

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-1 SECTOR)

Dated: 31.03.2023

Date of Zero Draft MoM sent to EAC: 28.03.2023

Approval by Chairman: 31.03.2023

Uploading on PARIVESH: 31.03.2023

MINUTES OF THE 25TH EXPERT APPRAISAL COMMITTEE
(INDUSTRY-1 SECTOR) MEETING HELD ON 21ST – 23RD MARCH, 2023

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003 through Video Conferencing

Time: 10:30 AM onwards

DAY-1: MARCH 21, 2023 [TUESDAY]

(i) Opening Remarks by the Chairman, EAC

Shri Rajive Kumar, Chairman EAC welcomed the Committee members and opened the EAC meeting for further deliberations.

Shri Rajive Kumar also appreciated the efforts of the Ministry's Team (Industry 1 Sector) for preparation and uploading the agenda of the EAC meetings and draft record of discussion very scientifically, systematically and timely on Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'F' & Member Secretary, EAC (Industry-1 Sector) appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Visit of Sub Committee of the EAC: The Chairman appreciated the efforts of the Sub Committee members for submitting timely field visit report excellent findings and recommendations in the site visit Report and suggesting various mitigation measures to protect the environment.

(iv) Confirmation of the Minutes of the 24th Meeting of the EAC (Industry-1 Sector) held during 28th February – 1st March, 2023 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **24th Meeting of the EAC (Industry-1 Sector) held during 28th February, 2023 – 1st March, 2023** conducted through Video Conferencing, and noted that minutes require following a modifications/factual correction:-

“Agenda No. 24.3: Proposed Integrated Cement Project: Clinker - 8.0 Million TPA (2 x 4.0 Million TPA), Cement - 5.0 Million TPA (2 x 2.5 Million TPA), CPP - 40 MW (2 x 20 MW), WHRS - 40 MW (2 x 20 MW) in phased manner along with Railway Siding at Village: Parewar, Tehsil & District: Jaisalmer, Rajasthan by Wonder Cement Limited- Consideration of Environmental Clearance.

[Proposal No. IA/RJ/IND1/413238/2023; File No. IA-J-11011/24/2022-IA-II(IND-I)]

[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid Upto: 07.08.2023]

The aforementioned proposal was considered and recommended by EAC in its 24th meeting of the EAC for Industry-I sector held on 28th February - 1st March, 2023. The PP vide email dated 10.03.2023 requested to consider the mentioning of the “colony of 30.54 Ha (built up area: 65000 sqm.)” in the MoM of 24th EAC, detailed as below:

Sl. No.	MoM ref point no.	Details given in MoM of 24 th EAC Meeting dated 7 th March 2023 (Agenda No. 24.3)	Request for change bythe PP																																		
1	Page No. 46 <u>Para 24.3</u> Proposal Subject	Proposed Integrated Cement Project: Clinker - 8.0 Million TPA (2 x 4.0 Million TPA), Cement - 5.0 Million TPA (2 x 2.5 Million TPA), CPP - 40 MW (2 x 20 MW), WHRS - 40 MW (2 x 20 MW) in phased manner along with Railway Siding at Village: Parewar, Tehsil & District: Jaisalmer, Rajasthan by Wonder Cement Limited- Consideration of Environmental Clearance.	Proposed Integrated Cement Project: Clinker - 8.0 Million TPA (2 x 4.0 Million TPA), Cement - 5.0 Million TPA (2 x 2.5 Million TPA), CPP - 40 MW (2 x 20 MW), WHRS - 40 MW (2 x 20 MW) in phased manner along with Railway Siding and Colony (Area- 30.54 ha & built up Area- 65000 Sq m) at Village: Parewar, Tehsil & District: Jaisalmer, Rajasthan by Wonder Cement Limited - Consideration of Environmental Clearance.																																		
2	<p>MoM ref point no. Page No. 48 Para 24.3.6 <u>Details as per MOM :</u> 24.3.6 The unit configuration and capacity of proposed project is given as below:</p> <table border="1"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Plant Equipment / Facility</th> <th colspan="2">Proposed Unit (Phase - I)</th> <th colspan="2">Proposed Unit (Phase - II)</th> </tr> <tr> <th>Configuration</th> <th>Capacity</th> <th>Configuration</th> <th>Capacity</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Clinker</td> <td>Kiln: 12000 TPD</td> <td>4.0 Million TPA</td> <td>Kiln: 12000 TPD</td> <td>4.0 Million TPA</td> </tr> <tr> <td>2.</td> <td>Cement</td> <td>Cement Mill: 330 TPH</td> <td>2.5 Million TPA</td> <td>Cement Mill: 330 TPH</td> <td>2.5 Million TPA</td> </tr> <tr> <td>3.</td> <td>CPP</td> <td>CPP Boiler (2 x 20 MW)</td> <td>20 MW</td> <td>20 MW</td> <td>40 MW**</td> </tr> <tr> <td>4</td> <td>WHRB</td> <td>PH & AQC Boiler: (2 x 20MW)</td> <td>20 MW</td> <td>20 MW</td> <td>40 MW **</td> </tr> </tbody> </table> <p>**Note: common Single turbine of 40 MW comprises of 20 MW WHRS & 20 MW CPP</p>			S. No.	Plant Equipment / Facility	Proposed Unit (Phase - I)		Proposed Unit (Phase - II)		Configuration	Capacity	Configuration	Capacity	1.	Clinker	Kiln: 12000 TPD	4.0 Million TPA	Kiln: 12000 TPD	4.0 Million TPA	2.	Cement	Cement Mill: 330 TPH	2.5 Million TPA	Cement Mill: 330 TPH	2.5 Million TPA	3.	CPP	CPP Boiler (2 x 20 MW)	20 MW	20 MW	40 MW**	4	WHRB	PH & AQC Boiler: (2 x 20MW)	20 MW	20 MW	40 MW **
S. No.	Plant Equipment / Facility	Proposed Unit (Phase - I)				Proposed Unit (Phase - II)																															
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1.	Clinker	Kiln: 12000 TPD	4.0 Million TPA	Kiln: 12000 TPD	4.0 Million TPA																																
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Request For Change:					
24.3.6 The unit configuration and capacity of proposed project is given as below:					
S. No.	Plant Equipment / Facility	Proposed Unit (Phase - I)		Proposed Unit (Phase - II)	
		Configuration	Capacity	Configuration	Capacity
1.	Clinker	Kiln: 12000 TPD	4.0 Million TPA	Kiln: 12000 TPD	4.0 Million TPA
2.	Cement	Cement Mill: 330 TPH	2.5 Million TPA	Cement Mill: 330 TPH	2.5 Million TPA
3.	CPP	CPP Boiler (2 x 20 MW)	20 MW	20 MW	40 MW**
4	WHRB	PH & AQC Boiler: (2 x 20MW)	20 MW	20 MW	40 MW **
** Note: common Single turbine of 40 MW comprises of 20 MW WHRS & 20 MW CPP					
5	Colony	Area- 30.54 ha. Built-up Area- 65000 M2			
6	Railway siding				
Sl. No.	MoM ref point no.	Details given in MoM of 24 th EAC Meeting dated 7 th March 2023 (Agenda No. 24.3)		Request for change	
3.	Page No. 64 Para 24.3.17 Deliberation (Point 1)	The instant proposal is for setting Integrated Cement Project: Clinker - 8.0 Million TPA (2 x 4.0 Million TPA), Cement - 5.0 Million TPA (2 x 2.5 Million TPA), CPP - 40 MW (2 x 20 MW), WHRS - 40 MW (2 x 20 MW) in phased manner along with Railway Siding.		The instant proposal is for setting Integrated Cement Project: Clinker - 8.0 Million TPA (2 x 4.0 Million TPA), Cement - 5.0 Million TPA (2 x 2.5 Million TPA), CPP - 40 MW (2 x 20 MW), WHRS - 40 MW (2 x 20 MW) in phased manner along with Railway Siding & Colony (Area- 30.54 ha & built up Area-65000 Sq. m)	

Deliberations by the EAC:

It was informed to the Committee members that PP has requested modifications in the MoM of 24th EAC for Industry-I sector held during 28th February - 1st March, 2023 pertaining to proposal agenda no. 24.3 as referred above. It was also mentioned by Project Proponent/ consultant that all desired modifications were part of their EIA report.

The EAC deliberated and noted that the request of the PP may be accepted and recommended for the incorporation of the above-mentioned corrections/modifications in the minutes of the meeting. Accordingly, aforementioned para 24.3, 24.3.6 and 24.3.17 (Point 1) stands modified in the minutes of 24th EAC (Industry-1) meeting as detailed in table above.”

(v) Modifications in the Minutes of the 23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2023 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2023** conducted through Video Conferencing. The Ministry while processing the file noted that there is a mismatch in the unit configuration and capacity of the proposed project of M/s Thakur Prasad Sao and Sons Pvt. Ltd. in MoM of 23rd EAC

meeting and accordingly the proposal is placed for modifications/factual correction, in the minutes of the 23rd EAC meeting for the project/activities.

“Agenda No. 23.4: Integrated Steel Plant with Pelletization Plant (2 x 0.6 MTPA), DRI Plant (3 x 1,10,000 TPA), MS Billets production of 4,00,000 TPA with IF of 2 x 8 Tonnes and 1 x 15 Tonnes and EAF (2 x 25 tonnes), Rolling Mill (2,00,000 TPA) Coal Washery (0.576 MTPA) with 78 MW CPP (24 MW #WHRB and 54MW #AFBC) at Village- Lahandabud, P.O.- H. Kantapali, Tehsil & District-Jharsuguda, Odisha by M/s Thakur Prasad Sao and Sons Pvt. Ltd. - Consideration of TOR.

[Proposal No. IA/OR/IND1/414111/2023; File No. IA-J-11011/13/2023-IA-II(IND-I)]

The aforementioned proposal was considered and recommended by EAC in its 23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2023. The Ministry while processing the file noted that there is a mismatch in the unit configuration and capacity of the proposed project in MoM of 23rd EAC meeting and communicated the same to the project proponent. The project proponent re-presented their case in the 25th EAC meeting and vide email dated 24.03.2023 also submitted the revised information w.r.t. configuration of induction furnace, CCM and addition of sponge iron, MS Billets/ Ingots, producer gas plant and slag crusher which may be corrected as following:

Ref in 23rd EAC MoM – Page No. 45 Para 23.4.7

Details Mentioned in the MoM of 23rd EAC meeting:

23.4.7 The unit configuration and capacity of proposed project is given as below:

S.No.	Plant Equipment/ Facility	Existing Facility as per EC dated 26.09.2012							
		Total		Implemented		Unimplemented		As per CTO	
		Config.	Cap.	Config.	Cap.	Config.	Cap.	Config.	Cap.
1.	Iron Ore Palletisation Plant	2 x 0.6 MTPA	2 x 0.6 MTPA	Not implemented		2 x 0.6 MTPA	2 x 0.6 MTPA	-	-
2.	SMS Unit								
	Induction Furnace	4 x 8 tonnes	4,00,000 TPA	2 x 8 and 2 x 15 tonnes	1,00,000 TPA	Complete plant operational	3,00,000 TPA	2 x 8 and 2 x 15 tonnes	3,00,000 TPA
	Electric Arc Furnace	2 x 25 tonnes		--		2 x 25 tonnes		--	
	Ladle Refining Furnace	2 x 25 & 2 x 15 tonnes		2 x 15 tonnes		2 x 25 tonnes		2 x 15 tonnes	
	Continuous Casting Machine	2 x 2 and 2 x 3 strand		2 x 2 and 2 x 3 strand		--		2 x 2 and 2 x 3 strand	
3.	Rolling Mill	2,00,000 TPA	2,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA
4.	Captive Power Plant								
	WHRB	24 MW	24 MW	8 MW	8 MW	16 MW	16 MW	8 MW	8 MW

S.No.	Plant Equipment/ Facility	Existing Facility as per EC dated 26.09.2012							
		Total		Implemented		Unimplemented		As per CTO	
		Config.	Cap.	Config.	Cap.	Config.	Cap.	Config.	Cap.
	AFBC	54 MW	54 MW	4 MW	4 MW	50 MW	50 MW	4 MW	4 MW
5.	Coal Washery	150 TPH	5,76,000 TPA	150 TPH	5,76,000 TPA	--	--	150 TPH	5,76,000 TPA

Proposed Modificaion / Correction

23.4.7 The unit configuration and capacity of proposed project is given as below:

S. No	Plant Equipment/ Facility	Existing Facility as per EC dated 26.09.2012								Final Configuration	Final Capacity
		Total		Implemented		Unimplemented		As per CTO			
		Config.	Cap.	Config.	Cap.	Config.	Cap.	Config.	Cap.		
1	Iron Ore Palletisation Plant	2 x 0.6 MTPA		Not implemented		2 x 0.6 MTPA		NIL		2 x 0.6 MTPA	
2	Sponge Iron Plant	3 x 350 TPD	3,30,000 TPA	1 x 350 TPD	1,10,000 TPA	2 x 350 TPD	2,20,000 TPA	1 x 350 TPD	1,10,000 TPA	3 x 350 TPD	3,30,000 TPA
3	SMS Unit										
	MS Billets/ Ingots	4,00,000 TPA		1,00,000 TPA		3,00,000 TPA		1,00,000 TPA		4,00,000 TPA	
	Induction Furnace	4 x 8 tonnes		2 x 8 and 1 x 15 tonnes (NOC obtained from SPCB)		Complete plant operation 1		2 x 8 and 1 x 15 tonnes		2 x 8 and 1 x 15 tonnes	
	Electric Arc Furnace	2 x 25 tonnes		--		2 x 25 tonnes		--		2 x 25 tonnes	
	Ladle Refining Furnace	2 x 25 & 2 x 15 tonnes		2 x 15 tonnes		2 x 25 tonnes		--		2 x 25 & 2 x 15 tonnes	
	Continuous Casting Machine	2 x 2 and 1 x 3 strand		2 x 2 and 1 x 3 strand		--		--		2 x 2 and 1 x 3 strand	
4	Rolling Mill	2,00,000 TPA		1,00,000 TPA		1,00,000 TPA		1,00,000 TPA		2,00,000 TPA	
5	Captive Power Plant										
	WHRB	24 MW		8 MW		16 MW		8 MW		24 MW	
	AFBC	54 MW		4 MW		50 MW		4 MW		54 MW	
6	Coal Washery	150 TPH	5,76,000 TPA	150 TPH	5,76,000 TPA	--	--	150 TPH	5,76,000 TPA	150 TPH	5,76,000 TPA
7	Producer's Gas Plant	--						6000 Nm ³ /Hr		6000 Nm ³ /Hr	
8	Slag Crusher	--						10 TPH		10 TPH	

Deliberations by the EAC:

It was informed to the Committee members the modifications / factual changes in the MoM of 23rd EAC for Industry-I sector held during February 14-15, 2023 pertaining to proposal agenda no. 23.4 as referred above.

The EAC deliberated and noted that the request of the PP may be accepted and **recommended** for the incorporation of the above-mentioned corrections/modifications in the minutes of the meeting. Accordingly, [Para 23.4.7, unit configuration and capacity of proposed project] stands modified in the minutes of 23rd EAC (Industry-1) meeting as detailed in table above.”

Details of the proposals considered during the 25th meeting **conducted** through **Video Conferencing**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

Consideration of Environmental Clearance Proposals

Agenda No. 25.1

25.1 Expansion within the existing Chanderiya land Zinc Smelter Complex [Expansion in Hydro Plant by adding 1 Induction Furnace, 1 Slab Casting Line & Integratin of RZO Unit in Hydro-II, Change in Product Mix in Pyro Unit on Total Metal Basis & Installation of 1 Lead Refinery, Expansion of CPP through Modernization and Installation of 1 BPTG, Recovery of Minor Metals & Installation of 5 DG Sets] by M/s Hindustan Zinc Ltd., located at Village Putholi, Ajoliya ka Khera & Biliya, Tehsil Gangrar & Chittorgarh, District Chittorgarh, Rajasthan – Consideration of Environmental Clearance.

**[Proposal No. IA/RJ/IND1/408023/2022; File No. IA-J-11011/279/2006-IA-II(IND-I)]
[Consultant; J.M. EnviroNet Pvt. Ltd; Valid Upto: 07.08.2023]**

25.1.1 M/s. Hindustan Zinc Limited has made an online application vide proposal no. IA/RJ/IND1/408023/2022 dated 16th December, 2022 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B & C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

25.1.2 Name of the EIA consultant: M/s. J.M. Environet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; Valid up to 07.08.2023, as on March 23, 2023].

Details submitted by Project proponent

25.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
05.09.2021	44 th meeting of the REAC (Industry-I) held on 13-14 th September, 2021	Term of Reference	27.09.2021	26.09.2025

25.1.4 The project of Hindustan Zinc Limited located in Villages: Putholi, Ajoliya Ka Khera & Biliya, Tehsil: Gangrar & Chittorgarh, District: Chittorgarh, Rajasthan is for expansion within the existing Chanderiya Lead Zinc Smelter Complex [Expansion in Hydro Smelter Unit by adding 1 Induction Furnace, 1 Slab Casting Line & Integration of RZO Unit in Hydro-II, Change in Product Mix in Pyro Unit on total metal basis & Installation of 1 Lead Refinery, Expansion of CPP through Modernization and Installation of 1 Back Pressure Turbine Generator, Recovery of Minor Metals & Installation of 5 DG Sets].

25.1.5 Environmental Site Settings:

S No.	Particulars	Details submitted by the PP	Remarks															
i.	Total land	335.89 Ha The total area is under possession of M/s. Hindustan Zinc Ltd.	Present land use of the Complex is Industrial & it will remain same after the expansion. Only the intensity of land use will be increased.															
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The land is under the possession of the company.	-															
iii.	Existence of habitation & involvement of R&R, if any.	Plant Site: No habitation exists within the plant site and as the proposed expansion will be done within the existing plant premises, which is already in possession of the company, Therefore, no R&R is applicable for the proposed expansion project. Study Area: <ul style="list-style-type: none"> • Putholi (~0.5 km in SW direction from plant site) • Ajoliya Ka Khera (~ 1 km in West direction from plant site) • Biliya (~ Adjacent in North direction from plant site). There are approx. 75 villages and 1 city in 10 km radius study area.	-															
iv.	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>24°58'30.50"N</td> <td>74°39'9.46"E</td> </tr> <tr> <td>2.</td> <td>24°58'34.43"N</td> <td>74°39'11.60"E</td> </tr> <tr> <td>3.</td> <td>24°58'35.82"N</td> <td>74°39'14.43"E</td> </tr> <tr> <td>4.</td> <td>24°58'33.96"N</td> <td>74°39'36.32"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	1.	24°58'30.50"N	74°39'9.46"E	2.	24°58'34.43"N	74°39'11.60"E	3.	24°58'35.82"N	74°39'14.43"E	4.	24°58'33.96"N	74°39'36.32"E	-
Point	Latitude	Longitude																
1.	24°58'30.50"N	74°39'9.46"E																
2.	24°58'34.43"N	74°39'11.60"E																
3.	24°58'35.82"N	74°39'14.43"E																
4.	24°58'33.96"N	74°39'36.32"E																

S No.	Particulars	Details submitted by the PP			Remarks						
		5.	24°58'18.91"N	74°39'33.98"E							
		6.	24°58'13.18"N	74°39'34.88"E							
		7.	24°57'57.79"N	74°39'30.35"E							
		8.	24°57'55.63"N	74°39'38.71"E							
		9.	24°57'54.54"N	74°39'41.36"E							
		10.	24°57'53.91"N	74°39'43.87"E							
		11.	24°57'56.10"N	74°39'51.41"E							
		12.	24°57'58.60"N	74°39'57.23"E							
		13.	24°57'59.74"N	74°40'8.81"E							
		14.	24°58'8.09"N	74°40'12.37"E							
		15.	24°58'10.99"N	74°40'0.27"E							
		16.	24°58'9.02"N	74°39'51.19"E							
		17.	24°58'16.98"N	74°39'56.74"E							
		18.	24°58'28.38"N	74°39'58.81"E							
		19.	24°58'31.63"N	74°40'0.68"E							
		20.	24°58'31.40"N	74°40'3.51"E							
		21.	24°58'30.70"N	74°40'11.81"E							
		22.	24°58'29.86"N	74°40'27.02"E							
		23.	24°58'24.68"N	74°40'34.25"E							
		24.	24°58'24.91"N	74°40'35.92"E							
		25.	24°58'21.04"N	74°40'43.80"E							
		26.	24°58'0.39"N	74°40'23.62"E							
		27.	24°57'31.40"N	74°40'10.48"E							
		28.	24°57'29.94"N	74°40'9.10"E							
		29.	24°57'34.48"N	74°39'53.20"E							
		30.	24°57'32.78"N	74°39'26.91"E							
		31.	24°57'24.84"N	74°39'5.46"E							
		32.	24°57'20.34"N	74°38'37.47"E							
		33.	24°57'21.27"N	74°38'34.40"E							
		34.	24°57'28.56"N	74°38'35.20"E							
		35.	24°57'49.89"N	74°38'41.86"E							
		36.	24°57'47.01"N	74°38'55.92"E							
		37.	24°57'48.63"N	74°38'57.71"E							
		38.	24°57'50.88"N	74°39'5.55"E							
		39.	24°57'50.82"N	74°39'9.21"E							
		40.	24°57'53.17"N	74°39'10.77"E							
		41.	24°57'53.43"N	74°39'13.24"E							
		42.	24°57'53.35"N	74°39'15.57"E							
		43.	24°57'56.21"N	74°39'18.65"E							
		44.	24°57'59.88"N	74°39'25.09"E							
		45.	24°58'4.03"N	74°39'23.47"E							
		46.	24°58'18.43"N	74°39'27.68"E							
		47.	24°58'23.31"N	74°39'20.43"E							
		48.	24°58'26.55"N	74°39'14.98"E							
v.	Elevation of the project site	390 m to 400 m above mean sea level.									
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.			-						
vii.	Water body exists within the project site as well as study area	<p>Plant site: Putholi Nala (Passing through the plant site plant site.)</p> <p>Study area: Following water body fall within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Water body	Distance (km)	Direction				Request was submitted to Water resource Department Chittorgarh to issue NOC w.r.t HFL of nearest River /nallah Adjacent to CLZS
Water body	Distance (km)	Direction									

S No.	Particulars	Details submitted by the PP			Remarks
		Berach River	Adjacent	East	Complex in compliance to the Ministry's O.M. vide F. No. 22-39/2020-IA.III dated 14.02.2022. A NOC letter has been issued by Executive Engineer Water Resource Department vide letter No. 6872 dated 16.01.2023 also stating that Berach river passes in the east direction approximately 0.5 km from the Chanderiya Lead Zinc Smelter, whose water has not reached the Chanderiya Lead Zinc Smelter complex in last 25 years.
		Gambhir Nadi	~4.0 km	South	
		Nagdi ka Nala	~8.5 km	NNE	
		Canal	~8 km	WNW	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. 17 Reserved Forest and 1 Protected Forests exist within 10 km radius of the plant site.			
ix.	Interlinked Project	Fertilizer plant is an interlinked project at project site, however it is not installed yet due to land conversion issue.			

25.1.6 The existing project was accorded Concurrence letter initially for Pyro Plant vide no. J-11013/29/92-EI dated 03/06/1983; Production capacity of Pyro Plant was increased from 105000 TPA (Zn - 70,000 TPA + Pb – 35,000 TPA) to 140000 TPA (Zn – 105000 TPA + Pb - 35000 TPA) vide NOC obtained from RSPCB vide no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05/03/2004. Environmental Clearance for {Hydro Plant} Zinc Smelter I (1,70,000 TPA Zinc Production) & CPP (154MW) vide F.No.J-11011/158/2003-IA.II(I) 31/03/2004; Environmental Clearance for Ausmelt Lead Smelter Plant (60,000 TPA) vide F.No.J-11011/17/2005-IA.II (I) 3/8/2005; Environmental Clearance for {Hydro Plant } Zinc Smelter II (2,10000 TPA) and expansion of {Hydro Plant } Zinc Smelter I (From 1,70,000 TPA to 2,10,000 TPA) vide no J-11011/279/2006-IA.II(I) dated 06/12/2006; Environmental Clearance for Inclusion of Fumer Plant within the {Hydro Plant } Zinc Smelter II vide F.No.J-11011/279/2006-IA.II(I) 5/10/2015; Environment Clearance for Capacity Expansion in Hydro I & Hydro II Zinc Smelters (from 4,20,000 TPA to 5,04,000 TPA) through debottlenecking vide letter no. J-11011/279/2006-IA.II (I) dated 14/10/2020.

Existing Environmental Clearances obtained as reported by the PP		
Particulars	Document no.	Date
Concurrence for the Lead Zinc Smelter {Pyro Plant} by Principle Scientific Officer, GOI Environmental Department, New Delhi	Vide Letter No. J-11013/29/92-EI	03.06.1983
EC letter for Hydro-I plant	Vide F.No.J-11011/158/2003-IA.II(I)	31.03.2004
EC for Ausmelt Lead Smelter Plant	Vide F.No.J-11011/17/2005-IA.II (I)	03.08.2005
EC letter for Hydro-II plant	Vide F.No. J-11011/279/2006-IA.II (I)	06.12.2006
EC letter for Inclusion of Fumer plant with Hydro-II Plant	Vide F.No.J-11011/279/2006-IA.II(I)	05.10.2015
Environment Clearance (EC) for Hydro-I & II unit on combined basis with production capacity of 5,04,000 TPA Zinc by MOEFCC, New Delhi	Vide letter no. J-11011/279/2006-IA.II (I)	14.10.2020

25.1.7 Current CTO for Pyro Plant has been accorded by Rajasthan State Pollution Control Board (RSPCB) vide Order no. 2020-2021 / HDF /3070 dated 08/06/2020 (valid upto 29/02/2024). CTO for Hydro-I Plant and CPP (154 MW) has been accorded by RSPCB vide Order No. 2019-2020/HDF/2859 dated 16/01/2020 (valid upto 31/08/2023). CTO for Hydro- II Plant & CPP (100 MW) has been accorded by RSPCB vide Order no. 2019-2020/HDF/2818 dated 18/12/2019 (valid upto 31/01/2024). CTO for Fumer Plant within existing Hydro -II plant was accorded by RSPCB vide Order no. 2020-2021/HDF/3009 dated 08/05/2020 (valid upto 31/03/2025). CTO for Ausmelt Lead Plant was accorded from RSPCB vide Order no. 2020-2021/HDF/3069 dated 05/06/2020 (valid upto 31/08/2023). CTO for installation of 2 D.G. Sets (2 x 8MW) was obtained from RSPCB vide Order no. 2020-2021 / HDF / 3068 dated 05/06/2020 (valid upto 30/04/2024). CTO for Township was obtained vide Order no. 2018-2019/CPM/5201 dated 23/05/2018.

Existing Consents to Establish / Consent to Operate obtained as reported by the PP		
Particulars	Document no.	Date
N.O.C for the adequacy of pollution control measures for Proposed Lead Zinc Smelter at Village Chanderiya, Dist. Chittorgarh, Raj.	vide letter no. 12(723) RPCB/NOC/1535	26.04.1991
CTE for proposed enhancement of production zinc from 70,000 TPA to 1,05,000 TPA at Zinc Smelter, Chanderiya	vide letter no. F.12 (Chittor-60) RPCB/Gr. III/19418	05.03.2004
CTE for installation of Zinc smelter plant (1,70,000 TPA) and captive power plant (154MW) at Chanderiya, Chittorgarh	vide letter no. F.12 (Chittor-60) RPCB/Gr. III/14372	19.07.2004
CTE for Zinc manufacturing unit up to 2,50,000 MT/Annum capacity & captive power plant of 100 MW	vide letter no. F.12(CH-78) RPCB/Gr.III/2588	08.01.2007

Existing Consents to Establish / Consent to Operate obtained as reported by the PP		
Particulars	Document no.	Date
CTE for Fumer plant (Pyro Metallurgical Fuming Process) within existing Hydro Zinc Smelter Phase-II Plant	Vide Order no. 2017-2018/CPM/4915	01.08.2017
CTE for implementation of pollution control scheme for 60,000 TPA Lead Smelter with existing Zinc Smelter	Vide letter no. F.12(CH-70) RPCB/Gr.III/752	14.09.2005
CTE for DG (2*8 MW) at Pyro plant	Vide Order no. 2012-2013/CPM/1610	20.03.2013
CTO for Pyro Metallurgical Zinc Smelter Plant	Vide Order no. 2020-2021 / HDF /3070	08.06.2020
CTO for production/manufacturing of Cadmium Sponge(680 MTPA), Copper Cement (510.00MTPA), Electric Power (154.00MW), Low Grade Lead Concentrate (30,000MTPA), Sulphuric Acid (289,000 MTPA) & Zn	Vide Order No. 2019-2020/HDF/2859	16.01.2020
CTO for Hydro-II & 100MW electricity	Vide Order no. 2019-2020/HDF/2818	18.12.2019
CTO for Fumer Plant (Pyro Metallurgical fuming process) within existing Hydro Zinc Smelter Phase-II plant	Vide Order no. 2020-2021/HDF/3009	08.05.2020
CTO for Ausmelt Lead Plant	Vide Order no. 2020-2021/HDF/3069	05.06.2020
CTO for installation of 2 D.G. Sets (2 x 8MW)	Vide Order no. 2020-2021/ HDF / 3068	05.06.2020
CTO for WHRB and STP	Vide Order no. 2021-2022/HDF / 8858	18.01.2022
CTO for Township	Vide Order no. 2018-2019/CPM/5201	23.05.2018
CTO letter obtained for the expansion of Hydro-I plant (As per the EC obtained on 14.10.2020)	Vide Order No. 2020-2021/HDF/3324	26.03.2021
CTO letter obtained for the expansion of Hydro-II plant (As per the EC obtained on 14.10.2020)	Vide Order No. 2020-2021/HDF/3325	26.03.2021

25.1.8 Implementation status of the existing EC:

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
Lead Zinc Smelter Unit (Pyro Plant)						
1.	Refined Lead	TPA	35,000	1 x 140,000	<ul style="list-style-type: none"> Concurrence letter vide no. J-11013/29/92-EI dated 03.06.1983 CTE vide letter no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05.03.2004 CTO vide Order no. 2020-2021 / HDF /3070 dated 08.06.2020 	<u>Implemented</u>
2.	Refined Zinc	TPA	105,000			
3.	Total	TPA	140,000			
4.	Captive Power Plant	MW	90	1 x 90	<ul style="list-style-type: none"> Concurrence letter vide no. J-11013/29/92-EI dated 03.06.1983 	<u>Not Implemented</u>
6.	Zn-Cd Alloy / Cadmium Metal (on equivalent cadmium basis) (By-product)	TPA	375	1 x 375	<ul style="list-style-type: none"> CTO vide Order no. 2020-2021 / HDF / 3070 dated 08.06.2020 	<u>Implemented</u>

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
7.	Copper Matte / Copper Metal (on equivalent copper basis) (By-product)	TPA	2100	1 x 2100		
8.	Silver (on equivalent silver basis) (By-product)	TPA	74	1 x 74		
9.	Sulphuric Acid (By-product)	TPA	1,76,000	1 x 1,76,000		
Hydro-I + Hydro-II Zinc Smelter Unit & Captive Power Plant (Combined Capacity)						
1.	Zinc (Hydro- I + II) / Zinc Alloys and its Compounds	TPA	5,04,000	2 x 2,52,000	• EC vide no. J-11011/158/2004-IA.II(I) dated 41.04.2004	<u>Implemented</u>
					• EC vide no J-11011/279/2006-IA.II(I) dated 06.12.2006	<u>Implemented</u>
					• EC vide no. J-11011/279/2006-IA.II(I) dated 05.10.2015	The Fumer plant has been installed but could not be operated due to some process incident during commissioning. Its operation is expected soon.
					• EC vide no J-11011/279/2006-IA.II(I) dated 14.10.2020	<u>Implemented</u>
2.	Captive Power Plant	MW	154	2x77	• EC vide no J-11011/158/2004-IA.II(I) dated 41.04.2004 • CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020.	<u>Implemented</u>
4.	DG	KVA	1750	1 x 750 1 x 1000	• CTO vide Order no. 2020-2021/HDF / 3068 dated 05.06.2020 (Valid upto 30.04.2024). • CTO vide Order no. 2021-2022/HDF / 8858 dated 18.01.2022 (Valid upto 31.12.2026).	<u>Implemented</u>
4.	WHRB	MW	9.4	1 x 9.4		
7.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020	<u>Implemented</u>
8.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510		
9.	Low grade lead concentrate (By-product)	TPA	30, 000	1 x 30, 000		
10.	Sulphuric Acid (By-product)	TPA	3,07,774	1 x 3,07,774	• CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020 • CTO for Hydro 1 vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6085 - 6087 dated 26.3.2021	<u>Implemented</u>
11.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	• CTO for Hydro 1 vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6085 - 6087 dated 26.3.2021	<u>Implemented</u>
12.	Sodium Chloride (By-product)	TPA	250	1 x 250		
14.	Sodium Sulphate (By-product)	TPA	1250	1* 1250		
Hydro II						
1.	Captive Power Plant	MW	100	1 x 100	• EC vide no. J-11011/279/2006-IA.II(I) dated 06.12.2006	<u>Implemented</u>

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
2.	DG	KVA	21,780	1 x 625 2 x 1250 1 x 125 2 x 9265	• CTO vide Order no. 2020-2021/HDF / 3068 dated 05.06.2020 (Valid upto 30.04.2024).	<u>Implemented</u>
4.	WHRB	MW	25.3	1 x 4.3 1 x 21	• EC vide no. J-11011/279/2006-IA.II(I) dated 05.10.2015 • CTO vide Order no. 2020-2021/HDF/4009 dated 08.05.2020	<u>Implemented</u>
4.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	• EC vide no J-11011/279/2006-IA.II(I) dated 14.10.2020	<u>Implemented</u>
5.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510		
6.	Lead Silver Cake (By-product)	TPA	16000	1 x 16000	• CTO vide Order no. 2020-2021/HDF/4009 dated 08.05.2020	<u>Implemented</u>
7.	Copper Speiss/ Copper Residue (By-product)	TPA	700	1 x 700		
8.	Sulphuric Acid (By-product)	TPA	307774	1 x 307774	• CTO vide Order no. 2019-2020/HDF/2818 dated 18.12.2019 • CTO vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6088-6090 dated 26.3.2021	<u>Implemented</u>
9.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	• CTO vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6088-6090 dated 26.3.2021	<u>Implemented</u>
10.	Sodium Chloride (By-product)	TPA	250	1 x 250		
11.	Sodium Sulphate (By-product)	TPA	1250	1 x 1250		
Ausmelt Lead Smelter Plant						
1.	Lead	TPA	60, 000	1 x 60, 000	• EC-J-11011/17/2005-IA.II(I) dated 04.08.2005. • CTO vide Order no. 2020-2021/HDF/4069 dated 05.06.2020	<u>Implemented</u>
2.	Sulphuric Acid (By-product)	TPA	50500	1 x 50500	• CTO vide Order no. 2020-2021/HDF/4069 dated 05.06.2020	<u>Implemented</u>
4.	Copper Sulphate (By-product)	TPA	7920	1 x 7920		
4.	Silver (on equivalent silver basis) (By-product)	TPA	94.71	1 x 94.71		
5.	Zinc Rich Dust (By-product)	TPA	6600	1 x 6600		

25.1.9 The unit configuration and capacity of existing and proposed project is given as below:

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configura tion	Capacity	Configura tion	Capacity	Configu ration	
Lead Zinc Smelter Unit (Pyro Plant)									
1	Refined Lead	TPA	35,000	1 x 140,000	1,05,000	1x 140,000	140000	1 x 140,000	Change in product mix*
2	Refined Zinc	TPA	105,000		35,000		[Total Metal Basis]		
	Total	TPA	140,000		140,000 (Change in product mix only)		140,000 (Change in product mix only)		
3	Captive Power Plant	MW	90	1 x 90	NIL		90		Not installed

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	
4	DG	KVA	NIL	NIL	2875	1x625 1x1500 1x750	2875	1x625 1x1500 1x750	To be added
5	Zn-Cd Alloy / Cadmium Metal (on equivalent cadmium basis) (By-product)	TPA	375	1 x 375	222	1 x 222	597	1 x 597	Increase in production capacity
6	Copper Matte / Copper Metal (on equivalent copper basis) (By-product)	TPA	2100	1 x 2100	1238	1 x 1238	3338	1 x 3338	Increase in production capacity
7	Silver (on equivalent silver basis) (By-product)	TPA	74	1 x 74	728.29	1 x 728.29	802.29	1 x 802.29	Increase in production capacity
8	Sulphuric Acid (By-product)	TPA	1,76,000	1 x 1,76,000	47,505	1 x 47,505	2,23,505	1 x 2,23,505	Increase in production capacity
9	Antimony Slag/Antimony Trioxide(Sb2O3) (on equivalent Antimony basis) (By-product)	TPA	NIL	NIL	992	1 x. 992	992	1 x 992	To be added
10	Lead Oxide/ Concentrate (by products)	TPA	NIL	NIL	20,000	1 x 20,000	20,000	1 x 20,000	To be added
11	Calomel/Mercury Sludge (on equivalent mercury basis) (By-product)	TPA	NIL	NIL	14.8	1 x 14.8	14.8	1 x 14.8	To be added

Hydro-I + Hydro-II Zinc Smelter Unit & Captive Power Plant (Combined Capacity)

1.	Zinc (Hydro- I + II) / Zinc Alloys and its Compounds	TPA	5,04,000	2 x 2,52,000	1,26,000	1 x 1,26,000	6,30,000	2 x 2,52,000 1 x 1,26,000	Increase in Production Capacity
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Hydro I

2.	Captive Power Plant	MW	154	2x77	36	2x18	190	2x95	Increase in Production Capacity
3.	DG	KVA	1750	1 x 750 1 x 1000	NIL	Nil	1750	1 x 750 1 x 1000	No change
4.	WHRB	MW	9.4	1 x 9.4	Nil	Nil	9.4	1 x 9.4	No change
5.	Back Pressure Turbine Generator	MW	NIL	Nil	6	1 x 6	6	1 x 6	To be added
6.	DG FGD	KVA	NIL	Nil	500	1 x 500	500	1 x 500	To be added
7.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	NIL	NIL	680	1 x 680	No change
8.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510	NIL	NIL	510	1 x 510	No change
9.	Low grade lead concentrate (By-product)	TPA	30,000	1 x 30,000	NIL	NIL	30,000	1 x 30,000	No change
10.	Sulphuric Acid (By-product)	TPA	3,07,774	1 x 3,07,774	Nil	Nil	3,07,774	1 x 3,07,774	No change
11.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	NIL	NIL	20	1 x 20	No change
12.	Sodium Chloride (By-product)	TPA	250	1 x 250	Nil	Nil	250	1 x 250	No change

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	
13.	Sodium Sulphate (By-product)	TPA	1250	1* 1250	Nil	Nil	1250	1x1250	No change
Hydro II									
1.	Captive Power Plant	MW	100	1 x 100	NIL	Nil	100	1 x 100	No Change
2.	DG	KVA	12,515	1 x 625 2 x 1250 1 x 125 2 x 9265	750	1 x 750	13,265	1 x 625 2 x 1250 1 x 125 2 x 9265 1 x 750	Additional DG to be installed
3.	WHRB	MW	25.3	1 x 4.3 1 x 21	1	1 x 1 -	26.3	1 x 5.3 1 x 21	Increase in power generation
4.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	NIL	NIL	680	1 x 680	No change
5.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510	NIL	NIL	510	1 x 510	No change
6.	Lead Silver Cake (By-product)	TPA	16000	1 x 16000	16000	1 x 16000	32000	1 x 32000	Increase in production capacity
7.	Copper Speiss/ Copper Residue (By-product)	TPA	700	1 x 700	500	1 x 500	1200	1 x 1200	Increase in production capacity
8.	Sulphuric Acid (By-product)	TPA	307774	1 x 307774	Nil	Nil	307774	1 x 307774	No change
9.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	NIL	NIL	20	1 x 20	No change
10.	Sodium Chloride (By-product)	TPA	250	1 x 250	Nil	Nil	250	1 x 250	No change
11.	Sodium Sulphate (By-product)	TPA	1250	1 x 1250	Nil	Nil	1250	1 x 1250	No change
Ausmelt Lead Smelter Plant									
1.	Lead	TPA	60,000	1 x 60,000	NIL	NIL	60,000	1 x 60,000	No Change
2.	Sulphuric Acid (By-product)	TPA	50500	1 x 50500	NIL	NIL	50500	1 x 50500	No Change
3.	Copper Sulphate (By-product)	TPA	7920	1 x 7920	NIL	NIL	7920	1 x 7920	No Change
4.	Silver (on equivalent silver basis) (By-product)	TPA	94.71	1 x 94.71	NIL	NIL	94.71	1 x 94.71	No Change
5.	Zinc Rich Dust (By-product)	TPA	6600	1 x 6600	NIL	NIL	6600	1 x 6600	No Change
Minor Metal Recovery Unit									
1.	Lead Bullion / Lead Silver Cake / Lead Cake/Low Grade Lead Cake / Low Grade Lead Material (on Equivalent metal basis)	TPA	NIL	NIL	8873	1 x 8873	8873	1 x 8873	To be added
2.	Cadmium Sponge/ Cadmium Metal/ Low Grade Cadmium (on Equivalent metal basis)	TPA	NIL	NIL	3050	1 x 3050	3050	1 x 3050	To be added

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	
3.	Cobalt / Cobalt Concentrate (on Equivalent metal basis)	TPA	NIL	NIL	50	1 x 50	50	1 x 50	To be added
4.	Ni cake / Ni Compounds (on Equivalent metal basis)	TPA	NIL	NIL	30	1 x 30	30	1 x 30	To be added
5.	Zn So4 Solution (on Equivalent metal basis)	TPA	NIL	NIL	2781	1 x 2781	2781	1 x 2781	To be added
6.	CuSO4 Solution/ Copper Cement/ CU Matte (on Equivalent metal basis)	TPA	NIL	NIL	2436	1 x 2436	2436	1 x 2436	To be added

Note: *In Pyro Plant, Change in Product Mix has been proposed on total Metal basis i.e. 1,40,000 TPA (Refined Lead or Refined Zinc or Product Mix of both Metals).

25.1.10 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S. No.	Raw Material	Unit	Quantity			Source	Distance	Mode of Transport
			Existing	Additional	Total After expansion			
Zinc Lead Smelter Unit (Pyro Plant+ Ausmelt)								
1.	Zinc concentrate	TPA	199500	58000	257500	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
2.	Lead concentrate	TPA	138500	196500	335000	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
3.	Coke	TPA	100000	NIL	100000	Indigenous /imported	~1500 km	Through Rail / Trucks
4.	Lime Stone	TPA	45000	NIL	45000	Nearby Mines	~250 km	Through Trucks
5.	Iron ore /Iron Oxide	TPA	30000	NIL	30000	Mines Jabalpur	~1000 km	Through Trucks
6.	Zinc Oxide /Zinc Dust /Zinc Bearing material/ Zinc Dross	TPA	NIL	50000	50000	Market/ HZL Smelters Approx. / From authorised recyclers	~ 200 km	Through Trucks
7.	Lead Oxide / Lead Silver Cake / Low Grade Lead Material / Lead Bearing Outsourced Secondaries	TPA	Nil	50000	50000	Market/ HZL Smelters Approx./ From authorised recyclers	~ 200 km	Through Trucks
8.	Silica	MT	3600	NIL	3600	Nearby Mines	~150 km	Through Trucks
9.	Coal/ Coke	MT	1500	NIL	1500	Indigenous /imported	~1500 km	Through Rail / Trucks
10.	Dolomite	MT	1700	NIL	1700	Nearby Mines	~150 km	Through Trucks
Hydro I & Hydro-II Zinc Smelter Unit (Incl. Fumer plant) and CPP								
1.	Zinc concentrate	TPA	698458	NIL	698458	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
2.	Calcine (ZnO)	TPA	337990	8916	346906	HZL Smelters	~200 km	Through Trucks
3.	Zinc Dross/ Ash/ Zinc bearing waste	TPA	15000	NIL	15000	Market/ HZL Smelters Approx./ From authorised recyclers	~200 km	Through Trucks
4.	Aluminium Metal	TPA	4800	NIL	4800	Market	~200 km	Through Trucks
5.	Magnesium Metal	TPA	60	NIL	60	Market	~200 km	Through Trucks
6.	Copper Metal	TPA	600	NIL	600	Market	~200 km	Through Trucks
7.	Limestone for FGD	TPA	NIL	131465	131465	Nearby Mines	~200 km	Through Trucks
8.	Zinc Cathode	TPA	NIL	200000	200000	HZL Smelter	~200 km	Through Trucks
9.	RZO	TPA	NIL	45000	45000	HZL Smelter	~200 km	Through Trucks

S. No.	Raw Material	Unit	Quantity			Source	Distance	Mode of Transport
			Existing	Additional	Total After expansion			
Minor Metal Recovery Unit								
10.	PF Cake	TPA	NIL	8800	8800	HZL Smelter	Captive / 200 km,	Through Trucks
11.	Cadmium Sponge	TPA	NIL	4000	4000	HZL Smelter	Captive / 200 km,	Through Trucks
12.	Copper Matte	TPA	NIL	3500	3500	HZL Smelter	Captive / 200 km,	Through Trucks
13.	Cobalt Cake	TPA	NIL	2000	2000	HZL Smelter	Captive / 200 km,	Through Trucks
14.	Copper Dross	TPA	NIL	12000	12000	HZL Smelter	Captive / 200 km,	Through Trucks
15.	Coal	TPA	NIL	1480	1480	HZL Smelter	Approx. 1500kms	Through Trucks
16.	Zinc Dust	TPA	NIL	2210	2210	HZL Smelter	Captive / 200 km,	Through Trucks
17.	Sulphuric Acid	TPA	NIL	6500	6500	HZL Smelter	Captive / 200 km,	through pipeline; through Tankers

25.1.11 Existing Water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water).

Permissions for drawl of water obtained for CLZS Complex are obtained as under:

- Letter reg. allocation of water (1500 MCFT) from Gosunda Dam obtained from Energy Dept., Govt. of Rajasthan vide letter no. F 2(28)Energy/86-IV/ dated 19/11/1994.
- Agreement signed between Municipal Corporation Udaipur, Urban Improvement Trust, Udaipur and Hindustan Zinc Ltd. on 09/05/2021 for supply of treated water from Proposed STP (20 MLD) at Udaipur .
- Letter of acceptance from Udaipur Smart City Limited vide letter no. {}USCL/2017-18/71 dated 22/06/2017 for Supply of 50% of the treated water of Proposed STPs (25 MLD + 10 MLD + 5 MLD) of Udaipur Town.
- Agreement between Nagar Parishad, Chittorgarh and Hindustan Zinc Ltd. on 05/01/2021 for supply of Treated water (3000 KLD) from STP at Chittorgarh.

25.1.12 Existing Total Power requirement of the Chanderiya Lead Zinc Smelter Complex is 260 MW. The same is being sourced from existing CPPs (154 MW & 100 MW) and WHRS of 34.70 MW capacity, Solar Panels located within the complex & AVVNL. 8 DG Sets are available for back up and emergency purpose with capacity as 38.34at CLZS Complex. 48 MW additional power will be required for the expansion project, which will be fulfilled from the existing sources and Proposed CPP expansion from 254 MW to 290 MW and BPTG. 5 DG Sets (1 x 625 kVA, 1 x 1500 kVA, 1 x 750 kVA at Pyro Plant; 500 KVA at CPP; 1 x 750 kVA at Hydro II) have been proposed for back up and emergency purpose within the CLZS Complex.

25.1.13 Baseline Environmental Studies:

Period	Post Monsoon Season (October to December, 2020)	One Month Additional Baseline Study (Oct.,2021)																							
AAQ parameters at 09 locations & Additional study for 13 Locations	<ul style="list-style-type: none"> PM_{2.5} - 26.1 to 55.4 µg/m³ PM₁₀ - 58.2 to 92.4 µg /m³ SO₂ - 5.8 to 19.7 µg/m³ NO₂ - 13.8 to 38.6 µg/m³ CO - BDL to 1.13 mg/m³ 	<ul style="list-style-type: none"> PM_{2.5} - 25.4 to 53.9 µg/m³ PM₁₀ - 55.4 to 91.5 µg /m³ SO₂ - 5.5 to 22.1 µg/m³ NO₂ - 12.3 to 36.9 µg/m³ CO - BDL to 1.15 mg/m³ 																							
Incremental GLC level	<ul style="list-style-type: none"> PM_{2.5} = 3.49 µg/m³ (~4.5 Km in SW direction from the plant site) PM₁₀ = 10.51 µg /m³ (~4.7 Km in SW direction from the plant site) SO₂ = 2.19 µg/m³ (~4.87 Km in SSW direction from the plant site) NO_x = 8.75 µg/m³ (~7.15 Km in SSW direction from the plant site) CO = 47.2 µg/m³ (~8.82 Km in SSW direction from the plant site) 	-																							
Ground water quality at 08 locations	<ul style="list-style-type: none"> pH - 7.34 to 8.02 Total Hardness - 250.0 to 1005.0 mg/l Chlorides – 137.97 to 501.46 mg/l Fluoride - 0.81 to 1.23 mg/l Heavy Metals - Iron as Fe: 0.11 to 0.19 mg/l 	-																							
Surface water quality at 05 Locations	<ul style="list-style-type: none"> pH - 7.52 to 7.76 DO - 5.9 to 7.4 mg/l BOD – 6.1 to 16.0 mg/l COD – 26.9 to 59.0 mg/l 	-																							
Noise levels at 09 locations	Noise Level During Day Time –53.1 to 68.9 Leq dB (A) Noise Level During Night Time –43.3 to 62.3 Leq dB (A)	-																							
Traffic assessment study findings	<ul style="list-style-type: none"> Traffic study has been conducted at approach road to NH – 79 Near Narpath Ki Khedi which is approximately 7.35 km in WSW direction from plant site. Transportation of raw material & finished product will be done 100% by road. Existing PCU is 938.2979 PCU/hr on approach road to NH – 79 Near Narpath Ki Khedi and existing LOS is: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Narpath Ki Khedi</td> <td>938.2979</td> <td>5400</td> <td>0.173</td> <td>A</td> </tr> </tbody> </table> <p>Conclusion: The level of service will be “A” i.e., Excellent for NH 79</p> <p>➤ PCU load after expansion project will be 34 (Pyro & Ausmelt) + 25 (Hydro I & II) + 9 (minor metal recovery unit) for Inward Traffic and 23 (Pyro) + 11 (Hydro I & II) + 9 (minor metal recovery unit) + 49 (Solid & Hazardous Waste) for outward Traffic and level of service (LOS) will be:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Road</th> <th>Increased PCU / hr.</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	Narpath Ki Khedi	938.2979	5400	0.173	A	Road	Increased PCU / hr.	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS						
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Road	Increased PCU / hr.	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																				

Period	Post Monsoon Season (October to December, 2020)			One Month Additional Baseline Study (Oct.,2021)		
	Approach road to NH – 79	592 / 24 = 24.67	938.2979 + 24.67 = 692.9679	5400	0.178	A
	<p>* Capacity as per IRC- 64-1990 & 106-1990 Guidelines for capacity for roads.</p> <p>▪ Conclusion: The LOS value will be “A” i.e. “Excellent” for approach road to NH – 79 due to the proposed expansion project, there will be addition of Heavy and Light motor vehicles in the existing traffic. Thus, it can be concluded that the present road network is good enough to bear the increased traffic load.</p>					
Flora and fauna	<p>Six schedule - I species i.e., <i>Panthera pardus</i> (Leopard), <i>Prionailurus rubiginosus</i> (Rusty Spotted Cat), <i>Gyps bengalensis</i> (White-rumped Vulture), <i>Falco jugger</i> (Laggar Falcon), <i>Pavo cristatus</i> (Indian Peafowl), <i>Varanus bengalensis</i> (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act’ 1972.</p> <p>Wildlife conservation plan for the Schedule I species i.e. <i>Panthera pardus</i> (Leopard), <i>Prionailurus rubiginosus</i> (Rusty Spotted Cat), <i>Gyps bengalensis</i> (White-rumped Vulture), <i>Falco jugger</i> (Laggar Falcon), <i>Pavo cristatus</i> (Indian Peafowl), <i>Varanus bengalensis</i> (Bengal Monitor lizard), along with <i>Hystrix indica</i> (Indian Crested Porcupine) & <i>Semnopithecus entellus</i> (Bangal Hanuman Langur) has been prepared and submitted to to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The same has been forwarded to Chief Conservator of Forest, Udaipur vide Letter No. F)(FCA/DFO/2022-23/1100 dated 10.02.2023. The approval of the WLCP is under process with the State Department.</p> <p>The total budget allocated for implementation of Wildlife Conservation plan is Rs. 7.86 Crores for the implementation period of 10 years.</p>					

25.1.14 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
Hazardous waste						
1.	Cooler cake (TPA)	7.2	6,000	NIL	6,000	Reuse/Recycle/Sale to registered recycler/Co-processing/ Disposal in SLF
2.	Anode mud (TPA)	7.2	2,200	NIL	2,200	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
3.	Used/Spent oil (KLA)	5.1	96	NIL	96	Reuse/ Sale to registered recycler
4.	Waste oil (KLA)	5.2	270	NIL	270	Reuse/Sale to registered recycler
5.	Cobalt cake (TPA)	7.2	1,000	NIL	1,000	Reuse/Recycle/Sale to registered

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
						recycler /Disposed in SLF
6.	Purification cake / Enrichment cake (TPA)	7.2	12,520	NIL	12,520	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
7.	Spent catalyst (KLA)	17.2	60	NIL	60	Sale to registered recycler/disclosed in SLF
8.	Non-ferrous Sludge from ETP and scrubbers (TPA)	7.4	13,600	16400	30000	Reuse/Recycle/Sale to registered recycler /Disposed in SLF/Co processing in Cement industries
9.	Discarded containers/barrels/liners used for Haz. Waste/chemicals (Nos./yr)	33.1	1,400	NIL	1,400	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
10.	Flue gas cleaning residue (TPA)	37.2	2.0	NIL	2.0	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
11.	Spent ion exchange resin containing toxic metal (TPA)	35.2	1.0	NIL	1.0	Sale to registered recycler/disclosed in secure land fill
12.	Water purification Resin (TPA)	34.2	2.0	NIL	2.0	Sale to registered recycler/disclosed in secure land fill
13.	Exhaust Air or Gas Cleaning Residue (Kg/Year)	35.1	100	NIL	100	Approved Incinerator
14.	Copper Bearing Lead Residue / Process Residue (TPA)	7.2	11000	NIL	11000	Sale to registered recycler /Disposed in SLF
15.	HGP Dust/HGP Cake (TPA)	7.2	7500	NIL	7500	Sale to registered recycler
16.	Filter and Filter material which contain organic compound (TPA)	-	100	NIL	100	Sale to registered recycler/disclosed to secure land fill/approved Incinerator
17.	Oil Soaked Jute/cotton waste/Used PPE's (TPA)	5.2	10.0	NIL	10.0	Sale to registered recycler/disclosed to secure land

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
						fill/approved incinerator
18.	MEE Salt (TPA)	33.2	5,000	NIL	5,000	Recovery of Glauber Salt/ Disposal in SLF
19.	Process Residues and wastes / Geothite Cake/ (TPA)	7.2	11471	NIL	11471	Captive SLF/Co processing/Sales to registered recyclers
20.	De Fluorination Cake (TPA)	7.2	NIL	2000	2000	Disposal in SLF
21.	ISF Dross (TPA)	7.2	NIL	10000	10000	Sale to registered recycler/disposed to secure land fill
22.	Lead Acid Battery Plates and other lead scarp /ashes/residues not covered under Battery Management and handling rules 2001 (TPA)	7.2	18000	NIL	18000	Recycling /reprocessing
23.	Zn Dross (TPA)	7.2	0	12000	12000	Recycling /reprocessing
Non Hazardous Waste						
24.	Ausmelt Slag (TPA)	Non Haz	26000	-	26000	Reuse in process
25.	Fly ash (TPA)	Non Haz	180312	276933	457245	100% in cement
26.	Bottom Ash (TPA)	Non Haz	80657	124772	205429	Cement & bricks manufacturing
27.	Gypsum (TPA) { FGD}	Non Haz	-	120000	120000	Utilization in Cement and other Industries.
28.	Slag (Fumer)	Non Haz	150000	NIL	150000	Utilization in Cement and other Industries
29.	Jarosite Cake (TPA) (Hydro Plant)	Non HAZ	306000	81000	387000 [81000 To be used in Fumer]	Utilization in Cement Manufacturing / Road / Rail embankment / Concrete construction / disposal in Lined Jarofix yard
30.	ISF Slag (TPA)	Non Haz	85000	55000	140000	Cement /highway /reuse in process

25.1.15 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers “Rajasthan Patrika” and “Jannayak” on 15 th June, 2022
Date of Public Consultation	20 th July, 2022 at 11:00 am
Venue	Govt. Senior Secondary School, Ajoliya ka khera, Chittorgarh (Raj.).
Presiding Officer	District Magistrate: Shri Arvind Kumar Poswal
Major issues raised	Issues related to Employment, Environment & Pollution, Green Belt Development, Socio-economic development related, water and land related issues.

Action plan as per MoEF&CC O.M. dated 30/09/2020:

Hindustan Zinc Ltd. has earmarked the budget for socio economic development plan including development of 5 model villages as Rs. 17.5 Crores. Out of which, Rs. 6.05 Crores has been allocated for implementation of the commitments made during Public Hearing and Rs. 11.46 Crores for Village Adoption program for the Ajoliya ka Khera, Biliya, Moonga ka Khera, Putholi and Nagri villages in next 3 years.

A) Plan for implementation of the commitments made during Public Hearing:

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1	<i>Skill Development</i>	Job oriented skills development training to unemployed youth	150 trainees/ operational villages	35	150 trainees/ operational villages	35	150 trainees/ operational villages	35	105
		Coaching to youths for government exams/services	350 trainees/ Covering 3 villages	15	50 trainees/ Covering 3 villages	15	50 trainees/ Covering 3 villages	15	45
		Capacity building of farmers to reduce input cost and enhance income/productivity	farmers/ covering villages	-	farmers/ covering villages	-	farmers/ covering villages	-	0
		Capacity Building and livelihood support to women	women/v illages	-	women/v illages	-	women/v illages	-	0
2	<i>Rural Infrastructure Development</i>	Multipurpose Community Hall	Bhavanipura	35	-	-	Anwalhead	35	70
		Solar Street Lights	50 lights	10	50 lights	10	50 lights	10	30
		Construction of CC roads	Ganesh Pura	100	Suwanika	80	Medikhera	50	230
		Creating Model Anganwadi	Bhvanipura	3	Medikhera	4			7
		Construction Toilets in Public Places	-	-	-	-	-	-	0
		Cremation area development	Bhavanipura	15	Suwanika	15	-	-	30

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Repairing of primary health centre/sub centre	-	0	-	0	-	0	0
3	Ground Water Conservation	Rooftop Rainwater harvesting System	-	-	Anwalhe da	5	-	-	5
4	Safe Drinking Water	Drinking water supply/Installation RO units	Anwalhe da	4			Suwaina	4	8
5	Education	Strengthening of school infrastructure to create model school	Bhavanipura	30			Suwania	30	60
6	Health	Health Camps							0
7	Afforestation	Plantation	400 trees with tree guards	5	400 trees with tree guards	5	400 trees with tree guards	5	15
Total				252		169		184	605

B) Proposed Action plan, Budget along with timeline for Village Adoption:

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1	<i>Skill Development</i>	Job oriented skills development training to unemployed youth	50 trainees/C overing 5 villages	25	50 trainees/C overing 5 villages	25	50 trainees/ Covering 5 villages	25	75
		Coaching to youths for government exams/services	50 trainees/C overing 5 villages	10	50 trainees/C overing 5 villages	10	50 trainees/ Covering 5 villages	10	30
		Capacity building of farmers to reduce input cost and enhance income/productivity	150 farmers/ covering 5 villages	15	150 farmers/c overing 5 villages	15	150 farmers/c overing 5 villages	15	45
		Capacity Building and livelihood support to women	30 women/ 5 villages	40	30 women/ 5 villages	40	30 women/ 5 villages	40	120
2	<i>Rural Infrastructure Development</i>	Multipurpose Community Hall	Ajolia ka kheda	35	Nagri	35	Biliya	35	105
		Solar Street Lights	50 lights	10	50	10	50	10	30

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Construction of CC roads	Ajoliya ka khera & Biliya	180	Moonga ka khera Nagri	130	Ajoliya ka khera	50	360
		Creating Model Anganwadi	Moonga Khera Biliya	8	Biliya Ajoliya ka Khera	9	Ajoliya ka Khera & Nagri	10	27
		Construction Toilets in Public Places	Ajoliya ka Khera	12					12
		Cremation area development	Ajoliya ka Khera & Putholi	30	Biliya	15	Ajoliya ka Khera	15	60
		Repairing of primary health centre/sub centre	Moonga ka khera / Putholi	10					10
3	Ground Water Conservation	Rooftop Rainwater harvesting System	Ajoliya ka Khera School	5	Biliya Nagri School	11	Ajoliya ka Khera Putholi School	12	28
4	Safe Drinking Water	Installation RO units School	Ajolia ka kheda School	3	Biliya School	3	Moonga ka kheda Putholi School	7	13
5	Education	Strengthening of school infrastructure to create model school	Moonga ka kheda	40	Biliya Nagri	70	Ajolia ka kheda	40	150
6	Health	Health Camps	5 camps	6	5 camps	6	5 camps	6	18
7	Afforestation	Plantation	1000 trees with tree guards	19	1000 trees with tree guards	21	1000 trees with tree guards	23	39
				448		400		298	1146

Model Village Development Plan:

Company is proposing to adopt the five revenue villages as a part of model village development plan namely Ajolia Ka Khera, Biliya, Moonga Ka Khera, Nagri and Putholi. Undertaking for adoption of 5 No. of Villages is submitted vide letter dated 22.03.2023. The objective of Model Village Development Plan is to develop the following identified villages in an integrated manner. This would include economic development, infrastructure development and other aspects of human development i.e., education, health, drinking water supply, etc., besides access to credit facilities through financial institutions.

25.1.16 The existing capital cost of the project was Rs. 429057 Lakhs. The capital cost for the proposed expansion project is Rs. 786 Crores & the capital cost for environmental protection measures is proposed as Rs. 120.05 Crores. The annual recurring cost towards the environmental protection measures for expansion is Rs.15.14 Crores/ annum. The employment generation from the expansion project is 360 people. The details of cost for environment protection measures is as follows:

S. No	Environment /Social Control Measure	Cost of EMP (IN LAKHS)					
		Existing		Proposed		Total	
		Capital	Recurring (Per Annum)	Capital	Recurring (Per Annum)	Capital	Recurring (Per Annum)
A.	Pollution Control Measures						
i.	Pollution Control at Pyro Plant	48.5	1.4	18	2.7	66.5	4.1
ii.	Pollution Control at CPP	135	0.19	44.2	5.37	179.2	5.56
iii.	Pollution Control at Hydro I & II	0.5	3.9	0.85	0.1250	1.35	4.025
iv.	Pollution Control at DG Sets at Pyro & Hydro	-	-	0.2	0.03	0.2	0.03
v.	Pollution Control at proposed Lead Refinery Plant	Nil	Nil	45	5.4	45	5.4
vi.	Pollution Control at proposed Minor Metal Recovery unit	Nil	Nil	10	1.5	10	1.5
vii.	Pollution Control at proposed RZO Unit	Nil	Nil	0.1	0.015	0.1	0.015
	Sub Total			118.35	15.14		
B.	Post Project Compliance Environment Monitoring	-	-	0.20	Nil	0.2	Nil
C.	Greenbelt Development	5	2.16	1.00	Nil	6	2.16
D.	Rain Water Harvesting Structures	-	-	0.50	Nil	0.5	Nil
	Sub Total			1.70			
	Grand Total	189	7.65	120.05	15.14	309.05	22.79

25.1.17 Existing greenbelt has already been developed in ~125.02 ha which is about ~37.21 % of the total project area 335.89 ha with total saplings of 1,34,800 Trees. The greenbelt density is less than 2500/ha and will ensure to maintain and enhance same by doing gap plantation and using technique like Miyawaki to achieve plantation density @2500/ha for proposed expansion. The proposed greenbelt development & plantation area will be developed in upcoming 3 years within the existing plant premises. A 30 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guideline. Local and native species will be planted with a density of 2500 trees per hectare. Total 1,79,450 numbers of trees will be planted and nurtured within the existing plant premises in 3 years. HZL has requested the Director, Arid Forest Research Institute, New Pali Road, Jodhpur

(Raj.) for the technical support for Greenbelt Enhancement at Chanderiya Lead Zinc Smelter Chittorgarh, Unit of Hindustan Zinc Limited vide letter dated 28.01.2023

25.1.18 A Show Cause Notice was issued to the M/s. Hindustan Zinc Ltd. by MOEFCC, New Delhi vide letter J-11011/279/2006-IA.II (I) dated 06/04/2021 under Section 5 of Environment (Protection) Act, 1986 for violation of provisions of under EIA Notification, 2006. Reply of the same was submitted to MOEFCC, New Delhi vide letter HZL/CLZS/ENV/38/2021-22 dated 19/04/2021. After detailed deliberation as per the personal hearing held on 05/08/2021, the Show Cause Notice has been withdrawn by MOEFCC, New Delhi vide letter dated 31/08/2021.

M/s. Hindustan Zinc Ltd. further reported about an accident that took place on 12th August 2022 in the plant premises, when the Sulphuric acid tank ST-02 with a capacity of 5000 Mt at CLZS, Hydro 2 unit suddenly collapsed resulting in acid gushing out of the tank and affecting people who were nearby and causing large scale surrounding property damage as well. There was heavy rainfall prior to and during that period. On the basis of monitoring conducted by the Regional Office, MoEF&CC on 27.07.2022 and subsequent submission of its report vide letter dated 27.08.2022 to the Ministry, MoEF&CC observed the following non-compliance, “ Contingency & disaster plans has not been adopted properly by PP as there was an accident at the premises involving multiple casualties (Specific condition 16 of EC dated 03.06.1983 and General Condition of zEC dated 14.10.2020.” In view of the same, Ministry issued a letter to M/s. Hindustan Zinc Ltd. on 07.10.2022 seeking clarification for non-compliances, ATR and action plan on non complied conditions to which PP submitted the pointwise reply to MoEF&CC, New Delhi on 04.11.2022.

Certified Compliance report from Regional office, MoEFCC

25.1.19 The Status of compliance of earlier EC was obtained from Regional Office, MoEFCC Jaipur vide letter no. IV/ENV/R/IND-29/285/04, dated 27.08.2022 followed by letter issued from MOEFCC, New Delhi vide no. IA-J-11014/96/2022 dated 7.10.2022 w.r.t. Non Compliances observed in the name of M/s. Hindustan Zinc Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, New Delhi vide letter no. HZL/CLZS/ENV/38/2022-23 dated 04.11.2022. MoEF&CC (RO), evaluated the same and closure report from the IRO Office, MoEFCC Jaipur is submitted vide letter dated 15.02.2023. The review of IRO/reponse of PP is as follows:

S. No.	Non-compliances details	Observation of RO (abridged) Dated 27.08.2022	Condition no.			Response by PP	Re-assessment by RO dated 15.02.2023
			EC date	Specific	General		
1.	Contingency & disaster plans Should be drafted for adoption.	It was appraised by the unit representative that Disaster management plan is being	03.06.1983	16	-	No noncompliance against any of the condition stipulated in referred EC. The plans reviewed and updated time to	On the basis internal investigation report pertaining to the accident and

S. No.	Non-compliances details	Observation of RO (abridged) Dated 27.08.2022	Condition no.			Response by PP	Re-assessment by RO dated 15.02.2023
			EC date	Specific	General		
		updated suitably in consultation with Inspector of Factories & Boilers, Jaipur, for the entire location. Site level ERCP was also available at site. However, it is noteworthy that an accident has taken place just after the inspection which involves multiple casualties and enquiry of the same is being done by the State Factories and Boiler Department.				time and submit to concern authority. CLZS-HZL has comprehensive safety rules and regulations in place and. diligently followed at our sites to maintain the safety of and safe working for the employees & contract workers. Robust contingency and disaster plans are in place at CLZS-HZL, and they are adopted in letter and spirit and strictly adhered to at the time of any contingency & disaster. Apart from this, undertake routine mock drills at site, in accordance with the internal standards and in association with the district administration. Further we are in process of undertaking a detailed structural safety study, through Bureau Veritas. This will assist us, in revising our contingency and disaster plan, if need be.	clarification submitted by unit, this condition may be considered as Complied if deemed appropriate by the EAC.
2.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	It was appraised by the unit representative that Disaster management plan is being updated suitably in consultation with Inspector of Factories & Boilers,	14.10.2020	-	VIII (i)	the district administration. Further we are in process of undertaking a detailed structural safety study, through Bureau Veritas. This will assist us, in revising our contingency and disaster plan, if need be.	On the basis internal investigation report pertaining to the accident and clarification submitted by unit, this condition may be considered as Complied if

S. No.	Non-compliances details	Observation of RO (abridged) Dated 27.08.2022	Condition no.			Response by PP	Re-assessment by RO dated 15.02.2023
			EC date	Specific	General		
		Jaipur, for the entire location. Site level ERCP was also available at site. However, it is noteworthy that an accident has taken place just after the inspection which involves multiple casualties and enquiry of the same is being done by the State Factories and Boiler Department.					deemed appropriate by the EAC.
3.	Green belt of adequate width and density in and around the captive power plant shall be developed as per Central pollution Control Board guidelines in 61.12 ha of area in addition to 106ha of existing area already brought	The unit has done decent efforts for plantation and a GIS based study has also been done to ascertain the exact area under plantation. As per the report total area under plantation is more than 30 %.	03.08.2005	-	viii	The Green Cover study report conducted by State Remote Sensing Application Center reflecting Green Belt development of approx. 37% of 335.89 Ha. In the Existing CLZS Unit and 55.20% of 101.45 Ha in the Acquired Land /Proposed Fertilizer Unit for compliances of Green Belt development.	On the basis documents submitted by unit, this condition may be considered as Complied.

S. No.	Non-compliances details	Observation of RO (abridged) Dated 27.08.2022	Condition no.			Response by PP	Re-assessment by RO dated 15.02.2023
			EC date	Specific	General		
	under green belt. Around the periphery of plant and township canopy based green belt should be developed.						

25.1.20 The proposal was initially considered in the 20th meeting of the EAC for Industry-I sector held on 29th December, 2022 wherein the Committee deferred the proposal on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 29th December, 2022)

25.1.21 The Committee noted the following:

1. It was brought to the notice of the Committee about a Show-cause notice (SCN) recently issued by the Ministry during 2022 on account of an accident that took place at the project site. The EAC observed that there is not much reference about the accident in the EIA/EMP report. During the appraisal, on the observation of the EAC, the PP discussed about the accident, but has not given anything in detail in the Report. The EAC is of the view that PP/Consultant shall provide the complete details of the accident and also shall carry out root cause analysis and further present the case along-with the SCN and the reply submitted by the project proponent to the Ministry.
2. The EAC also observed that the area marked for greenbelt in the earlier EC has been used for installation of Fertiliser Plant. PP is required to provide justification in this regard. The green belt density is also very less and not as per 2500 tress/ha.
3. Further, during the meeting PP explained that despite repeated efforts, they have not been able to achieve desired greenbelt density. The PP has obtained many ECs but still the density of trees has not achieved. In this regard, the Committee advised that they shall approach reputed institutions specialised in such activities such as FRI and prepare a plan for effective implementation of greenbelt development.
4. The EAC noted that the Berach River is flowing adjacent to the project site in the East direction. Taking into consideration Ministry's O.M. vide F. No. 22-39/2020-IA.III dated 14.02.2022 pertaining to guidelines for sitting industries which are in close proximity with the river, PP shall submit the NOC from State Irrigation Department in compliance to the said O.M.
5. Putholi Nala is passing through the plant site and Berach River is flowing adjacent to the project site in the East direction. Also, Gambhir Nadi (~4.0 km, S), Nagdi ka Nala (~8.5

km, NNE) and Canal (~8 km, WNW) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

6. EAC noted that the Existing Water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The PP claimed that the water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water). There was earlier deliberation also to use the treated STP water of Municipal Corporation Udaipur/Chittorgarh, however PP has only signed the Agreement signed between Municipal Corporation Udaipur, Urban Improvement Trust, Udaipur and Hindustan Zinc Ltd. on 09/05/2021 for supply of treated water from Proposed STP (20 MLD) at Udaipur. The EAC is of the view that PP shall complete all the tasks w.r.t. usage of STP treated water and accordingly layout the pipeline connection and other related activities for supply of treated water for this expansion project, as the usage of treated water is environmentally and sustainable best practice.
7. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO is of the view that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan and shall obtain closure report from IRO, MoEF&CC along with compliances of green belt development.
8. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that maximum values of PM₁₀ and PM_{2.5} are found to be on a higher side. Also the incremental GLC for PM₁₀ and PM_{2.5} due to the instant project infers that the PM values will be beyond the NAAQ standards. In this regard, the EAC is of the opinion PP shall submit mineral composition of PM₁₀ and also submit the mitigation measures that will be undertaken to minimise the same.
9. The EAC is of the opinion that PP shall under leaching and toxicity study of the by-products in the proposed project, shall cover their impacts and the mitigation measures.
10. The EAC noted that Six schedule - I species i.e., *Panthera pardus* (Leopard), *Prionailurus rubiginosus* (Rusty Spotted Cat), *Gyps bengalensis* (White-rumped Vulture), *Falco jugger* (Laggar Falcon), *Pavo cristatus* (Indian Peafowl), *Varanus bengalensis* (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife conservation plan for the Schedule I species has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The approval of the WLCP is under process with the State Department. The EAC is of the view that the instant Unit is very old and PP has only submitted the conservation plan to the Wildlife Department in November 2022 and operating the Unit without its approval. EAC advised the PP to implement the conservation plan immediately and submit the copy of approval to the EAC/Ministry.

11. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during the public hearing. EAC is of the view that the PP has made a vague plan.
12. The EAC deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.
13. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.
14. The EAC also raised concern on the housekeeping issues at the project site and suggested to improve the housekeeping of the plant area. PP shall submit the housekeeping plan along with the photographs in this regard.
15. The PP needs to submit the undertaking that they have not done any violation under the provisions of the EIA Notification, 2006/Air Act/Water Act and never exceeded the production capacity without requisite clearances under the provisions of EIA Notification, 2006/ Air Act, Water Act etc. for the instant project.
16. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing.
17. The nearest habitation to plant are Putholi (~0.5 km in SW), Ajoliya Ka Khera (~ 1 km in West) and Biliya (~ Adjacent in North) from plant site. There are approx. 75 villages and 1 city in 10 km radius study area. Project Proponent shall take submit appropriate environmental safeguard measures to minimise the impact on the habitation of the locals.
18. The water requirement of 38570 KLD (existing) is proposed to be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water) and 500 KLD additional water for the Minor Metal Unit is proposed to be sourced from RO permeate water from ETP. The EAC is of the view that PP shall explore the possibility to fulfil its water requirement from STP/ETP.
19. This is expansion project. Therefore, it is recommended to monitor most toxic metals such as Pb, Cd & Hg in blood and urine samples for all the employees. As Cd affects kidney function. It is required to monitor the Kidney function test for the employees. The airborne Pb and Cd levels should be monitored in all the process plants and to be compared with Permissible exposure limits (PEL) as per the Indian Factories Act.
20. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

Recommendations of the Committee (EAC during 29th December, 2022)

25.1.22 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 25.1.21 above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

25.1.23 The proponent submitted the ADS reply vide letter dated 25.02.2023 uploaded on PARIVESH on 25.02.2023. Point-wise reply of ADS is given as below:

S. No.	ADS Point	Reply submitted by the PP								
1.	<p>It was brought to the notice of the Committee about a Show-cause notice (SCN) recently issued by the Ministry during 2022 on account of an accident that took place at the project site. The EAC observed that there is not much reference about the accident in the EIA/EMP report. During the appraisal, on the observation of the EAC, the PP discussed about the accident, but has not given anything in detail in the Report.</p> <p>The EAC is of the view that PP/Consultant shall provide the complete details of the accident and also shall carry out root cause analysis and further present the case along-with the SCN and the reply submitted by the project proponent to the Ministry.</p>	<p>The detail Incident report along with Root cause Analysis carried out by Hindustan Zinc Ltd. and recommendation by Investigation committee and status as on date is submitted.</p> <p>Point wise reply of the letter issued by MoEF&CC (IA Division), New Delhi to submit clarification, ATR and action plan on Partial noncompliance of 2 EC conditions dated 07.10.2022 has been submitted to MoEF&CC, New Delhi on 04.11.2022. Copy of MoEF&CC Letter issued along with reply submitted is also submitted by Project proponent.</p>								
2.	<p>The EAC also observed that the area marked for greenbelt in the earlier EC has been used for installation of Fertilizer Plant. PP is required to provide justification in this regard.</p> <p>The green belt density is also very less and not as per 2500 trees/ha.</p>	<p>HZL has two separate land parcels: the existing Chanderiya Lead Zinc Smelter at 335.89 hectares and the proposed Fertilizer Plant at 101.45 hectares. As per previous environmental clearances and project applications, more than 33% of the land is dedicated to green belt cover on both parcels individually.</p> <p>HZL has not utilized the greenbelt area from the previous environmental clearance for the fertilizer plant, as these are two separate land parcels. Green belt report by SRSAC is submitted.</p> <p>Details of same are given under here as:</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>Total area [Ha.]</th> <th>Total area of green belt [Ha.]</th> <th>Green Belt [%]</th> </tr> </thead> <tbody> <tr> <td>Existing Plant (As per previous ECs)</td> <td>335.89</td> <td>124.98</td> <td>37.21</td> </tr> </tbody> </table>	Particulars	Total area [Ha.]	Total area of green belt [Ha.]	Green Belt [%]	Existing Plant (As per previous ECs)	335.89	124.98	37.21
Particulars	Total area [Ha.]	Total area of green belt [Ha.]	Green Belt [%]							
Existing Plant (As per previous ECs)	335.89	124.98	37.21							

S. No.	ADS Point	Reply submitted by the PP			
		Proposed Fertilizer Plant	101.45	56.00	55.20
		<p>As per Condition 12(i) of proposed fertilizer EC vide letter F.No. J-11011/350/2016-IA.II (I) dated 05.01.2021, it was directed by MOEF&CC that the Project Proponent shall commence the project activities only after obtaining the necessary permission/approval from the State Government for the conversion of land to industrial purpose.</p> <p>HZL has already shared with MOEF&CC that greenbelt density is less than 2500/ha and will ensure to maintain and enhance same by doing gap plantation and using technique like Miyawaki to achieve plantation density @2500/ha. Additionally, we are in process to prepare a plan for effective implementation of greenbelt development at CLZS unit with AFRI, Jodhpur.</p> <p>HZL has requested the Director, Arid Forest Research Institute, New Pali Road, Jodhpur (Raj.) for the technical support for Greenbelt Enhancement at Chanderiya Lead Zinc Smelter Chittorgarh, Unit of Hindustan Zinc Limited vide letter dated 28.01.2023. Copy of the letter is submitted.</p>			
3.	Further, during the meeting PP explained that despite repeated efforts, they have not been able to achieve desired greenbelt density. The PP has obtained many ECs but still the density of tress has not achieved. In this regard, the Committee advised that they shall approach reputed institutions specialized in such activities such as FRI and prepare a plan for effective implementation of greenbelt development.	<p>As already shared with MOEF&CC that greenbelt density is less and PP will ensure to maintain and enhance same by doing gap plantation and using technique like Miyawaki to achieve plantation density @2500/ha. HZL is also working with The Energy and Resources Institute (TERI) and using its patented mycorrhiza technology for development of green area on Jarofix Waste dump as Pilot Project. Green belt development action plan is submitted.</p> <p>As directed by MOEF&CC, HZL has approached Arid Forest Research Institute, Jodhpur [Indian Council of Forestry Research and Education (An Autonomous Body of Ministry of Environment, Forests and Climate Change, Govt. of India) and as per letter enclosed by AFRI, Sr. Technical Officer Forest Ecology & Climate Change Division, Dr Ganga Ram Choudhary Visited CLZS unit and collected soil samples of site and conducted preliminary survey of existing plant species while Detail Proposal will now be submitted by AFRI to support HZL and prepare a plan on effective implementation of greenbelt development at CLZS Unit . Copy of the Letter is submitted.</p>			
4.	The EAC noted that the Berach River is flowing adjacent to the project site	Request was submitted to Water resource Department Chittorgarh to issue NOC w.r.t HFL of nearest River			

S. No.	ADS Point	Reply submitted by the PP
	<p>in the East direction. Taking into consideration Ministry's O.M. vide F. No. 22-39/2020-IA.III dated 14.02.2022 pertaining to guidelines for sitting industries which are in close proximity with the river, PP shall submit the NOC from State Irrigation Department in compliance to the said O.M</p>	<p>/nallah Adjacent to CLZS Complex in compliance to the Ministry's O.M. vide F. No. 22-39/2020-IA.III dated 14.02.2022. A NOC letter has been issued by Executive Engineer Water Resource Department vide letter No. 6872 dated 16.01.2023 also stating that Berach river passes in the east direction approximately 0.5 km from the Chanderiya Lead Zinc Smelter, whose water has not reached the Chanderiya Lead Zinc Smelter complex in last 25 years.</p>
<p>5.</p>	<p>Putholi Nala is passing through the plant site and Berach River is flowing adjacent to the project site in the East direction. Also, Gambhir Nadi (~4.0 km, S), Nagdi ka Nala (~8.5 km, NNE) and Canal (~8 km, WNW) are flowing within 10 Km. radius of the plant site.</p> <p>A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.</p>	<p>Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures has been prepared and submitted.</p> <p>The conservation measures adopted by plant for conservation of nallah and river are as follows:</p> <ol style="list-style-type: none"> 1. No discharge from the project site is being done in to the Putholi nallah and Berach river and the same will be maintained in the future as well, in order to protect the natural water quality of these water bodies. 2. Storm water management with a capacity of storm water pond as 345000 cum is available at site to avoid run off discharge into the nearby water bodies during rainy season. 3. 10 m to 15 m wide greenbelt has already been developed on each side of the banks of Putholi nallah and Berach river, which will be densed by gap plantation to achieve plantation density of 2500 trees/ha. 4. There will be no activities within the plant site which will directly or indirectly cause the diversions of the Putholi nallah from its natural course. 5. An overpass has been made over Putholi nallah for the movement of men and machinery. The same will suffice for the proposed expansion as well. 6.
<p>7.</p>	<p>EAC noted that the Existing Water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The PP claimed that the</p>	<p>As per last EC granted on 14.10.2020 for CLZS Unit HZL has initiated with an agreement with Nagar Parishad Chittorgarh to utilize available STP water for our existing CLZS Unit. 3 MLD [3000 KLD] agreement was done between CLZS and Nagar parishad Chittorgarh. Average 2390 KLD STP Water has been consumed by CLZS Unit since Jan 2021 until July 2022 as per the availability. The same has been submitted.</p>

S. No.	ADS Point	Reply submitted by the PP
	<p>water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water). There was earlier deliberation also to use the treated STP water of Municipal Corporation Udaipur/Chittorgarh, however PP has only signed the Agreement signed between Municipal Corporation Udaipur, Urban Improvement Trust, Udaipur and Hindustan Zinc Ltd. on 09/05/2021 for supply of treated water from Proposed STP (20 MLD) at Udaipur.</p> <p>The EAC is of the view that PP shall complete all the tasks w.r.t. usage of STP treated water and accordingly layout the pipeline connection and other related activities for supply of treated water for this expansion project, as the usage of treated water is environmentally and sustainable best practice.</p>	<p>CLZS has already developed all required resources like 9 kms stretch pipeline from STP to plant, a pond at site, pumping system and internal pipeline and pumping station to Utilize this Chittorgarh STP treated water in plant operations.</p> <p>As construction and linkage of City sewerage line project is under progress for another 5 MLD, once treated water availability increases, we will further approach Nagar Parishad to increase approval and substitute Sewage treated water from Chittorgarh STP from 3 MLD to 8 MLD as per availability.</p> <p>HZL in its sustainability goals, 2025 have committed to achieve 5x Water positive company & achievement of 25% reduction in overall freshwater consumption and at Chanderiya Lead Zinc Smelter we have continuously prioritized and emphasized to work towards improving our Environment performance.</p>
8.	<p>The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO is of the view that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan and shall obtain closure report from IRO, MoEF&CC along with compliances of green belt development.</p>	<p>The Closure Report of the Partial Complied Condition along with compliances of green belt development has been obtained from IRO, MoEF&CC vide letter no. IV/ENV/R/IND-29/285/04 dated 15.02.2023. Copy of the same is submitted.</p>
9.	<p>The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that maximum values of PM10 and PM2.5 are found to be on a higher side. Also, the incremental GLC for PM10 and PM2.5 due to the instant project infers that the PM values will be beyond the NAAQ standards. In this regard, the EAC is of the opinion PP shall submit mineral composition of PM10 and also submit the mitigation measures that will be undertaken to minimise the same.</p>	<p>The baseline data has been collected during Post Monsoon Season (Oct. to Dec.,2020) at 9 locations. Out of which the values of PM₁₀ and PM_{2.5} at 5 locations were found to be beyond 80 µg/m³ and 40 µg/m³, respectively. The reason for high values of PM_{2.5} and PM₁₀ along with their mitigation measure to minimize the same is submitted along with Mineral Composition of PM₁₀.</p>

S. No.	ADS Point	Reply submitted by the PP
10.	The EAC is of the opinion that PP shall under leaching and toxicity study of the byproducts in the proposed project, shall cover their impacts and the mitigation measures.	<p>Leaching and toxicity test of the waste is been done on regular basis by internal Lab at CLZS while for the byproducts test is carried out and Report is submitted, <i>while quality test is done on regular basis by internal QA lab.</i></p> <p>These byproducts are sold to all reputed consumers as per requirements and demand. HZL Major consumers are;</p> <ol style="list-style-type: none"> 1. Fertilizer Industry like Coromandel, 2. Battery Industry e.g., Amara Raja & Exide, 3. Some Internal Consumption at HZL Mines, 4. HUL etc. <p>Uses of by products are as mentioned as below.</p> <ul style="list-style-type: none"> ✓ Sulphuric Acid – Fertilizers & Other Chemical Manufacturers ✓ Silver - Alloys, Ornaments ✓ Copper, Copper Cement & its compounds - Alloys, Semiconductors ✓ Cadmium & its compounds – Alloys, batteries, alloys, coatings (electroplating), solar cells, plastic stabilizers, and pigments. Cadmium is also used in nuclear reactors where it acts as a neutron absorber. ✓ Copper Sulphate & Zinc Sulphate – Internal HZL Smelters and Mines etc. ✓ <i>Antimony Slag-Alloys & for recovery of pure antimony and minor metals.</i> ✓ <i>Calomel- Pharmaceutical Ingredients, Specialty Dyes, Fine & Specialty Chemicals etc.</i> ✓ <i>Lead Oxide & low grade lead con.- Recovery of Minor metal .</i> <p>Mitigation measures implemented at site for the byproducts are given below.</p> <ul style="list-style-type: none"> • To prevent from any land or ground contamination due to the heavy metal content, all solid byproducts are stored in separate, concrete-lined, and covered storage areas. • Liquids such as sulfuric acid, copper sulfate, and zinc sulfate solutions are stored in tanks. • Liquid byproducts like Sulfuric are stored in MS tanks while other are stored in Fiberglass reinforced plastic tanks (FRP) double brick refractory lined. • MSDS are deployed at all areas of storage yards. • Handling of all byproducts follows standard operating procedures at the site, requiring the use of mandatory personal protective equipment.

S. No.	ADS Point	Reply submitted by the PP
		<ul style="list-style-type: none"> • Transportation is conducted using dedicated covered trucks and tankers. • Minimal environmental impacts have been envisaged from the byproducts generated during the plant's processes at the site. • The same practice will be adopted for the proposed expansion project as well.
11.	<p>The EAC noted that Six schedule - I species i.e., Panthera pardus (Leopard), Prionailurus rubiginosus (Rusty Spotted Cat), Gyps bengalensis (White-rumped Vulture), Falco jugger (Laggar Falcon), Pavo cristatus (Indian Peafowl), Varanus bengalensis (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife conservation plan for the Schedule I species has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The approval of the WLCP is under process with the State Department. The EAC is of the view that the instant Unit is very old and PP has only submitted the conservation plan to the Wildlife Department in November 2022 and operating the Unit without its approval. EAC advised the PP to implement the conservation plan immediately and submit the copy of approval to the EAC/Ministry.</p>	<p>Wildlife conservation plan for the Schedule I species has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The same has been forwarded to Chief Conservator of Forest, Udaipur vide Letter No. F()FCA/DFO/2022-23/1100 dated 10.02.2023 and the same is submitted. The approval of the WLCP is under process with the State Department.</p> <p>As per previous EC's no Schedule 1 Species were identified in the 10 kms radius of the Unit and therefore WCP was not implemented but as per existing authenticated list 6 schedule 1 species were identified and accordingly WCP was prepared by Reputed Experts from Terracon Ecotech India's first ecology-based environmental consultancy and submitted for final Approvals and authentication which is under process.</p> <p>HZL have rolled out its First Biodiversity Policy way back in 2012 and has been continuously working on its aim to Protect and enhance biodiversity throughout the life cycle by adopting a mitigation hierarchy framework- avoid, minimize, reclaim and offset the negative impacts on biodiversity at our operations, securing a minimum of No Net Loss (NNL) of biodiversity. In this journey we are working with International Union for Conservation of Nature (IUCN) at all our HZL sites.</p>
12.	<p>The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during</p>	<p>Revised Action Plan of oral and written representations to implement the issues raised during Public Hearing are submitted.</p>

S. No.	ADS Point	Reply submitted by the PP
	the public hearing. EAC is of the view that the PP has made a vague plan.	
13.	The EAC deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.	Details of the PH issues raised during the earlier EC along with the status of implementation of the action plan of the commitment made during earlier conducted public hearing is submitted.
14.	The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.	Detailed Village Adoption program has been prepared for the villages Ajoliya ka Kheda, Biliya, Moonga ka Khera. Copy of the same is submitted. Undertaking for adoption of 3 No. of Villages Ajoliya Ka Khera, Biliya, Moonga Ka Khera is submitted.
15.	The EAC also raised concern on the housekeeping issues at the project site and suggested to improve the housekeeping of the plant area. PP shall submit the housekeeping plan along with the photographs in this regard.	Housekeeping plan of the plant area along with the photographs is submitted.
16.	The PP needs to submit the undertaking that they have not done any violation under the provisions of the EIA Notification, 2006/Air Act/Water Act and never exceeded the production capacity without requisite clearances under the provisions of EIA Notification, 2006/ Air Act, Water Act etc. for the instant project.	Undertaking w.r.t violation under the provisions of the EIA Notification, 2006/Air Act/Water Act and never exceeded the production capacity without requisite clearances under the provisions of EIA Notification, 2006/ Air Act, Water Act has been prepared and submitted.
17.	Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing.	The contour map of project site along with details of storm water and drainage system is submitted.
18.	The nearest habitation to plant are Putholi (~0.5 km in SW), Ajoliya Ka Khera (~ 1 km in West) and Biliya (~ Adjacent in North) from plant site. There are approx. 75 villages and 1 city in 10 km radius study area. Project Proponent shall take submit appropriate environmental safeguard measures to minimize the impact on the habitation of the locals.	Environmental safeguard measures to minimize the impact on the nearest habitation from the plant site are submitted.
19.	The water requirement of 38570 KLD (existing) is proposed to be	Details of usage of STP treated water from Chittorgarh STP to fulfill water requirements per availability has

S. No.	ADS Point	Reply submitted by the PP
	sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water) and 500 KLD additional water for the Minor Metal Unit is proposed to be sourced from RO permeate water from ETP. The EAC is of the view that PP shall explore the possibility to fulfil its water requirement from STP/ETP.	been shared in reply to point no. 6. At CLZS, PP is continuously working towards aim of reduction of overall freshwater consumption.
20.	This is expansion project. Therefore, it is recommended to monitor most toxic metals such as Pb, Cd & Hg in blood and urine samples for all the employees. As Cd affects kidney function. It is required to monitor the Kidney function test for the employees. The airborne Pb and Cd levels should be monitored in all the process plants and to be compared with Permissible exposure limits (PEL) as per the Indian Factories Act.	Detail monitoring plan for monitoring toxic metals in blood, urine & Air along with kidney function is submitted. Same is currently in practice at CLZS Unit. However, we are focusing on Training and awareness of all concern stakeholders, providing correct PPEs as per job and area of work, Implementation of a system which aims for reducing workplace exposure to the workforce, maintain similar group (SEG), and various projects to reduce fugitive emissions and ensure good housekeeping at site. Details of same has been submitted with point no. 14.
21.	In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.	Agreed and noted. The Application for EC has been revised and resubmitted accordingly.

25.1.24 Based on the above submission of PP, the proposal was reconsidered during 25th meeting of the EAC for Industry-I sector held on 21st-23rd March, 2023. The deliberations and recommendations of EAC are as follows:

Written representations:

25.1.25 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 22.03.2023 submitted the following information:

S. No.	Point raised	Response from Project Proponent
1.	Updated brief writeup should be submitted including unit wise as well as product wise project proposal. However, the EC letter will contain the unit wise project proposal as given in the ToR letter issued by MOEFCC, New Delhi dated 27.09.2021.	The updated brief writeup including unit wise as well as product wise project proposal has been submitted. Agreed to.
2.	Elevation profile of the area is different in ToR and Final EIA/EMP report. The correct	The elevation range of the project area is 390m AMSL to 400m AMSL. The same has been given in Final EIA/EMP report in section 3 of 3.6.3 of

S. No.	Point raised	Response from Project Proponent
	Elevation profile should be submitted to committee.	chapter 3-page no. 193 as well as the brief writeup submitted.
3.	MoEF&CC has received the two complaints regarding the project dated 20.01.2023 & 19.03.2023. PP is to submit the pointwise reply of the same.	The pointwise reply of the complaints received on 20.01.2023 & 19.03.2023, has been prepared and submitted as below:
<p>Hindustan Zinc Limited Chanderiya Plant expansion regarding [Proposal No. IA/WB/IND1/401516/2022; FileNo.J-11011/64/2020-IA-II(I)] In the application made by the said company, many information have been wrong and misleading. In the application made by the said company, many things have been wrong and misleading. Out of which mainly notices were issued from the Rajasthan Pollution Control Board, which have not been followed.</p> <p>1. Noncompliance of provisions of water act 1974 and air act 1981 reference no. RPCB/ROCHITTORGARH/2020-21/585-587 DATE7/8/2020.</p> <p>Submission of PP: Reply already been submitted to SPCB vide letter No. HZL/CLZS/ENV/2020/38 Dated 11.08.2020, After our submission the same has been inspected by RSPCB officials on 08/10/2020.</p> <p>2. Notice for intended action for excessive release of sulphat di-oxide (SO₂) notice no. RPCB/ROCHITTORGARH/2020-21/1969-1972 DATE-30/12/2020.</p> <ul style="list-style-type: none"> • MOEAF/E/2020/01209 water pollution. • MOEAF/E/2020/01547 Violation of the water pollution act 1974 and environment clearance condition. • MOEAF/E/2022/00145 Show cause notice section 5 of the environment (protection) act,1986 for violation of provisions under EIA notification 2006. <p>Submission of PP: Reply already been submitted to SPCB for above referred points vide letter no. HZL/CLZS/2020-21/38 dated 07.01.2021. All relevant documents submitted about the letter as there was not such any incidence.</p> <p>3. COURT CASE PENDING</p> <p>a. Registration number 3/2022 DJADJ CHITTORGARH kanhiya lal gadri vs hindustan zinc limited next hearing 25th January 2023.</p> <p>Submission of PP: Disposed Off.</p> <p>b. Registration number 14/2022 DJADJ CHITTORGARH kanhiya lal gadri vs hindustan zinc limited. – Disposed Off.</p> <p>Submission of PP: Disposed Off. Court Orders enclosed herewith for refrence.</p> <p>4. LAND USE & GREEN BELT</p> <p>a. The company has not got the commercial use of the land converted, since years it is operated on agricultural land . Hindustan Zinc has constructed a fumer plant by removing the green belt installed earlier without the permission of any competent authority. Hindustan Zinc is operated on pasture(common, community) land, Chem Color India, a unit of the company, has been declared illegal encroachment construction and operation by Tehsildar. Land allotment conditions have also been violated. According to Zinc, green belt has been developed on a total of 110.0 hectares only. In reality, green belt has been found on only 75.0 hectares of</p>		

S. No.	Point raised	Response from Project Proponent
	<p>land. Which Tehsildar Sir Gangrar's inquiry committee found in the investigation. Hindustan Zinc has less green belt Expansion in Hydro Plant by adding 1 Induction Furnace Will be constructed by removing the green belt developed over the years There is no land left in the plant.</p> <p>Submission of PP: Greenbelt has already been covered in 37.21% of the total plant area . GIS Based study has been done by State Remote Sensing Application Center (SRSAC), Jodhpur. Details already submitted with ADS Reply.</p> <p>b. Hindustan Zinc has completed construction & commissioning stage RZO PLANT without environmental clearance.</p> <p>Submission of PP: Zinc Oxide is an output of fuming furnace for which Fumer EC is already obtained and people have misunderstood it with the current EC application the proposed plant will treat RZO of different specs.</p>	
<p>5. BIG ACCIDENTS IN PLANT</p>	<p>a. Acid tank exploded in Hydro 2 plant on 12 August 2022 in this accident A man was burnt to death and nine others were injured on Friday when an acid tank exploded due to lightning at Hindustan Zinc in Rajasthan's Chittorgarh district, police said. District Collector Poswal said that the talk of lightning has not been confirmed. The main reason for this accident was poor construction of the tank, weak and after filling more than capacity, welding work was being done to stop the leakage by creating pressure on the laborers in case of leakage, due to which the tank burst and all the acids failed in the plant.</p> <p>Submission of PP: Detailed incident report and RCA is been submitted with ADS reply.</p> <p>b. 27 November 2022 big fire accident in hydro1 plant and hydrogen gas leak.</p> <p>Submission of PP: It was an incident which was controlled immediately.</p> <p>c. 25 December 2020 so2 gas leakage hydro plant destroy farmer crops and affected 250-300 person in near putholi village.</p> <p>Submission of PP: This was a politically motivated incident and we dealt it accordingly.</p> <p>d. 15 july 2020 fumer plant blast furnace and destroy fumer furness.</p> <p>Submission of PP: This has been clearly reported in all forums and there was no injury or casualty.</p>	
<p>6. Environment approval to increase production capacity should be issued only then</p>	<p>a. The company is telling to take water from the Ghosunda dam, when there is less rain and less water in the dam, the company uses illegal ground water exploitation, water is continuously stolen from the Bedach river flowing behind the unit. The plant has become very old, due to which the level of air pollution has increased, the effect of which can be seen in the surrounding farms and villages. Environmental clearance should not be issued without resolving the issues raised during the public hearing.-</p>	

S. No.	Point raised	Response from Project Proponent
	<p>Submission of PP: Already HZL have committed not to use ground water and same is complied with.</p> <p>b. The company should get the approval of change of commercial land use of agriculture land and pasture land, the outstanding amount should be given to the farmers</p> <p>Submission of PP:This is with respect to Fertilizer and as per commitment no work will be done on that land parcel without conversion. Not applicable for this Project .</p> <p>c. Prohibition on cutting of green trees located in the south-west direction of Putholi village.</p> <ul style="list-style-type: none"> • An independent committee should be constituted for ground investigation, so that the reality can be known. • Detailed investigation should be done by National Environmental Engineering Research Institute before environmental clearance. <p>Submission of PP: No cutting of trees is been done by HZL .</p>	
4.	Instead of 3 Villages, PP should adopt 5 nearby villages for development as model villages and the revised plan for the same should be submitted.	Detailed Village Adoption program has been prepared for the 5 villages Ajoliya ka Kheda, Biliya, Moonga ka Khera, Putholi and Nagri. Undertaking for adoption of 5 No. of Villages Ajoliya Ka Khera, Biliya, Moonga Ka Khera Putholi and Nagri is submitted vide letter dated 22.02.2023 and the same is updated at para 25.1.15 above. As per OM dated 30 th September, 2020 and 20 th October, 2020, Hindustan Zinc Ltd. has revised the budget for socio economic development plan including development of 5 model villages as Rs. 17.5 Crores. Out of which, Rs. 6.05 Crores has been allocated for implementation of the commitments made during Public Hearing and Rs. 11.46 Crores for Village Adoption program for the Ajoliya ka Khera, Biliya, Moonga ka Khera, Putholi and Nagri villages in next 3 years. Details are submitted and updated at para 25.1.15 above. Revised presentation slides w.r.t. CER is submitted.
5.	PP should submit the details of mineral composition study	The Mineral Composition Report of PM ₁₀ is submitted.
6.	PP should submit the mitigation measures being adopted to reduce Mercury emissions from the plant operation.	Details of the mitigation measures being adopted to reduce Mercury emissions from the plant operation are submitted.

Deliberations by the Committee

25.1.26 The Committee noted the following:

1. The instant proposal is for expansion within the existing Chanderiya Lead Zinc Smelter Complex [Expansion in Hydro Smelter Unit by adding 1 Induction Furnace, 1 Slab Casting Line & Integration of RZO Unit in Hydro-II, Change in Product Mix in Pyro Unit on total metal basis & Installation of 1 Lead Refinery, Expansion of CPP through Modernization and Installation of 1 Back Pressure Turbine Generator, Recovery of Minor Metals & Installation of 5 DG Sets].
2. The existing project was accorded Concurrence letter initially for Pyro Plant vide no. J-11013/29/92-EI dated 03/06/1983; Production capacity of Pyro Plant was increased from 105000 TPA (Zn - 70,000 TPA + Pb - 35,000 TPA) to 140000 TPA (Zn - 105000 TPA + Pb - 35000 TPA) vide NOC obtained from RSPCB vide no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05/03/2004. Environmental Clearance for {Hydro Plant} Zinc Smelter I (1,70,000 TPA Zinc Production) & CPP (154MW) vide F.No.J-11011/158/2003-IA.II(I) 31/03/2004; Environmental Clearance for Ausmelt Lead Smelter Plant (60,000 TPA) vide F.No.J-11011/17/2005-IA.II (I) 3/8/2005; Environmental Clearance for {Hydro Plant } Zinc Smelter II (2,10,000 TPA) and expansion of {Hydro Plant } Zinc Smelter I (From 1,70,000 TPA to 2,10,000 TPA) vide no J-11011/279/2006-IA.II(I) dated 06/12/2006; Environmental Clearance for Inclusion of Fumer Plant within the {Hydro Plant } Zinc Smelter II vide F.No.J-11011/279/2006-IA.II(I) 5/10/2015; Environment Clearance for Capacity Expansion in Hydro I & Hydro II Zinc Smelters (from 4,20,000 TPA to 5,04,000 TPA) through debottlenecking vide letter no. J-11011/279/2006-IA.II (I) dated 14/10/2020. Current CTO for Pyro Plant has been accorded by Rajasthan State Pollution Control Board (RSPCB) vide Order no. 2020-2021 / HDF /3070 dated 08/06/2020 (valid upto 29/02/2024). CTO for Hydro-I Plant and CPP (154 MW) has been accorded by RSPCB vide Order No. 2019-2020/HDF/2859 dated 16/01/2020 (valid upto 31/08/2023). CTO for Hydro- II Plant & CPP (100 MW) has been accorded by RSPCB vide Order no. 2019-2020/HDF/2818 dated 18/12/2019 (valid upto 31/01/2024). CTO for Fumer Plant within existing Hydro -II plant was accorded by RSPCB vide Order no. 2020-2021/HDF/3009 dated 08/05/2020 (valid upto 31/03/2025). CTO for Ausmelt Lead Plant was accorded from RSPCB vide Order no. 2020-2021/HDF/3069 dated 05/06/2020 (valid upto 31/08/2023). CTO for installation of 2 D.G. Sets (2 x 8MW) was obtained from RSPCB vide Order no. 2020-2021 / HDF / 3068 dated 05/06/2020 (valid upto 30/04/2024). CTO for Township was obtained vide Order no. 2018-2019/CPM/5201 dated 23/05/2018. The details of EC and CTO are summarised in a tabulated form at para 25.1.7 above.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. Total plant area of Chanderiya Lead Zinc Smelter Complex is 335.89 ha and is under the possession of M/s. Hindustan Zinc Ltd. The entire land is converted for Industrial use.
7. The nearest habitation to plant are Putholi (~0.5 km in SW), Ajoliya Ka Khera (~ 1 km in West) and Biliya (~ Adjacent in North) from plant site. There are approx. 75 villages and 1 city in 10 km radius study area. The EAC deliberated on the Environmental safeguard measures submitted to minimize the impact on the nearest habitation from the plant site and found it satisfactory.
8. The existing water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water). The EAC is of the opinion that no ground water abstraction shall be permitted for the existing and proposed expansion project and PP shall maximize the usage of treated water. In this regard, PP shall complete all the tasks w.r.t. usage of STP treated water and accordingly layout the pipeline connection and other related activities for supply of treated water for this expansion project, as the usage of treated water is environmentally and sustainable best practice.
9. Putholi Nala is passing through the plant site and Berach River is flowing adjacent to the project site in the East direction. Also, Gambhir Nadi (~4.0 km, S), Nagdi ka Nala (~8.5 km, NNE) and Canal (~8 km, WNW) are flowing within 10 Km. radius of the plant site. EAC noted that a NOC letter has been issued by Executive Engineer Water Resource Department vide letter dated 16.01.2023 also stating that Berach river passes in the east direction approximately 0.5 km from the Chanderiya Lead Zinc Smelter, whose water has not reached the Chanderiya Lead Zinc Smelter complex in last 25 years. The EAC further deliberated on the submitted Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple erosion control measures and is of the view that the plan shall be strictly implemented for safeguarding the water bodies.
10. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards. The EAC also deliberated on mineral composition of PM₁₀ and also the mitigation measures that will be undertaken to minimise the same and is of the opinion that proposed mitigation measures shall be strictly implemented.
11. The EAC noted that existing greenbelt has already been developed in ~125.02 ha which is about ~37.21 % of the total project area 335.89 ha with total saplings of 1,34,800 Trees. The greenbelt density is less than 2500/ha and PP will ensure to maintain and enhance

same by doing gap plantation and using technique like Miyawaki to achieve plantation density @2500/ha for proposed expansion. Total 1,79,450 numbers of trees will be planted and nurtured within the existing plant premises in 3 years. The EAC emphasised that PP shall implement a stringent greenbelt development plan in consultation with Arid Forest Research Institute, Jodhpur.

12. The EAC noted that Six schedule - I species i.e., *Panthera pardus* (Leopard), *Prionailurus rubiginosus* (Rusty Spotted Cat), *Gyps bengalensis* (White-rumped Vulture), *Falco jugger* (Laggar Falcon), *Pavo cristatus* (Indian Peafowl), *Varanus bengalensis* (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife conservation plan for the Schedule I species has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The same has been forwarded to Chief Conservator of Forest, Udaipur vide Letter No. F()FCA/DFO/2022-23/1100 dated 10.02.2023. The approval of the WLCP is under process with the State Department. The total budget allocated for implementation of Wildlife Conservation plan is Rs. 7.86 Crores for the implementation period of 10 years.
13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
14. The EAC noted that a Show cause Notice was issued to the M/s. Hindustan Zinc Ltd. by MOEFCC, New Delhi vide letter dated 06/04/2021 under Section 5 of Environment (Protection) Act, 1986 for violation of provisions of under EIA Notification, 2006. Reply of the same was submitted to MoEFCC, New Delhi vide letter dated 19/04/2021. After detailed deliberation as per the personal hearing held on 05/08/2021, the Show cause Notice has been withdrawn by MoEFCC, New Delhi vide letter dated 31/08/2021. M/s. Hindustan Zinc Ltd. further reported about an accident that took place on 12th August 2022 in the plant premises, when the Sulphuric acid tank ST-02 with a capacity of 5000 Mt at CLZS, Hydro 2 unit suddenly collapsed resulting in acid gushing out of the tank and affecting people who were nearby and causing large scale surrounding property damage as well. On the basis of monitoring conducted by the Regional Office, MoEF&CC on 27.07.2022 and subsequent submission of its report vide letter dated 27.08.2022 to the Ministry, MoEF&CC observed the non-compliance w.r.t. Contingency & disaster plans." In view of the same, Ministry issued a letter to M/s. Hindustan Zinc Ltd. on 07.10.2022 seeking clarification for non-compliances, ATR and action plan on non complied conditions to which PP submitted the pointwise reply to MoEF&CC, New Delhi on 04.11.2022.
15. The EAC deliberated on the PH issues raised during the earlier EC and the status of implementation of the action plan of the commitment made by the PP during the existing ECs and found it satisfactory.
16. The Committee deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing for the proposed project and found it satisfactory. The EAC also took into account the Undertaking dated 22.03.2023 submitted for adoption of 5 No. of Villages Ajoliya Ka Khera, Biliya, Moonga Ka Khera Putholi and Nagri.

17. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO, MoEFCC and the closure report of IRO and found it satisfactory.
18. The EAC deliberated on the pointwise reply presented by the PP of the two representations received regarding the project dated 20.01.2023 & 19.03.2023 and found it satisfactory.
19. The Committee deliberated upon the reply of the ADS submitted by project proponent and found it satisfactory.
20. The Committee deliberated upon the written submission of project proponent and found it satisfactory.
21. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
22. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

25.1.27 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on Parivesh portal** under the provisions of EIA Notification, 2006 and subject to the stipulation of following specific conditions and general conditions;

A. Specific Condition:

- i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- ii. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- iii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

- iv. The water requirement of 38570 KLD (existing) shall be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water) and 500 KLD additional water for the Minor Metal Unit shall be sourced from RO permeate water from ETP. No ground water abstraction is permitted. PP shall maximize the usage of treated water
- v. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- vi. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to proposed project as per the action plan submitted.
- vii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- viii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- ix. Particulate matter emission from stacks shall be less than 30 mg/Nm^3 . Action plan submitted to limit the dust emission shall be strictly implemented. The PP shall periodically conduct Mineralogical composition study of the PM10 and shall ensure the constituents are well within the permissible limits. The reports shall be submitted to MoEFCC and uploaded in their six-monthly EC compliance report.
- x. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- xi. Risk assessment and Disaster Management Plan shall be strictly implemented as per the action plan submitted to the Ministry.
- xii. SO_2 emissions from H_2SO_4 plant shall be less than 1 kg/t of acid.
- xiii. Acid mist from H_2SO_4 plant shall be less than 30 mg/Nm^3 .
- xiv. Particulate matter levels from the stacks shall be less than 30 mg/Nm^3 .
- xv. 100% Solid waste generated shall be utilised/ properly disposed. The PP shall explore and implement the principles of 'Circular Economy'. The PP shall periodically conduct study for the presence of Heavy metals/ metalloids contamination and leaching in the soil within 2 kms of the Project and shall take all remedial measures in this respect. The reports shall be submitted to MoEFCC and uploaded in their six-monthly EC compliance report.
- xvi. Putholi Nala is passing through the plant site and Berach River is flowing adjacent to the project site in the East direction. Also, Gambhir Nadi(~4.0 km, S), Nagdi ka Nala (~8.5 km, NNE) and Canal (~8 km, WNW) are flowing within 10 Km. radius of the plant site. As submitted, a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be strictly implemented.
- xvii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be

- treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- xviii. Existing ETP shall be strengthened to recycle additional effluent by installing MEE for RO rejects.
 - xix. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
 - xx. The nearest habitation to plant are Putholi (~0.5 km in SW), Ajoliya Ka Khera (~ 1 km in West) and Biliya (~ Adjacent in North) from plant site. There are approx. 75 villages and 1 city in 10 km radius study area. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this locations in its environmental monitoring programme.
 - xxi. Solar Energy shall be generated at the roof tops of the plant and office buildings.
 - xxii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
 - xxiii. The PP shall implement the recommendations of the root cause analysis report on accident occurred in the Unit to prevent the future accident in the Industry.
 - xxiv. Three tier Green Belt shall be developed in at least 37% of the project area and shall be completed by 2023-24 all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Gap filling shall be undertaken and survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Further, greenbelt shall also be developed in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield to act as green barrier for air pollution & noise levels towards the Putholi, Ajoliya Ka Khera and Biliya villages inside the plant premises. All the plantation work should be done in consultation with Arid Forest Research Institute, Jodhpur. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
 - xxv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
 - xxvi. Air Cooled condensers shall be used in the captive power plant.
 - xxvii. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.
 - xxviii. As committed by the PP to adopt the five revenue villages namely Ajolia Ka Khera, Biliya, Moonga Ka Khera, Nagri and Putholi, as a part of model village development plan, project proponent shall strictly implement the submitted plan for socio-economic development to develop them into model villages. PP shall extend the occupational health monitoring to the villagers on a random basis to establish any health disorders due to the project's operations. PP shall also construct and maintain Rain water harvesting pits in the adjacent village and school. The PP shall develop avenue plantation along the roads, villages and schools and other suitable places.

- xxix. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xxx. The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- xxxi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- xxxii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as four Continuous Ambient Air Quality Station (CAAQS) one within and three outside the plant area at an angle of 120° each for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- iii. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emission to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vi. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- vii. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- viii. Provide covered sheds for raw materials like coal, etc.
- ix. Practice use of low-sulphur tars for baking anodes.
- x. Plant internal roads shall be concreted and sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly. shall be used to regularly clean the roads.
- xi. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emission to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- vi. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P) A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases.
- ii. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

- i. 1000% utilisation of fly ash shall be ensured. All the fly ash shall be provided to cement and cement brick manufacturers for further utilisation and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- iii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & transboundary Movement) Rules, 2016 and amendment thereof.
- iv. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE).
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders.

The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration in Terms of Reference Proposal

Agenda No. 25.2

25.2 Setting of Integrated Steel Plant for production of 7.0 MTPA Liquid Steel by M/s ArcelorMittal Nippon Steel India – located at Paradeep Facility at, Jagatsinghpur District, Odisha – Consideration of TOR.

[Proposal No. IA/OR/IND1/416399/2023; File No. IA-J-11011/43/2023-IA-II(IND-I)]
[Consultant: MECON LIMITED; Valid upto: 02.09.2024]

- 25.2.1 M/s. ArcelorMittal Nippon Steel India (AM/NS India) has made an application online vide proposal no. IA/OR/IND1/416399/2023 dated 31.01.2023 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) 4 (b) Coke Oven plants and 1(d) Thermal Power Plant under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to Bhitarkanika Wild life sanctuary located at a distance of 6.5 km towards NE direction from project site and the project location in severely polluted area being appraised at Central Level.
- 25.2.2 Name of the EIA consultant: M/s. MECON Limited [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA0195 (Rev.02) valid till 02.09.2024, as on March 23, 2023].

Details submitted by Project proponent

- 25.2.3 The project of M/s. ArcelorMittal Nippon Steel India Limited (AM/NS India), Paradeep Facility, located in villages of Udayabata, Nuagarh and Bijaychandrapur under Kujang Tehsil,

Jagatsinghpur District, Odisha State is for setting up of a new Integrated Steel Plant for production of 7 Million Tons Per Annum (MTPA).

25.2.4 Environmental site settings:

Sl. No.	Particulars	Details submitted by the PP	Remarks																																																																				
i.	Total land	651.27 ha (Private: 42.26 ha, Govt.: 11.56 ha, Agriculture: 587.22 ha and Grazing land: 10.23 ha.)	Existing Land Use: 1) Forest land: 11.56 ha 2) Agriculture land: 587.22 ha 3) Grazing land: 10.23 ha 4) Road/other infrastructure: 5.7 ha 5) Plantation/green belt: 4.04 ha 6) Others: 32.52 ha																																																																				
ii.	Land acquisition details as per MoEF&CC O.M. dated 07.10.2014	The total area of the proposed plant is admeasuring about 651.27 ha. Out of which 476.90 ha is under the possession of AM/NS India and 174.37 ha is under the process of acquisition.																																																																					
iii.	Existence of habitation & involvement of R&R, if any	Project site: 7 hamlets under 3 revenue villages: 1. Udayabata village – Udayabata, Bhimanasi, Mundakati, Goradi and Sukuakhala 2. Nuagarh village – Handia 3. Bijaychandrapur village - Bijachandrapur Study area: <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr><td>1</td><td>Arhoi</td><td>8</td><td>N</td></tr> <tr><td>2</td><td>Baulakani</td><td>8</td><td>N</td></tr> <tr><td>3</td><td>Baghumedi</td><td>8</td><td>N</td></tr> <tr><td>4</td><td>Bajarpur</td><td>6.2</td><td>N</td></tr> <tr><td>5</td><td>Kochila</td><td>6.5</td><td>N</td></tr> <tr><td>6</td><td>Sarumohin</td><td>7</td><td>N</td></tr> <tr><td>7</td><td>Ramanagar</td><td>8</td><td>NE</td></tr> <tr><td>8</td><td>Nunamatia</td><td>7</td><td>NE</td></tr> <tr><td>9</td><td>Kharinasi</td><td>4</td><td>NE</td></tr> <tr><td>10</td><td>Paligarh</td><td>4</td><td>NE</td></tr> <tr><td>11</td><td>Bahakuda</td><td>4.5</td><td>NE</td></tr> <tr><td>12</td><td>Akharhashahi</td><td>4.5</td><td>N</td></tr> <tr><td>13</td><td>Mundakati</td><td rowspan="5">Within project site</td><td rowspan="5">Within project site</td></tr> <tr><td>14</td><td>Bijayachandrapur</td></tr> <tr><td>15</td><td>Udayachandrapur</td></tr> <tr><td>16</td><td>Udayabata</td></tr> <tr><td>17</td><td>Bhimanasi</td></tr> <tr><td>18</td><td>Shukhuakhala</td><td>0.2</td><td>SE</td></tr> </tbody> </table>	Sl. No.	Habitation	Distance	Direction	1	Arhoi	8	N	2	Baulakani	8	N	3	Baghumedi	8	N	4	Bajarpur	6.2	N	5	Kochila	6.5	N	6	Sarumohin	7	N	7	Ramanagar	8	NE	8	Nunamatia	7	NE	9	Kharinasi	4	NE	10	Paligarh	4	NE	11	Bahakuda	4.5	NE	12	Akharhashahi	4.5	N	13	Mundakati	Within project site	Within project site	14	Bijayachandrapur	15	Udayachandrapur	16	Udayabata	17	Bhimanasi	18	Shukhuakhala	0.2	SE	Status of R&R: 7 hamlets about 491 displaced Families as updated through Baseline Survey in the year 2022 are to be Rehabilitated and Resettled as per R&R Policy, 2006. The updated Rehabilitated Action Plan (RAP) is under approval by the District Administration. The requisite land for construction of R&R Colony is under acquisition by IDCO.
Sl. No.	Habitation	Distance	Direction																																																																				
1	Arhoi	8	N																																																																				
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Sl. No.	Particulars	Details submitted by the PP				Remarks
		19	Nuagarh	0.1	W	
		20	Banahibaripur	5	ENE	
		21	Barakdikhala	10	E	
		22	Ghanagalia	6.5	SE	
		23	Paradeep port area	7.5	SE	
		24	Udaya chandrapur	6	S	
		25	Atharabanki	5	S	
		26	Patekandha	7.5	S	
		27	Abhayachandpur	7.5	SW	
		28	Barharakandha	7.5	SW	
		29	Khasulirhia	8	SW	
		30	Bagadia	6	SW	
		31	Siju	5.5	SW	
		32	Nimidih	2	S	
		33	Udayabata	1	S	
		34	Paradeep garh	1	S	
		35	Chakradharapur	1	S	
		36	Pippal	0.3	W	
		37	Pitambarpur	3.5	SW	
		38	Narendrapur	4	SW	
		39	Balirhia	4.5	SW	
		40	Singatali	0.1	W	
		41	Chaumuhani	0.2	N	
		42	Garharamit	4	NW	
		43	Purushottampur	5	NW	
		44	Dasharajapuradia	3.5	N	
		45	Maharangadia	4	N	
		46	Subale	5.5	NW	
		47	Mokhahati	6	NW	
		48	Mangalapur	9.5	NNW	
		49	Baulaparha	9	NNW	
		50	Dadhipur	9	NNW	
		51	Bandhaparha	9	NNW	
		52	Kumbharaparha	8.5	NNW	
		53	Samatasinghharpur	8.5	NNW	
		54	Gojabandha	7	NNW	
		55	Chherhakani	6.5	NNW	
		56	Barakandha	6	NNW	
		57	Sathiebati	6	NNW	
		58	Sanataragan	9	NW	
		59	Ghokhabandha	9	NW	
		60	Belar Nuagan	8.5	NW	
		61	Gopinathapur	10	NW	
		62	Gatanai	8.5	NWN	
		63	Tikarapanga	7	NWN	
		64	Kodakana	7	W	
		65	Mashakani	9.5	NW	

Sl. No.	Particulars	Details submitted by the PP				Remarks
		66	Bandhakud	7.5	NW	
		67	Balarampur	9.5	W	
		68	Santara	8	W	
		69	Bhutamundai	5	W	
		70	Uchchhabanandapur	5.5	W	
		71	Mangarajpur	6	WSW	
		72	Gandakipur	8	WSW	
		73	Kothi	5.5	SW	
		74	Biswali	9	WSW	
		75	Barhang	9.5	W	
		76	Panapalli	9	WSW	
		77	Jimani	7	SW	
		78	Fatepur	7.5	SW	
		79	Trilochanpur	8.5	SW	
		80	Bagadia	6.5	SW	
		81	Rangiagarh	4.8	SW	
iv.	Latitude and longitude of all corners of the project site	Point	Latitude	Longitude		
		P-1	20 ⁰ 18'24.53"	86 ⁰ 38'21.08"		
		P-2	20 ⁰ 18'25.04"	86 ⁰ 38'20.10"		
		P-3	20 ⁰ 18'25.30"	86 ⁰ 38'20.15"		
		P-4	20 ⁰ 18'41.37"	86 ⁰ 37'46.18"		
		P-5	20 ⁰ 18'41.49"	86 ⁰ 37'46.13"		
		P-6	20 ⁰ 18'59.65"	86 ⁰ 37'12.18"		
		P-7	20 ⁰ 19'3.01"	86 ⁰ 37'12.54"		
		P-8	20 ⁰ 19'24.77"	86 ⁰ 37'17.38"		
		P-9	20 ⁰ 19'24.92"	86 ⁰ 37'17.44"		
		P-10	20 ⁰ 19'33.16"	86 ⁰ 37'18.01"		
		P-11	20 ⁰ 19'43.95"	86 ⁰ 37'17.90"		
		P-12	20 ⁰ 19'51.24"	86 ⁰ 37'19.03"		
		P-13	20 ⁰ 19'49.21"	86 ⁰ 37'28.69"		
		P-14	20 ⁰ 19'39.99"	86 ⁰ 38'0.72"		
		P-15	20 ⁰ 19'39.67"	86 ⁰ 38'3.63"		
		P-16	20 ⁰ 19'39.10"	86 ⁰ 38'5.63"		
		P-17	20 ⁰ 19'37.35"	86 ⁰ 38'9.32"		
		P-18	20 ⁰ 19'36.74"	86 ⁰ 38'10.39"		
		P-19	20 ⁰ 19'36.63"	86 ⁰ 38'10.74"		
		P-20	20 ⁰ 19'35.69"	86 ⁰ 38'12.40"		
		P-21	20 ⁰ 19'34.67"	86 ⁰ 38'16.03"		
		P-22	20 ⁰ 19'29.72"	86 ⁰ 38'26.77"		
		P-23	20 ⁰ 19'32.00"	86 ⁰ 38'32.03"		
		P-24	20 ⁰ 19'32.47"	86 ⁰ 38'33.85"		
		P-25	20 ⁰ 19'27.72"	86 ⁰ 39'1.68"		
		P-26	20 ⁰ 19'17.67"	86 ⁰ 38'37.12"		
		P-27	20 ⁰ 18'55.06"	86 ⁰ 38'48.44"		
		P-28	20 ⁰ 18'46.26"	86 ⁰ 38'43.03"		
		P-29	20 ⁰ 18'32.11"	86 ⁰ 38'25.22"		

Sl. No.	Particulars	Details submitted by the PP			Remarks
		P-43	20 ⁰ 19'31.21"	86 ⁰ 37'17.02"	
		P-47	20 ⁰ 19'51.14"	86 ⁰ 37'14.40"	
		P-50	20 ⁰ 19'49.31"	86 ⁰ 36'44.29"	
		P-71	20 ⁰ 19'40.82"	86 ⁰ 36'26.37"	
		P-75	20 ⁰ 19'50.42"	86 ⁰ 36'19.71"	
		P-79	20 ⁰ 19'51.78"	86 ⁰ 36'5.26"	
		P-88	20 ⁰ 19'12.74"	86 ⁰ 37'5.66"	
		P-89	20 ⁰ 19'16.42"	86 ⁰ 36'58.08"	
		P-90	20 ⁰ 19'12.82"	86 ⁰ 36'55.35"	
		P-91	20 ⁰ 19'11.33"	86 ⁰ 36'56.95"	
		P-96	20 ⁰ 19'9.31"	86 ⁰ 36'55.17"	
		P-98	20 ⁰ 19'1.99"	86 ⁰ 37'8.82"	
		P-102	20 ⁰ 19'17.59"	86 ⁰ 37'14.65"	
		P-104	20 ⁰ 19'19.63"	86 ⁰ 37'8.69"	
		P-105	20 ⁰ 19'54.72"	86 ⁰ 36'47.20"	
		P-108	20 ⁰ 19'40.76"	86 ⁰ 36'39.24"	
		P-109	20 ⁰ 19'35.77"	86 ⁰ 36'36.45"	
		P-111	20 ⁰ 19'28.73"	86 ⁰ 36'32.56"	
		P-112	20 ⁰ 19'28.56"	86 ⁰ 36'32.89"	
		P-115	20 ⁰ 19'26.41"	86 ⁰ 36'32.38"	
		P-116	20 ⁰ 19'26.33"	86 ⁰ 36'32.56"	
		P-117	20 ⁰ 19'22.12"	86 ⁰ 36'30.76"	
		P-118	20 ⁰ 19'16.63"	86 ⁰ 36'41.45"	
		P-119	20 ⁰ 19'16.15"	86 ⁰ 36'41.14"	
		P-120	20 ⁰ 19'12.73"	86 ⁰ 36'47.92"	
		P-121	20 ⁰ 19'14.96"	86 ⁰ 36'48.08"	
		P-124	20 ⁰ 19'16.24"	86 ⁰ 36'51.18"	
		P-125	20 ⁰ 19'17.74"	86 ⁰ 36'51.94"	
		P-126	20 ⁰ 19'17.86"	86 ⁰ 36'52.25"	
		P-127	20 ⁰ 19'19.17"	86 ⁰ 36'52.68"	
		P-128	20 ⁰ 19'19.32"	86 ⁰ 36'53.28"	
		P-129	20 ⁰ 19'20.00"	86 ⁰ 36'53.40"	
		P-130	20 ⁰ 19'21.20"	86 ⁰ 36'54.36"	
		P-132	20 ⁰ 19'24.17"	86 ⁰ 36'55.38"	
		P-134	20 ⁰ 19'26.41"	86 ⁰ 36'56.49"	
		P-135	20 ⁰ 19'27.45"	86 ⁰ 36'56.83"	
		P-138	20 ⁰ 19'30.46"	86 ⁰ 36'57.88"	
		P-140	20 ⁰ 19'30.08"	86 ⁰ 36'58.75"	
		P-141	20 ⁰ 19'30.61"	86 ⁰ 36'59.02"	
		P-142	20 ⁰ 19'31.79"	86 ⁰ 36'58.97"	
		P-143	20 ⁰ 19'33.42"	86 ⁰ 36'59.89"	
		P-146	20 ⁰ 19'34.42"	86 ⁰ 37'2.24"	
		P-148	20 ⁰ 19'35.20"	86 ⁰ 37'3.01"	
		P-150	20 ⁰ 19'29.01"	86 ⁰ 37'16.92"	
		P-151	20 ⁰ 19'45.05"	86 ⁰ 37'16.88"	
		P-152	20 ⁰ 19'50.52"	86 ⁰ 37'17.91"	

Sl. No.	Particulars	Details submitted by the PP			Remarks
		P-153	20 ⁰ 19'51.93"	86 ⁰ 37'9.92"	
		P-155	20 ⁰ 19'52.28"	86 ⁰ 37'6.15"	
		P-157	20 ⁰ 19'57.86"	86 ⁰ 36'49.06"	
		P-159	20 ⁰ 19'41.67"	86 ⁰ 35'50.50"	
		P-160	20 ⁰ 19'41.87"	86 ⁰ 35'51.09"	
		P-161	20 ⁰ 19'35.63"	86 ⁰ 36'2.94"	
		P-162	20 ⁰ 19'35.44"	86 ⁰ 36'2.97"	
		P-164	20 ⁰ 19'27.63"	86 ⁰ 36'18.40"	
		P-165	20 ⁰ 19'22.54"	86 ⁰ 36'27.93"	
		P-167	20 ⁰ 19'28.60"	86 ⁰ 36'27.93"	
		P-169	20 ⁰ 19'32.46"	86 ⁰ 36'28.54"	
		P-170	20 ⁰ 19'34.91"	86 ⁰ 36'28.41"	
		P-171	20 ⁰ 19'37.47"	86 ⁰ 36'27.84"	
		P-173	20 ⁰ 19'41.91"	86 ⁰ 36'25.60"	
		P-175	20 ⁰ 19'46.25"	86 ⁰ 36'22.88"	
		P-176	20 ⁰ 19'49.28"	86 ⁰ 36'21.76"	
		P-178	20 ⁰ 19'48.6"	86 ⁰ 36'20.02"	
		P-179	20 ⁰ 19'49.27"	86 ⁰ 36'19.97"	
		P-180	20 ⁰ 19'49.28"	86 ⁰ 36'19.75"	
		P-181	20 ⁰ 19'50.49"	86 ⁰ 36'19.81"	
		P-182	20 ⁰ 19'52.05"	86 ⁰ 36'19.92"	
		P-183	20 ⁰ 19'52.17"	86 ⁰ 36'18.09"	
		P-184	20 ⁰ 19'53.89"	86 ⁰ 36'18.23"	
		P-185	20 ⁰ 19'55.08"	86 ⁰ 36'18.71"	
		P-186	20 ⁰ 19'55.67"	86 ⁰ 36'18.06"	
		P-187	20 ⁰ 19'56.80"	86 ⁰ 36'17.98"	
		P-188	20 ⁰ 19'56.59"	86 ⁰ 36'16.16"	
		P-189	20 ⁰ 19'57.14"	86 ⁰ 36'16.34"	
		P-190	20 ⁰ 19'58.40"	86 ⁰ 36'15.04"	
		P-192	20 ⁰ 19'56.79"	86 ⁰ 36'10.80"	
		P-194	20 ⁰ 19'58.36"	86 ⁰ 36'9.58"	
		P-196	20 ⁰ 19'54.45"	86 ⁰ 36'6.84"	
		P-197	20 ⁰ 19'54.12"	86 ⁰ 36'6.40"	
		P-200	20 ⁰ 19'50.48"	86 ⁰ 36'3.40"	
		P-201	20 ⁰ 19'49.11"	86 ⁰ 36'2.34"	
		P-202	20 ⁰ 19'49.37"	86 ⁰ 36'1.57"	
		P-204	20 ⁰ 19'47.76"	86 ⁰ 36'1.01"	
		P-207	20 ⁰ 19'46.48"	86 ⁰ 35'58.37"	
		P-208	20 ⁰ 19'47.93"	86 ⁰ 35'58.75"	
		P-210	20 ⁰ 19'48.81"	86 ⁰ 35'56.55"	
		P-211	20 ⁰ 19'49.33"	86 ⁰ 35'56.01"	
		P-212	20 ⁰ 19'48.19"	86 ⁰ 35'55.43"	
		P-213	20 ⁰ 19'47.84"	86 ⁰ 35'54.75"	
		P-214	20 ⁰ 19'47.27"	86 ⁰ 35'54.61"	
		P-217	20 ⁰ 19'45.67"	86 ⁰ 35'51.70"	
		P-218	20 ⁰ 19'45.07"	86 ⁰ 35'50.20"	

Sl. No.	Particulars	Details submitted by the PP			Remarks												
		P-219	20 ⁰ 19'44.01"	86 ⁰ 35'47.59"													
		P-220	20 ⁰ 19'43.17"	86 ⁰ 35'47.32"													
		P-222	20 ⁰ 19'43.98"	86 ⁰ 35'49.23"													
v.	Elevation of the project site	The elevation is in the range of 1 to 4 m above mean sea level.			The same will be elevated to +4.5m above MSL to avoid flooding. To fill the project site, type of filling, source, and methodology will be explored, analyzed, and finalized scientifically by engaging a competent agency like IIT/ NIT.												
vi.	Involvement of forest land if any.	About 11.56 ha of forest land is involved within the project site. Obtaining forest clearance is under process.			The Forest Clearance Application submitted vide Proposal no. FC Proposal No. FP/OR/IND/419276/2023 dtd. 22.02.2023.												
vii.	Water body (Rivers, lakes, pond, nala, natural drainage, canal etc.) exists within the project site as well as study area.	<p>Project site: Nil</p> <p>Monsoonal ponds are available within the project site.</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Mahanadi river</td> <td>100m</td> <td>North</td> </tr> <tr> <td>Taladanda canal</td> <td>100m</td> <td>South</td> </tr> <tr> <td>Bay of Bengal</td> <td>8.5 km</td> <td>East</td> </tr> </tbody> </table> <p>Apart from the above, monsoonal ponds are available in the study area.</p>			Water body	Distance	Direction	Mahanadi river	100m	North	Taladanda canal	100m	South	Bay of Bengal	8.5 km	East	
Water body	Distance	Direction															
Mahanadi river	100m	North															
Taladanda canal	100m	South															
Bay of Bengal	8.5 km	East															
viii.	Existence of ESZ/ESA/National park/wild life sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.	<p>Bhitarkanika Wildlife Sanctuary is located at about 6.5 km (NE) from project site.</p> <p>Gahirmatha (Marine) Wildlife Sanctuary is located at about 7.5 km (NE) from project site.</p> <p>Reserved forests: Sanatubi (9 km), Petachhola (8.5 km) and Kansararhia (9 km) are located in NE, NNE and NE respectively w.r.t. project site.</p>															

25.2.5 AM/NS India has reported that previous management (ESSAR) had obtained the Environment Clearance during 2008 from the Ministry for 6 MTPA Integrated Steel Plant to be located at this project site, but couldn't be implemented due to financial constraint. AM/NS India has reviewed the project with latest technology and revised product configurations suitable for the current market scenario.

25.2.6 The unit configuration and capacity of proposed project is given as below:

Sl. No.	Plant equipment/facility	Configuration	Capacity
1.	Coke oven plant with CDQ	3 x 66 ovens, 6.25m tall	2.89 MTPA
2.	Sinter plant	1 x 496 m ²	5.1 MTPA
3.	Pellet Plant	768 m ²	1x6 MTPA
4.	Blast furnace	2 x 4500m ³	7.4 MTPA
5.	Slag Granulation Plant	2x4020 TPD	2.8 MTPA
6.	Granshot Machine	1x360 t/hr	0.35 MTPA
7.	Desulphurization units	3 x 250 t	7 MTPA
8.	Basic oxygen furnace	3 x 250 t	7 MTPA
9.	Ladle furnace	3 x 250 t	7 MTPA
10.	RH-Degasser	1 x 250 t	
11.	Billet/Bloom cum Beam blank caster	1 x 6-strand	1.7 MTPA
12.	Billet caster	2 x 8-strand	3.6 MTPA
13.	Bloom cum Billet Caster	1 x 6-strand	1.7 MTPA
14.	Rail mill	1x1 Mt/yr	1 MTPA
15.	Bar Mill	2x1.4 Mt/yr	2.8 MTPA
16.	Wire Rod Mill	2x1 Mt/yr	2 MTPA
17.	Medium section mill	1x0.8 Mt/yr	0.8 MTPA
18.	Oxygen plant	2 x 2500 t/d	5000 TPD
19.	Calcination plants		
	- Lime plant - Dolo plant	3 x 600 t/d 2 x 600 t/d	1800 TPD 1200 TPD
20.	Captive power plant (surplus gas)	4x50 MW	200 MW
	WHRB (Sinter Plant)	1x6 MW	6 MW
	TRT (BF)	2x22 MW	44 MW
	Solar power plant	1x21 MW & 1x17.5 MW	38.5 MW

25.2.7 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

Sl. No.	Raw materials	(T/year)	Source	Distance from site (km)	Mode of transport
1.	Iron ore lump (CLO)	18,01,500	Indigenous: Joda-Barbil, Koira and Nayagarh mines region in Odisha	350	Rail
2.	Iron ore fines	1,06,18,300		350	Rail
3.	Prime/hard Coking coal	12,48,800	Imports: Mozambique, Australia, and Canada	8500	Rail/Sea
4.	Semi-soft coking coal	24,97,700	Imports: Mozambique, Australia, and Canada	8500	Rail/Sea
5.	Lean coal	4,16,300	Indigenous	350	Rail
6.	Non coking coal for PCI	15,99,000	Import: South Africa, Australia and Indonesia.	6550	Rail/Sea

Sl. No.	Raw materials	(T/year)	Source	Distance from site (km)	Mode of transport
7.	Limestone (BF and SMS grade)	18,47,900	Indigenous: BF grade limestone will be procured from Quarries located in Jukehi-Katni-Niwar region, Central India and mines located in Bagalkot area in Karnataka. SMS grade limestone will be met through imports from Middle East (UAE and Oman).	1350 & 3150	Rail/Sea
8.	Dolomite (BF and SMS grade)	10,62,300	Indigenous: Purchase from the mines located in the Sundargarh district, Odisha as well as from mines in the Katni-Bilaspur region, Central India.	435 & 650	Rail
9.	Quartzite	1,91,800	Indigenous: Eastern region and Dhone in Kurnool, AP.	1280	Rail
10.	Bentonite	43,700	Indigenous: Gujarat and Rajasthan.	1950	Road
11.	Fe-Si	3,500		1950	Road/Rail
12.	Si-Mn	70,000		1950	Road/Rail
13.	Aluminum	14,000		1950	Road/Rail
14.	Flourspar	5,300		1950	Road/Rail

25.2.8 The water requirement for the proposed project is estimated as 92064 m³/day. The same will be met from Taladanda canal which is flowing 0.1 km in southern side w.r.t. project site. The permission for drawl of surface water is obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL), vide letter no. CGM/SLNA/AMNS/-130/Vol-VI/3260, dated 12.09.2022 for 34.82 cusec and the High Level Clearance Authority (HLCA) of IPICOL approved the drawl of additional 9.68 cusec surface water, vide Letter No. SJ/HLCA-221/17-18/21, dated 31.01.2023.

25.2.9 The power requirement for the proposed project is estimated as 612 MW (678 MVA), out of which 250 MW will be met from in house power generation through Surplus gas based power plant, WHRB, TRT etc. The balance will be obtained from OPTCL. In addition, generation of 38.5 MW power is planned through solar power.

25.2.10 The capital cost of the project is Rs. 38,000 Crores and the capital cost for environmental protection measures is proposed as Rs. 3800 Crores. The employment generation from the proposed project is given below.

Manpower Details	Direct	Contractual
During construction	600	20400
Total Employment	21000	
During operation	2550	4450
Total Employment	7000	

25.2.11 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

25.2.12 Proposed Terms of Reference: [Baseline data collection period: December 2022 to February 2023]

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Wind speed, wind direction, rainfall, RH, Solar radiation.	1	Hourly data generation for three months	
b. AAQ parameters	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO and heavy metals.	12	24 hours, Weekly two samples for three months. i.e. one season.	
B. Noise				
	Sound pressure levels during day and night time	8	Once in three months	
C. Water				
Surface water/Groundwater quality parameters	As per CPCB and IS: 10500	8 each	Once in three months	
D. Land				
a. Soil quality	Physical, chemical and available major nutrients	8	Once in three months	
b. Land use	Preparation of maps for LULC, Topographical, drainage, DEM etc.	Once	Once in three months	Covering project site and its study area of 10 km radius
E. Biological				
a. Aquatic	Flora and fauna	Two	Once in three months	
b. Terrestrial	Flora and fauna	Once	Once in three months	Covering project site

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
				and its study area of 10 km radius
F. Socio-economic parameters	To assess the impact on the agriculture, pattern of demand, consumption behaviour, educational status, people's perception against the impact of the project etc.	60	Once in three months	Field survey will be conducted in the study area of 10 km radius

Written representations:

25.2.13 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 21.03.2023 through email dated 21.03.2023 submitted the following information:

S. No.	Details sought	Reply of PP
1.	Coastal Regulation Zone survey	The Mahanadi River flows adjacent to the project site on northern side. No Development Zone (NDZ) of 100m is considered from HTL of above River and no plant facilities will be planned in NDZ. To protect the property from encroachment, it is proposed to construct the boundary wall along the property line. However, the CRZ mapping will be carried out through an agency authorized by MoEF&CC to confirm the boundary wall alignment. No mangroves are present within project site and the presence of mangroves in the nearby areas will also be demarcated in CRZ mapping.
2.	Elevation of the project site	The present elevation of the project site varies from 1 to 4 m above MSL. The same will be elevated to +4.5m above MSL to avoid flooding. To fill the project site, type of filling, source, and methodology will be explored, analyzed, and finalized scientifically by engaging a competent agency like IIT/NIT.
3.	Rehabilitation and Resettlement	Total seven numbers of villages/hamlets are located within the project site. About 491 displaced families will be Rehabilitated and Resettled as per R&R policy, 2006 (as per baseline survey, 2022). Rehabilitated Action Plan (RAP) is under the final stage of approval by District administration. The requisite land for the construction of R&R colony is under acquisition by IDCO
4.	Forest Clearance	About 11.56 ha (i.e., 1.77% of total project area) of forest land is involved within the project site out of 651.27 ha. Obtaining Forest Clearance (FC) is under process, for which FC application (Proposal no. FP/OR/IND/419276/2023) has already been submitted on 22.02.2023.

Deliberation by the Committee

25.2.14 The Committee noted the following:

- i. The instant proposal is for setting up of a new Integrated Steel Plant for production of 7 Million Tons Per Annum (MTPA).
- ii. The EAC noted that earlier the project site was with previous management (ESSAR) who had obtained the Environment Clearance during 2008 from the Ministry for 6 MTPA Integrated Steel Plant to be located at this project site, but couldn't be implemented due to financial constraint.
- iii. The total area of the proposed plant is measuring about 651.27 ha. Out of which 476.90 ha is under the possession of AM/NS India and 174.37 ha is under the process of acquisition.
- iv. The project area involves about 11.56 ha of forest land for which diversion proposal has been submitted vide Proposal no. FP/OR/IND/419276/2023 dated 22.02.2023.
- v. The present elevation of the project site varies from 1 to 4 m above MSL. PP has reported that the same will be elevated to +4.5m above MSL to avoid flooding. To fill the project site, type of filling, source, and methodology will be explored, analyzed, and finalized scientifically by engaging a competent agency like IIT/ NIT.
- vi. The project site inhabits seven hamlets under three revenue villages which involves about 491 displaced families to be Rehabilitated and Resettled as per R&R Policy, 2006. PP has reported that the Rehabilitated Action Plan (RAP) is under the final stage of approval by District administration. The requisite land for the construction of R&R colony is under acquisition by IDCO.
- vii. There are about 81 villages within the study area of 10 km from the project site.
- viii. The EAC noted that Bhitarkanika Wild life sanctuary is located at a distance of 6.5 km towards NE direction and Gahirmatha (Marine) Wildlife Sanctuary located at about 7.5 km (NE) from project site. The EAC is of the opinion that ESZ from the project site along with the authenticated map from State Forest Department also mentioning the coordinates of the project site in the certificate shall be presented at the time of EC. The PP reported that the instant proposed project is outside of the notified ESZ.
- ix. The project location falls under severely polluted area as per CPCB and EAC is of the opinion that PP shall include the compliance and Action Plans to the CEPI Guidelines in the EIA/EMP Report.
- x. There are monsoonal ponds are available within the project site. Further, Mahanadi River and Taladanda canal are at a distance of 100 m from the project site area. PP has reported that No Development Zone (NDZ) of 100 m is considered from HTL of Mahanadi River and no plant facilities will be planned in NDZ. The EAC is of the view that NOC/comments of the State Coastal Zone Management Authority shall be obtained. The EAC also noted that on perusal of kml file, it is observed that there is an overlap of project site with CRZ boundary. In view of the same, comments of CRZ division of MoEF&CC may be obtained whether the proposal falls outside the CRZ boundary.
- xi. The project proponent reported that no mangroves are present within project site and the presence of mangroves in the nearby areas will also be demarcated in CRZ mapping.

- xii. The EAC noted that the present elevation of the project site varies from 1 to 4 m above MSL. PP has further reported that the same will be elevated to +4.5m above MSL to avoid flooding. The EAC is of the opinion that the project proponent shall obtain NOC from the irrigation department in pursuance of Ministry's O.M. dated 14.02.2022 pertaining to guidelines for siting industries which are in close proximity with the river. Also, PP shall undertake study by engaging research institutes like NIO/IIT/NEERI to determine the impact of project activities on the river and suggested measures to minimise the impact of same.
- xiii. The water requirement for the proposed project is estimated as 92064 m³/day which is proposed to be met from Taladanda canal which is flowing 0.1 km in southern side w.r.t. project site.

Recommendations of the Committee

25.2.15 After deliberations, the Committee **recommended** the project proposal **subject to uploading the written submission on Parivsh portal** for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**:

- (i) This TOR for preparation of EIA/EMP Report is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- (ii) The PP shall complete the acquisition of the proposed project land and shall submit the credible documents in pursuance to Ministry's O.M. dated 07.10.2014.
- (iii) PP shall submit the Stage-I Forest Clearance for the 11.56 ha forest land involved in the proposed project area at the time of submission of EIA/EMP report.
- (iv) As reported to elevate the project site to +4.5m above MSL to avoid flooding, PP shall include the complete action plan with techno-economics alongwith all the necessary permissions required in the EIA/EMP report. The PP should avoid using river sand for this purpose. PP may explore the use of other material for raising the height.
- (v) Since the project's closeness to the Mahanadi estuarine river bank as well as the sea, the PP shall conduct the impact study on this aspects by recognized Institution upto 2kms of radius from the boundary of the project, taking into the consideration of the above observation. PP shall engage IIT/NIT/NEERI for conducting the specific EIA-EMP study (other than the normal EIA-EMP) of the project and the filling of the Mahandi river bank upto +4.5 m on the riverine and estuarine ecosystems of the Mahanadi river and surrounding ponds/ lakes upto 2 kms of radius from the boundary of the project to the study should also determine the impact of project activities on the river and suggested measures to minimise the impact of project activities.
- (vi) As an end-use, the PP should try to develop a "River front" along the Mahanadi river bank, which shall be of an environmentally value addition, in consultation with institute engaged. As suggested by PP, they will also get an additional study conducted by National Institute of Oceanography on this aspects.

- (vii) Separate chapter on cyclone/ disaster management shall be prepared and included as a separate chapter in the EIA report looking after all environmental aspects and adhere to all guidelines of State as well as central Govt, if any.
- (viii) As reported, the project site inhabits seven hamlets under three revenue villages involving about 491 displaced families to be Rehabilitated and Resettled as per R&R Policy, 2006. Resettlement and Rehabilitation of the PAFs shall be carried out in accordance with the extant provisions of Rules in place and the details shall be furnished in the EIA report as a separate chapter. R&R plan including the Livelihood plan shall be approved from the Competent Authority.
- (ix) There are about 81 villages within the study area of 10 km from the project site. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.
- (x) In pursuance to MoEF&CC OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th August, 2019, the compliance of all the conditions applicable to CEPI shall be included in the EIA/EMP report. Greenbelt shall be planned in 40% of the project area. As committed, 33% shall be completed in the upcoming Monsoon Season of 2023. Allocation for socio economic development of nearby villages shall be 1.5 times of the normal calculated amount.
- (xi) Bhitarkanika Wild life sanctuary is located at a distance of 6.5 km towards NE direction and Gahirmatha (Marine) Wildlife Sanctuary located at about 7.5 km (NE) from project site. PP shall obtain certificate from State Forest Department certifying the ESZ boundary from the project site also mentioning the coordinates of the project site along with the authenticated map.
- (xii) Mahanadi River is at a distance of 100 m from the project site area. PP shall obtain NOC/comments from the State Coastal Zone Management Authority.
- (xiii) The proposed steel plant shall be CRZ compliant. CRZ restrictions shall be followed strictly and the action plan needs to be submit accordingly.
- (xiv) NOC from the irrigation department in pursuance of Ministry's O.M. dated 14.02.2022 shall be obtained.
- (xv) A separate chapter on existence of mangroves, coral reefs, Olive Ridley Turtle nesting/breeding ground and horseshoe crab nesting/breeding ground if any, within the study area of the project site shall be included in the EIA report.
- (xvi) There are monsoonal ponds are available within the project site. Further, Mahanadi River and Taladanda canal are at a distance of 100 m from the project site area. The PP shall include in the EIA/EMP report suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc. A robust and full proof Micro-Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided. Area drainage system shall be prepared to ensure that the ecology of the area is not disturbed.
- (xvii) A Conservation Cell shall be constituted by the project proponent comprising of an Ecologist and a Marine Biologist as part of Environment Management Cell.

- (xviii) Water required of 92064 m³/day shall be met from Taladanda canal. No abstraction of ground water is permitted.
- (xix) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (xx) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. The PP shall formulate a roadmap and implement the principles of 'Circular Economy' and Sustainable development Goals.
- (xxi) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xxii) PP shall submit action plan for rainwater harvesting system.
- (xxiii) Action plan for 100 % solid waste utilization shall be submitted.
- (xxiv) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. The PP shall prepare 3 different drawings. Drawing No 1 should include a layout with Road Networking, Traffic chenalization, All Plant structures, Parking with a detailed area statement for each element, Indexing with proper color code and Naming at Bottom right corner. Drawing No 2 include a layout with road networking, Existing and proposed Green belt with calculations and indexing with proper color code along with nos of trees in existence and proposed trees. Drawing No 3 includes a layout with road networking, contour drawing and drainage disposal system and rain water harvesting system with calculations, Further the disposal of storm drain point with invert level. Drawing include indexing with color code for drainage pipe lines.
- (xxv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xxvi) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.
- (xxvii) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

- (xxviii) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.
- (xxix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xxx) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xxxi) Air Cooled condensers shall be used in the captive power plant.
- (xxxii) A Plan of Action for disposal of e-waste must be drawn up and implemented.
- (xxxiii) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
- (xxxiv) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site shall be submitted.
- (xxxv) Project Proponent should keep track of best environmental practices in steel industry across the globe and try to incorporate those in the project proposal.

Re-Consideration of Environmental Clearance

Agenda No. 25.3

25.3 Expansion of Integrated Cement Plant [Clinker - 4.80 to 8.3 Million TPA; Cement - 4.85 to 8.35 Million TPA and WHRB - 36 MW] by M/s UltraTech Nathdwara Cement Limited (Unit: Nathdwara Cement Works), located at Village: Amli, Tehsil: Pindwara, District: Sirohi, Rajasthan – Re-Consideration of Environmental Clearance.

**[Proposal No: IA/RJ/IND1/414123/2023; File No. IA-J-11011/59/2010-IA-II(IND-I)]
[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid upto 07.08.2023]**

- 25.3.1 M/s. UltraTech Nathdwara Cement Limited has made an online application vide proposal no. IA/RJ/IND1/414123/2023 dated 03.02.2023 along with EIA/EMP report, prescribed format (CAF, Form – I Part A, B & C) and certified compliance report seeking Environment Clearance (EC) under the provisions of EIA Notification, 2006. The proposed project activity is listed at schedule no. 3 (b) Cement Plants & 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level as Category ‘A’.
- 25.3.2 Name of the EIA consultant: M/s. J.M. Environet Pvt. Ltd [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; valid upto 07.08.2023, as on March 23, 2023].

Details submitted by the project proponent

25.3.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
08 th June, 2019	9 th Meeting of EAC held on 30 th July, 2019	Terms of Reference	19 th March, 2020	18 th March, 2024

25.3.4 The project of M/s. UltraTech Nathdwara Cement Limited is located in Village: Amlī, Tehsil: Pindwara, District: Sirohi, Rajasthan state is proposing expansion of Integrated Cement Plant (Clinker - 4.80 to 8.30 Million TPA; Cement - 4.85 to 8.35 Million TPA and WHRB - 36 MW).

25.3.5 Environmental site settings

S. No.	Particulars	Details	Remarks																																							
i.	Total land	Total Plant area is 230.0 ha (including plant and colony); Proposed expansion will be done within the existing plant premises.	Land use: Industrial land																																							
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land is under the possession of the company.	Proposed expansion will be done within the existing plant premises.																																							
iii.	Existence of habitation & involvement of R&R, if any.	<p>Plant Site: No habitation exists within the plant site.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Bilar</td> <td>~1.4</td> <td>WNW</td> </tr> <tr> <td>Malap</td> <td>~1.5</td> <td>SW</td> </tr> <tr> <td>Sadalwa</td> <td>~1.6</td> <td>NE</td> </tr> <tr> <td>Amlī</td> <td>~2.3</td> <td>ENE</td> </tr> <tr> <td>Rajpura</td> <td>~2.5</td> <td>NW</td> </tr> <tr> <td>Kundal</td> <td>~3.0</td> <td>SW</td> </tr> </tbody> </table> <p>There are approx. 38 villages in the study area.</p>	Habitation	Distance (km)	Direction	Bilar	~1.4	WNW	Malap	~1.5	SW	Sadalwa	~1.6	NE	Amlī	~2.3	ENE	Rajpura	~2.5	NW	Kundal	~3.0	SW	R&R is not applicable																		
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		2.	24°50'5.75"N	73° 5'8.20"E																						
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		7.	24°49'45.31"N	73° 5'31.83"E																						
		8.	24°49'25.04"N	73° 4'57.31"E																						
		9.	24°49'27.64"N	73° 4'51.19"E																						
		10.	24°49'26.52"N	73° 4'49.75"E																						
v.	Elevation of the project site	390 m to 452 m above mean sea level.			-																					
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.			-																					
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>Plant site: No water body exists within the plant site.</p> <p>Study area: Following water bodies are falling in the study area</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Bilar Nadi</td> <td>~1.5</td> <td>WNW</td> </tr> <tr> <td>Hagri Nadi</td> <td>~2.5</td> <td>WNW</td> </tr> <tr> <td>Darvot Nadi</td> <td>~4.0</td> <td>SSW</td> </tr> <tr> <td>Gokhli Nadi</td> <td>~5.5</td> <td>West</td> </tr> <tr> <td>Shivnagri ka Nala</td> <td>~5.5</td> <td>North</td> </tr> <tr> <td>Jawai River</td> <td>~6.0</td> <td>NE</td> </tr> </tbody> </table>			Water body	Distance (km)	Direction	Bilar Nadi	~1.5	WNW	Hagri Nadi	~2.5	WNW	Darvot Nadi	~4.0	SSW	Gokhli Nadi	~5.5	West	Shivnagri ka Nala	~5.5	North	Jawai River	~6.0	NE	-
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viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.	<p>Study Area</p> <ul style="list-style-type: none"> No National Park / ESZ / ESA / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area. Therefore, NBWL approval is not applicable. List of Reserved and protected forests: <ul style="list-style-type: none"> Pindwara RF (adjacent in South direction) Bilar Jod RF (0.5 km in WNW direction) Sadalwa Jod RF (2.0 km in NNW direction) Pahad Kalan PF (2.0 km in SE direction) SiveraJod RF (3.0 km in NNW direction) Malnu Protected Forest (4.5 km in NNW direction) Rameshwar PF (6.5 km in South direction) Protected Forest (7.0 km in NNE direction) Darla Jod RF (7.5 km in NW direction) 			-																					

S. No.	Particulars	Details	Remarks
		<ul style="list-style-type: none"> Markundeshwar PF (8.0 km in SSW direction) Janapur RF (9.0 km in SW direction) Reserved Forest (9.5 km in WSW direction) 	

25.3.6 The existing project was accorded environmental clearance *vide* letter no. J-11011/59/2010-IA-II(I) dated 01st May, 2010 and amendment in EC Letter regarding change of fuel mix in the name of M/s. Binani Cement Ltd. dated 14th June, 2013 and the same was transferred to M/s. UltraTech Nathdwara Cement Ltd. *vide* letter no. J-11011/59/2010-IA-II(I) dated 27th Feb., 2020 from MoEFCC, New Delhi. Consent to Operate for the existing unit was accorded by RSPCB *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/714-716 and *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/699-701 which is valid upto 30.09.2024, CTO for CPP Capacity 70 MW accorded *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1411-1413 which is valid upto 31.03.2027 and CTO for D.G. Set of 250 KVA *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1417-1419 which is valid upto 31.03.2027.

25.3.7 Implementation status as per existing EC:

S. No.	Facilities	Units	As per EC dated 01 st May, 2010 amended on 14 th June, 2013 and transferred on 27 th Feb., 2020	Implementation Status as on date	Production as per CTO
1.	Clinker	MTPA	4.8	Implemented	3.80
2.	Cement	MTPA	4.85	Implemented	3.38
3.	Captive Power Plant	MW	70	Implemented	26

25.3.8 The unit configuration and capacity of existing and proposed unit are given as below:

S. No.	Plant Equipment / Facility	Existing Facilities as per EC dated 01 st May, 2010 amended on 14 th June, 2013 and transferred on 27 th Feb., 2020		Proposed Unit		Final (Existing + Proposed)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Clinker	Kiln & Cooler 15,000 TPD	4.8 MTPA	Kiln & Cooler 10000 TPD	3.5 MTPA	Kiln & Cooler 15,000 +10,000 TPD	8.3 MMTPA
2.	Cement	Cement Mill: 590 TPH	4.85 MTPA	Cement Mill: 450 TPH	3.5 MTPA	Cement Mill: 590 + 450 TPH	8.35 MMTPA
3.	CPP	Boiler capacity 184 TPH	70 MW	-	-	Boiler capacity 184 TPH	158.2 MW
4.	WHRB	-	-	36 MW	36 MW	36 MW	36 MW

25.3.9 The details of the raw material requirement for the expansion cum proposed project along with its source and mode of transportation is given as below:

S. No.	Raw Material	Quantity (Million TPA)			Source	Distance	Mode of Transportation
		Existing	Additional	Total			
1.	Limestone	7.274	5.320	12.594	Captive Limestone Mines	1.5 to 3 Km	Covered Conveyor belt
2.	Silica Sand	0.0146	0.175	0.1896	Iswal (Udaipur, Rajasthan)	100 Km	Road
							Road
3.	Red Ochre / Iron Ore	0.0073	0.350	0.3573	Chittorgarh (Rajasthan)	250 Km	Road
4.	Gypsum	0.360	0.263	0.623	Barmer, Nagore, Jaisalmer, Dahej (Gujrat)	235-500 Km	Road
5.	Fly Ash	1.6975	1.225	2.923	Barmer (Rajasthan), Gandhinagar (Gujrat)	230 - 250 Km	Road
6.	High grade Limestone / Marble Khanda	-	0.189	0.189	Nagaur, Jaisalmer, Revdar	70 - 500 Km	Road
7.	Feldspar	-	0.013	0.013	Chittorgarh & Sirohi	35 – 250 Km	Road

Fuel Requirement is as below:

S. No.	Fuel	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Proposed	Total		
1.	Petcoke (<i>as feedstock</i>) (Indian / Imported)	0.480	0.35	0.83	Reliance, Jamnagar Nayara, Wadinar (Gujrat) Imported (US & Saudi) via Mundra & Kandla Port	400 - 550 km / Railway / Road
2.	Imported Coal	0.600	0.438	1.0375	Australia, Mozambican, US via Mundra & Kandla Port	200 - 1200 kms, Railway / Road
	Indian Coal				SECL NCL, WCL	
	Lignite				Panadhro (GMDC) / Barmer / Bikaner	

Note: * Alternative Fuel and Alternative Raw Material (Hazardous & Non-Hazardous) will also use as per availability and suitability.

25.3.10 The existing water requirement is 3185 KLD, water requirement is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. Permission for the same has been obtained from CGWA for withdrawal of 4960 KLD vide their letter no. 21-4(28)/WR/CGWA/05-1567 dated 21st Nov., 2008 and the same is being renewed from time to time. The water requirement for the proposed expansion is estimated as 1050 KLD and will be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir. No additional permission for groundwater withdrawal will be required.

25.3.11 Existing power requirement of 55 MW is obtained from CPP and Rajasthan State Electricity Board. The Power Requirement for the proposed expansion project is estimated as 35 MW which will be sourced from existing CPP, RSEB Grid and Proposed WHRS

25.3.12 Baseline Environmental Studies

Period	Summer Season (March to May, 2022)
AAQ parameters at 09 locations (Min and Max)	<ul style="list-style-type: none"> • PM_{2.5} - 26.9 to 52.0 µg/m³ • PM₁₀ - 55.9 to 90.9 µg/m³ • SO₂ - 6.3 to 17.9 µg/m³ • NO_x - 14.0 to 31.5 µg/m³ • CO - 0.5 to 1.51 mg/m³
Incremental GLC level	<ul style="list-style-type: none"> • PM - 1.0 µg/m³ (Level at ~995 m in East Direction) • SO₂ - 0.546 µg/m³ (Level at ~995 m in East Direction) • NO_x - 0.576 µg/m³ (Level at ~1900 m in East Direction) • CO - 0.351 mg/m³ (Level at ~2.1 Km in East Direction)
Ground water quality at 08 locations	<ul style="list-style-type: none"> • pH - 7.81 to 8.11 • Total Hardness - 345.23 to 502.13 mg/l • Chlorides - 70.12 to 298.14 mg/l • Fluoride - 1.01 to 1.34 mg/l • Heavy Metals - Iron as Fe: 0.16 to 0.27 mg/l
Surface water quality at 01 locations	<ul style="list-style-type: none"> • pH - 7.49 • DO - 6.9 mg/l • BOD - 3.5 mg/l • COD - 10.1 mg/l
Noise levels (Day and Night)	53.0 to 69.4 Leq dB (A) for day time and 42.3 to 62.4 Leq dB (A) for the night time.
Traffic assessment study findings	<ul style="list-style-type: none"> ✓ Traffic study has been conducted at SH - 62 which is passing from between the plant and colony. ✓ Transportation of raw material, fuel & finished product will be done as per details given below: <ul style="list-style-type: none"> ▪ Silica Sand - 100 % by road ▪ Red Ochre/ Iron Ore - 100 % by road ▪ Gypsum - 100 % by road ▪ Fly Ash - 100 % by road ▪ High grade Limestone/ Marble Khanda - 100 % by road ▪ Feldspar - 100 % by road ▪ Coal - 100 % by road

	<ul style="list-style-type: none"> ▪ Petcoke - 25% by Rail & 75 % by road ▪ Clinker - 67% by Rail & 33 % by road ▪ Cement - 36% by Rail & 64 % by road <p>✓ Existing PCU is 188.1 PCU/hr. on SH - 62 and existing level of service (LOS) is B</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH - 62</td> <td>188.1</td> <td>625*</td> <td>0.30</td> <td>B</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 64-1990 Guidelines.</p> <p>✓ PCU load after proposed project will be 188.1 (Existing) + 85.37 (Additional) PCU/hr. and level of service (LOS) will be C (Considering 100% Transportation by road).</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH - 62</td> <td>188.1 + 85.37 = 273.47</td> <td>625*</td> <td>0.437</td> <td>C</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 64-1990 Guidelines.</p> <p>Conclusion: The level of service will be “C” after including the additional traffic due to the proposed expansion.</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH - 62	188.1	625*	0.30	B	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH - 62	188.1 + 85.37 = 273.47	625*	0.437	C
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SH - 62	188.1 + 85.37 = 273.47	625*	0.437	C																	
Flora and fauna	<p>Total 04 Schedule - I species viz. <i>Felis libyca</i> (Desert Cat), <i>Melursus ursinus</i> (Sloth Bear), <i>Panthera pardus</i> (Common Leopard) and <i>Pavo cristatus</i> (Peafowl) were recorded in the study area as per (IWPA) Indian Wildlife Protection Act, 1972.</p> <p>Wildlife Conservation Plan for above mentioned Schedule - I species has been prepared and in-principal approval for the same has been granted by the Chief Wildlife Warden <i>vide</i> letter dated 17th Nov., 2022.</p>																				

25.3.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity generated			Treatment / Disposal
			Existing	Proposed	Total	
1.	Dust	Cement Plant	398.6 TPD	287.6 TPD	686.2 TPD	Dust collected from various APCEs will be totally recycled into the process.
2.	Fly ash	CPP	90	-	90 TPD	Used in manufacturing of PPC grade cement
3.	STP Sludge	STP	12	8	20 Kg/day	Used as manure for greenbelt development / plantation
4.	Used Oil	Plant Maintenance	58	42	100 TPA	Sold to CPCB authorized recycler / Co-processing in Kiln
	Waste / residue containing oil		29	21	50 TPA	Co-processing in Kiln

S. No.	Type of Waste	Source	Quantity generated			Treatment / Disposal
			Existing	Proposed	Total	
	Contaminated cotton rags or other cleaning materials		15	10	25 TPA	Sold to CPCB authorized recycler
	Empty barrels/containers/ liners		15	10	25 TPA	Sold to CPCB authorized recycler / Co-processing in Kiln
5.	Bottles, Paper, Cans, Textiles, etc.	MSW	80	40	~ 120 Kg / day	Sold to registered recycler.
	Kitchen and canteen/ Green waste		50	30	~ 80 Kg/day	After vermi - compost and utilized as a manure for greenbelt development / plantation.

25.3.14 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers "Rajasthan Patrika" on 21 st Oct., 2021 and "Dainik Navjyoti" on 22 nd Oct., 2021
Date of Public Consultation	24 th Nov., 2021 at 11:00 AM
Venue	Truck Parking Yard at Village: Amli, Tehsil: Pindwara, District: Sirohi
Presiding Officer	Additional District Collector, Sirohi (Rajasthan)
Major issues raised	Employment, Environment, Health, Education, Water, Socio Economic Development, Plantation, etc.

Action plan as per MoEF&CC O.M. dated 30/09/2020

(A) SOCIO-ECONOMIC DEVELOPMENT TO ADDRESS PH ISSUES

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1	Health Related	Organizing medical camps	15 Villages of Pindwara Block	10	15 Villages of Pindwara Block	10	15 Villages of Pindwara Block	10	30
		Initiation of Hamari Sehat Program for mother & neonatal child	3 villages	2	3 villages	2	3 villages	2	6
		Providing health equipment & other infrastructures for hospital	Pindwara CHC/ PHCS	18	Pindwara CHC/ PHCS	18	Pindwara CHC/ PHCS	18	54
		IEC Activities (Information, Education & Communications)	Pindwara	3	Pindwara	3	Pindwara	3	9

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Mobile Medical Unit cum Ambulance to serve nearby villages	Pindwara	27	Pindwara	5	Pindwara	5	37
		Sub Total - 1		60		38		38	136
2	Education Related	Renovation/ infrastructure development of school/college	01 school in each village (Malap & Thandiberi)	40	01 school (Village Pindwara)	30	01 school (Village Varli)	30	100
		Providing furniture and sports material and Renovation of AWCs	04 AWC (Village Amlia & Thandiberi)	10	04 AWC (Village Malap & Amaliya)	10	20 AWC (Village Pindwara & Varli)	40	60
		Improvement in education facility, providing facilities for digital classroom etc. in govt. school	Village Pindwara, Amlia, Thandiberi	16	Village Varli	8	Village Malap	8	32
		Construction / renovation of toilets in schools	03 Nos. (Village Amlia)	15	04 No. (Village Thandebari)	15	07 Nos. (Village Malap & Varli)	20	50
		Setting up of Library	02 Nos. (Village Amlia)	3	02 Nos. (Village Thandiberi)	3	01 Nos. (Village Pindwara)	10	16
		Construction of Class rooms in senior sec. school	Malap	20					20
		Sub Total - 2		104		66		108	278
3	Water Related	Water management work like construction of reservoir, development of rainwater harvesting system etc.	Pindwara Block	60	Pindwara Block	50	Pindwara Block	50	160
		Renovation and Maintenance of existing water conservation structures, deepening / desilting of ponds etc.	Pindwara	25	Village Amlia & Malap	25	Village Thandiberi & Varli	22	72
		Maintenance/renovation of existing tube well, borewell & handpump	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	5	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	5	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	2	12
		Promotion & training on New Irrigation methods such as solar pumps, drip irrigation etc	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	5	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	5	(Village Amlia, Amliya, Thandiberi, Varli, Malap)	2	12
		Assistance in Government Drinking Project / Tap scheme of Jal Jeevan mission	Pindwara Block	20	Pindwara Block	20	Pindwara Block	20	60

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Construction of water troughs for cattles	02 Nos. (Village Amlı)	10	02 Nos. (Village Pindwara)	10	02 Nos. (Village Thandıberi)	10	30
		Arrangement of water tanks	(Villages - 5)	3	(Villages - 5)	3	(Villages - 5)	3	9
		Sub Total - 3		128		118		109	355
4	Socio Economic	Skill Development Center and activities in the area	100 participants (Village Pindwara)	20	100 participants (Village Sadalva)	15	100 participants (Village Amlı)	12	47
		Distribution of High breed seeds and develop Kichan gardan	3 villages	2	3 villages	2	3 villages	1	5
		Construction of entry gate	Village Pindwara	25	Amlı	20			45
		Training to farmers for new agricultural technology	150 Nos. farmers (Village Pindwara & Amlı)	10	50 Nos. Participants (Village Thandıberi & Amlıya)	10	50 Nos. Participants (Village Malap & Varlı)	10	30
		Provision of facilities like drinking water storage etc in government school & Aganwadi	Village Thandıberi	10	Village Amlı	10	Village Malap	10	30
		Road repair and Levelling work	1 km (Village Sadalva)	25	1 km (Village Thandıberi)	25	1 km (Village Amlı & Varlı)	25	75
		Installation of street lights	300 Nos. (Village Amlı)	16	150 Nos. (Village Thandıberi)	8			24
		Installation of solar lights	50 Nos. (Village Ballı)	10	30 Nos. (Village Amlı)	8	30 Nos. (Village Pindwara)	8	26
		Road widening work	3km (Village Amlı)	35	3 km (Village Thandıberi)	35	3 km (Village Malap)	35	105
		Construction/renovation of cowshed	01 Nos. (Village Pindwara)	200	01 Nos. (Village Pindwara)	40			240
		Distribution of toys in Aganwadi & infrastructure development	02 AWC (Village Kundal & Varlı)	8	02 AWC (Village Thandıberi)	8	02 AWC (Village Pindwara)	8	24
		Levelling of sports ground in school	Village Thandıberi	20	Village Amlı	10	Village Pindwara	10	40
		Celebration of Social Events	Pindwara	10	Pindwara	10	Pindwara	10	30
				Sub Total - 4		391		201	
5	Plantation	Plantation in nearby area (Road Side)	Pindwara Block	350	Pindwara Block	50	Pindwara Block	50	450

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Sub Total - 5		350		50		50	450
6	Others	Construction of shed for cremation site	01 Village Amla	15					15
		Support to social welfare schement as suggested by District Administration	Sirohi	15	Sirohi	15	Sirohi	15	45
		Sub Total - 6		30		15		15	60
GRAND TOTAL				1063		488		449	2000

(B) VILLAGE ADOPTION PROGRAMME

According to the need base assessment survey, 06 nearby villages namely Amla, Bilar, Jharoli, Reliya, Pindwara and Sadalwa have been undertaken for Village adoption programs for which Rs. 1.0 Crores has been allocated by the company for basic amenities

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1.	Skill Development	Providing coaching for competitive examinations & civil services	01 Centre / for every 2 villages	2	01 Centre / for every 2 villages	2	01 Centre / for every 2 villages	2	6
		Providing Trainings to farmers regarding New Technologies & Techniques in Irrigation, conservation of water & Soil, etc	Covering all 6 villages	0.5	Covering all 6 villages	0.5	Covering all 6 villages	0.5	1.5
		Spoken English course in that locality with the help of a graduate teacher in English	Covering all 6 villages	0.5	Covering all 6 villages	0.5	Covering all 6 villages	0.5	1.5
2.	Rural Infrastructure	Provision of Solar Panels in the Government / Municipal / other public schools, hospitals and Dispensaries in nearby villages	20 / Covering all 6 villages	1	20 / Covering all 6 villages	1	20 / Covering all 6 villages	1	3
		Installation of CCTV cameras for security purpose at places of major gatherings	10 / Village Amla & Bilar	0.5	10 / Village Jharoli & Reliya	0.5	10 / Village Pindwara & Sadalwa	0.5	1.5
		Installation of dustbins at schools, parks, hospitals & other places of worship & community centers	20 / Village Amla & Bilar	0.3	20 / Village Jharoli & Reliya	0.3	20 / Village Pindwara & Sadalwa	0.3	0.9
		Widening & maintenance of Rural Pathways	Village Amla & Bilar	10	Village Jharoli & Reliya	10	Village Sadalwa & Pindwara	10	30

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1st Year		2nd Year		3rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Construction of computer centers	1 Centre with capacity of 30 systems / Village Amla & Bilar	5	1 Centre with capacity of 30 systems / Village Jharoli & Reliya	5	1 Centre with capacity of 30 systems / Village Sadalwa & Pindwara	5	15
		Construction of Public Libraries with reading room	02 / Village Amla & Bilar	1	02 / Village Jharoli & Reliya	1	02 / Village Sadalwa & Pindwara	1	3
3.	Water Conservation	Construction of Rainwater & roof-top Harvesting Structures	3 / Village Amla & Bilar	2	03 / Village Jharoli & Reliya	2	2 / Village Pindwara & Sadalwa	2	6
4.	Safe Drinking Water	Installation of RO filters in the Government / Municipal / other public schools, hospitals and Dispensaries in nearby villages	03 / Covering all 6 villages	2	03 / Covering all 6 villages	2	03 / Covering all 6 villages	2	6
5.	Education	Development of Smart classes/ e-classrooms for quality education	02 / Village Amla & Bilar	7	02 / Village Jharoli & Reliya	7	02 / Village Pindwara & Sadalwa	7	21
		Providing Sports Kit to schools (cricket kit / Table Tennis / basketball / badminton kit etc)	4 / Covering all 6 villages	0.3	4 / Covering all 6 villages	0.3	4 / Covering all 6 villages	0.3	0.9
6.	Health sanitation and	Construction of dispensary Centre and providing first aid kits in schools & community centers	4 / Village Amla & Bilar	1	4 / Village Jharoli & Reliya	1	4 / Village Pindwara & Sadalwa	1	3
		Installation of various public boards & posters to create awareness regarding communicable diseases & public hygiene	5 / Covering all 6 villages	0.2	5 / Covering all 6 villages	0.2	5 / Covering all 6 villages	0.2	0.6
Total				33.3		33.3		33.3	99.9
Grand Total									~ 100 lacs

25.3.15 The existing capital cost of the project was Rs. 2,019 Crores. The capital cost of the proposed expansion project is Rs. 1250 Crores and the capital cost for Environmental Protection Measures is proposed as Rs. 125 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 6.4 Crores. The employment generation from the expansion project is about 200 persons. The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Cost (Rs. in Crores)	
		Capital Cost	Recurring Cost
i.	Air Pollution Control & House Keeping measures	121	5.2

S. No.	Description of Item	Cost (Rs. in Crores)	
		Capital Cost	Recurring Cost
ii.	Water Pollution Control and Rain Water Harvesting Measures	1.5	0.5
iii.	Noise Pollution Control	0.5	0.1
iv.	Environment monitoring and management	0.5	0.1
v.	Greenbelt Development	1.5	0.5
Total		125	6.4

25.3.16 Existing greenbelt has been developed in 86.8 ha area which is about 38 % of the total project area of 230 ha with total saplings of 99,230 trees. Proposed greenbelt will be developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt. A 10 - 15 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1,65,270 saplings will be planted and nurtured in 105.8 ha in 03 years. The greenbelt plan considering the maximum plantation within 1st year is given below -

S. No	Year Wise	Area	Sapling / ha	No. of saplings
1.	2023 - 24	12.0 ha	2500	30,000
2.	2024 - 25	4.0 ha	2500	10,000
3.	2025 - 26	3.0 ha	2500	7,500
Total		19.0 ha	2500	47,500

Gap Filling with 2500 saplings / ha in the existing greenbelt / plantation will also be done. Therefore, total 1,17,770 saplings for gap filling have been proposed to be planted till 2026. Apart from that, remaining 7% plantation will be done in degraded Pindwara RF towards the plant boundary in consultation with CAZRI and DFO. Also, company is proposing the greenbelt development/ plantation on both side of the road connecting Plant to Amli Village and Pindwara town wherever feasible, which will be completed by Aug., 2023.

25.3.17 It is submitted that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified Compliance Report from Regional Office

25.3.18 The status of compliance of earlier EC was obtained from Integrated Regional Office, Jaipur vide letter no. IV/ENV/R/IND-58/431/2006 dated 3rd Jan., 2023, in the name of M/s. UltraTech Nathdwara Cement Ltd. All the conditions stipulated in the EC were complied.

25.3.19 The proposal was initially considered in the 23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2022 wherein the Committee deferred the proposal on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 14-15th February, 2022)

25.3.20 The Committee noted the following:

1. The EAC noted that the existing water requirement is 3185 KLD which is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. The water requirement for the proposed expansion is estimated as 1050 KLD which will also be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir. The EAC is of the opinion that PP shall submit water conservation measures to balance out the ground water usage.
2. The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
3. The EAC noted that as reported existing greenbelt has been developed in 86.8 ha area which is about 38% of the total project area of 230 ha with total saplings of 99,230 trees which comes out to be 1143 plants/ha. Further, proposed greenbelt has been planned to developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt with total no. of 1,65,270 saplings in 03 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.
4. The EAC also opined that PP shall explore the possibility of assisting State Forest Department in afforestation jobs in adjoining degraded forest land around the project site so as to meet the target of 53% green belt as per TOR. PP shall carry out a meeting with State Forest Department officials and shall prepare a roadmap for taking afforestation jobs. In this regard, a compliance need to be submitted.
5. The PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted. PP shall also undertake plantation activities along the village roads.
6. Bilar Nadi (1.5 km, WNW), Hagri Nadi (2.5 km, WNW), Darvot Nadi (4.0 km, SSW), Gokhli Nadi (5.5 km, West), Shivnagri ka Nala (5.5 km, North), and Jawai River (6.0 km, NE) exists within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.
7. The nearest habitation to plant are Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), Amla (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW). There are approx. 38 villages in the study area. Project Proponent shall submit

environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.

8. There is a school at a distance of approx. 600 m from the project site. PP shall environmental safeguard measures that will be undertaken to minimise the impact due to the project.
9. The EAC noted that Pindwara RF is adjacent to the project site in the South direction. PP shall environmental safeguard measures that will be undertaken to minimise the impact due to the project.
10. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised, to be more quantitative and shall be submitted as per Ministry's OM dated 30.09.2020.
11. The EAC deliberated on the employment provided under the existing project and is of the view that the wages to the workers may not be in line with the labour laws. Also, PP shall explore the possibility to provide direct/indirect employment to tribals of the area.
12. The EAC is of the opinion that PP shall also submit the status of implementation of the action plan submitted in order to address the issues raised during the previous PH.
13. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.
14. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee (EAC during 14-15th February, 2022)

25.3.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 25.3.20 above. The proposal may be considered after submission of the requisite information.

25.3.22 The proponent submitted the ADS reply vide letter dated 5th March, 2023 uploaded on PARIVESH on 6th March, 2023. Point-wise reply of ADS is given below:

S. No.	ADS Point	Reply / Response of PP
i.	The EAC noted that the existing water requirement is 3185 KLD which is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. The water requirement for the proposed expansion is estimated as 1050 KLD which will also be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir.	The existing water requirement of the plant is 3185 KLD; which is being sourced from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. Presently, there are 36 structures in and surrounding area for Rain Water Harvesting having a recharge capacity of around 2.0 MCM. Additional water requirement will be 1050 KLD; which will be sourced from Ground Water (1050 KLD).

S. No.	ADS Point	Reply / Response of PP																									
	The EAC is of the opinion that PP shall submit water conservation measures to balance out the ground water usage.	In compliance of Specific ToR Point No. (i), the company is proposing rain water harvesting and its monitoring to the tune of 3537640 cub m/annum in the plant and both the mines. The large storage cum recharge pond (unlined) is proposed to be constructed based on slope/gradient of area. Few recharge shafts/injection wells may also be constructed in pond bed to facilitate additional recharge to sub-surface aquifer. The stored water may be recharged to groundwater including natural percolation and induced recharge. Excess water may be utilized for greenbelt development. Also, water will be stored in the two proposed water reservoirs in the mine sumps.																									
ii.	The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.	A contour map showing drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge is submitted.																									
iii.	The EAC noted that as reported existing greenbelt has been developed in 86.8 ha area which is about 38% of the total project area of 230 ha with total saplings of 99,230 trees which comes out to be 1143 plants/ha. Further, proposed greenbelt has been planned to developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt with total no. of 1,65,270 saplings in 03 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1 st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.	<p>Out of the total plant and colony area of 230 ha, Greenbelt/plantation has already been developed in 86.8 ha i.e., 38 % of the total plant area. Further, company has proposed to develop greenbelt / plantation in additional 19 ha which is about 8% of the total plant area. Thus, a total of 105.8 ha (i.e., 46% of the total plant area) will be developed under greenbelt/ plantation within the plant premises. The greenbelt plan considering the maximum plantation within 1st year is given below –</p> <table border="1"> <thead> <tr> <th>S. No</th> <th>Year Wise</th> <th>Area</th> <th>Sapling / ha</th> <th>No. of saplings</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>2023 - 24</td> <td>12.0 ha</td> <td>2500</td> <td>30,000</td> </tr> <tr> <td>2.</td> <td>2024 - 25</td> <td>4.0 ha</td> <td>2500</td> <td>10,000</td> </tr> <tr> <td>3.</td> <td>2025 - 26</td> <td>3.0 ha</td> <td>2500</td> <td>7,500</td> </tr> <tr> <td colspan="2">Total</td> <td>19.0 ha</td> <td>2500</td> <td>47,500</td> </tr> </tbody> </table> <p>Gap Filling with 2500 saplings / ha in the existing greenbelt / plantation will also be done. Therefore, total 1,17,770</p>	S. No	Year Wise	Area	Sapling / ha	No. of saplings	1.	2023 - 24	12.0 ha	2500	30,000	2.	2024 - 25	4.0 ha	2500	10,000	3.	2025 - 26	3.0 ha	2500	7,500	Total		19.0 ha	2500	47,500
S. No	Year Wise	Area	Sapling / ha	No. of saplings																							
1.	2023 - 24	12.0 ha	2500	30,000																							
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S. No.	ADS Point	Reply / Response of PP
		<p>saplings for gap filling have been proposed to be planted till 2026.</p> <p>Apart from that, remaining 7% plantation will be done in degraded Pindwara RF towards the plant boundary in consultation with CAZRI and DFO.</p> <p>Also, company is proposing the greenbelt development/ plantation on both side of the road connecting Plant to Amlı Village and Pindwara town wherever feasible, which will be completed by Aug., 2023.</p> <p>Undertaking dated 17.02.2023 in this regard has been submitted.</p> <p>The same is updated at para 25.3.16 above.</p>
iv.	<p>The EAC also opined that PP shall explore the possibility of assisting State Forest Department in afforestation jobs in adjoining degraded forest land around the project site so as to meet the target of 53% green belt as per TOR. PP shall carry out a meeting with State Forest Department officials and shall prepare a roadmap for taking afforestation jobs. In this regard, a compliance needs to be submitted.</p>	<p>As per the recommendations of the Hon'ble Committee to meet the target of 53% greenbelt as per ToR, out of the total plant & colony area of 230 ha, Greenbelt/ plantation has already been developed in 86.8 ha i.e., 38 % of the total plant area.</p> <p>Further, company has proposed development of greenbelt/ plantation in additional 19 ha which is about 8% of the total plant area. Thus, a total of 105.8 ha (46% of the total plant area) will be developed under greenbelt within the plant premises.</p> <p>Apart from that, remaining 7% (out of 53%) plantation will be done in degraded Pindwara RF towards the plant boundary in consultation with CAZRI and DFO.</p> <p>Undertaking dated 17.02.2023 in this regard has been submitted.</p>
v.	<p>The PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted. PP shall also undertake plantation activities along the village roads.</p>	<p>According to the need base assessment survey, 06 nearby villages have been undertaken for Village adoption programs for which Rs. 1.0 Crores has been allocated by the company for basic amenities.</p> <ol style="list-style-type: none"> 1. Amlı, 2. Bilar, 3. Jharoli, 4. Reliya, 5. Pindwara & 6. Sadalwa <p>Along with this, Company has proposed Socio-economic development plan of Rs. 20 Crores for the nearby villages (including the 6 villages for which model village development plan has been proposed).</p>

S. No.	ADS Point	Reply / Response of PP
		<p>Plantation activities along the village roads will be carried out under Socio-economic developmental activities.</p> <p>The Socio-economic development plan along with village adoption plan with detailed activities and timeline is submitted. The same are updated at para 25.3.14 above.</p>
vi.	<p>Bilar Nadi (1.5 km, WNW), Hagri Nadi (2.5 km, WNW), Darvot Nadi (4.0 km, SSW), Gokhli Nadi (5.5 km, West), Shivnagri ka Nala (5.5 km, North), and Jawai River (6.0 km, NE) exists within 10 km radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.</p>	<p>There are 06 rivers present in the study area; which are seasonal in nature and do not contain water throughout the year.</p> <ol style="list-style-type: none"> 1. Bilar Nadi is 1.5 Km from the plant site, 2. Hagri Nadi is 2.5 Km from the plant site, 3. Darvot Nadi is 4.0 Km from the plant site, 4. Gokhli Nadi is 5.5 Km from the plant site, 5. Shivnagri ka nala is 5.5 Km from the plant site and 6. Jawai river which is 6.0 Km from the plant site. <p><i>Conservation Plan for river/nallas and natural drainage:</i></p> <ul style="list-style-type: none"> • The entire process of cement manufacturing is based on dry process technology hence, Zero Liquid Discharge (ZLD) is being/ will be maintained. So, there will be no impact on the nearby water bodies and natural drainage systems. • Other than that, Spillage of fuel /waste oil and lubricant from the plant site will be prevented by proper handling in leak proof containers. Covered storages will be provided so that the materials remain unaffected during rainfall. • The rainfall runoff within the plant site will be securely diverted to the drains which will lead to groundwater recharge/ rainwater harvesting. <p><i>Conservation scheme for soil:</i></p> <ul style="list-style-type: none"> • Vetiver grass will be grown on road partitions and over slope areas to strengthen the loose soil layer which in turn will help retain more water within the soil which will help in better vegetation, it also helps to hold the soil there by reducing soil erosion and it can also be used for the production of manure. • Study of analysis of soil erosion and environmental factors such as determination of erodibility factors, calculation of the erosion threshold and Verification of the erosion threshold will be done and report will be submitted to the MoEFCC along with Half Yearly EC Compliance.

S. No.	ADS Point	Reply / Response of PP
vii.	<p>The nearest habitation to plant are Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), Amla (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW). There are approx. 38 villages in the study area. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.</p>	<p>Environmental safeguard measures that will be undertaken to minimize the impact on the habitation of the locals is given as below:</p> <ul style="list-style-type: none"> • State of Art Air Pollution Control Equipment (APCE) like Bag House (9 Nos.) / Bag Filter (130 Nos) / ESP (3 Nos.) has been / will be installed and the dust collected in the Bag filters is being / will be totally recycled back into the process. • tier Greenbelt development/ plantation along the plant boundary will be maximized towards the village side in order to suppress the dust or fugitive emissions generated from the plant. • Transportation of raw material and finished products will be done by closed trucks and bulkers and only PUC certified vehicles will be used. • Plantation in the nearby village roads will be carried out to minimize the dust and noise generated due to the movement of plant vehicles. • In order to curb the Noise pollution, proper oiling and greasing of the machines is being/ will be done from time to time. • Further, to improve the living standards and livelihood conditions, UTNCL has taken / will take an initiative as a part of Socio-economic developmental activities by conducting various programmes and capacity building training. • On the basis of the need base assessment survey, 06 villages have been identified for the village adoption plan. Various developmental work will be carried out for the betterment of the villagers. • Company has allocated Rs. 1.0 Crore for basic amenities of the villages and Rs. 20 Crores for Socio Economic Development of the nearby area.
viii.	<p>There is a school at a distance of approx. 600 m from the project site. PP shall environmental safeguard measures that will be undertaken to minimise the impact due to the project.</p>	<p>A Primary school is located at a distance of 600 m from the plant boundary and ~1 km from the main stack of plant in the SE direction.</p> <p>Mitigation measures to be undertaken to minimize the impact due to the project on school is given as below:</p> <ul style="list-style-type: none"> • Wind shield/ Green cover around 250 m in length and 06 m in height will be provided towards the direction of school.

S. No.	ADS Point	Reply / Response of PP
		<ul style="list-style-type: none"> Plantation will be developed in and around the school periphery in appropriate width as per available space to mitigate the impacts of the plant activities.
ix.	<p>The EAC noted that Pindwara RF is adjacent to the project site in the South direction. PP shall environmental safeguard measures that will be undertaken to minimize the impact due to the project.</p>	<p>Company has proposed plantation in 7% (i.e.,16 ha) of the plant area (i.e., 230 ha) in degraded Pindwara RF all along the plant boundary in consultation with CAZRI and DFO. Also, environmental safeguard measures that will be undertaken to minimize the impact on adjoining forest due to the project is given as below:</p> <ul style="list-style-type: none"> Installation of Efficient Air Pollution Control Equipment (APCE) like Bag House (9 Nos.) / Bag Filter (130 Nos) / ESP (3 Nos.). Point source emission from stack, fugitive emission and noise generation is being / will be minimized by proper maintenance of the existing air pollution control devices. Greenbelt/plantation will be maximised towards the plant boundary and 15 to 30 m width is being / will be maintained and native species like Aam, Ashok, Karanj etc. have been/ will be planted. Awareness programmes to educate the labourers, drivers and workers of the plant about the forest significance and its protection measures. The project proponent shall ensure that no labour trespasses inside the forest. For this proper boundary wall has been provided around the plant boundary and a 20m entry zone has been constructed around the plant. All the trucks carrying raw materials or finished products are being / will be covered with tarpaulin. Workers residing in the plant area will not depend on the fuel-wood or forest products from forest. Alternative sources are being / will be provided to them like bio fuels are being used in plant canteen etc.
x.	<p>The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised, to be more quantitative and shall be</p>	<p>The Socio-economic development plan has been revised with physical targets based on Public Hearing issues and allocated Rs. 20 Crores for the same. Revised Socio-economic development plan is submitted asnd updated at para 25.3.14 above.</p>

S. No.	ADS Point	Reply / Response of PP																				
	submitted as per Ministry's OM dated 30.09.2020.																					
xi.	The EAC deliberated on the employment provided under the existing project and is of the view that the wages to the workers may not be in line with the labour laws. Also, PP shall explore the possibility to provide direct/indirect employment to tribal of the area.	<p>Company is paying the wages as per the State Govt. applicable rules and wage settlement agreement with registered unions along with statutory benefits PF, ESIC, Bonus, Gratuity & Leave encashment etc. Therefore, there is no deviation in compliance. Company will explore the possibility to provide direct/indirect employment to tribal of the area. Details of the daily wages are given as below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Category</th> <th>Daily wage as per notification issued by State Government, Rajasthan dated 28.06.2022</th> <th>Daily wages given to labor as per UltraTech Cement Limited</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Unskilled labour</td> <td>259 Rs. / Day</td> <td>349 Rs. / Day</td> </tr> <tr> <td>2.</td> <td>Semi-skilled labour</td> <td>271 Rs. / Day</td> <td>401 Rs. / Day</td> </tr> <tr> <td>3.</td> <td>Skilled labour</td> <td>283 Rs. / Day</td> <td>453 Rs. / Day</td> </tr> <tr> <td>4.</td> <td>Highly skilled labour</td> <td>333 Rs. / Day</td> <td>543 Rs. / Day</td> </tr> </tbody> </table>	S. No.	Category	Daily wage as per notification issued by State Government, Rajasthan dated 28.06.2022	Daily wages given to labor as per UltraTech Cement Limited	1.	Unskilled labour	259 Rs. / Day	349 Rs. / Day	2.	Semi-skilled labour	271 Rs. / Day	401 Rs. / Day	3.	Skilled labour	283 Rs. / Day	453 Rs. / Day	4.	Highly skilled labour	333 Rs. / Day	543 Rs. / Day
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xii.	The EAC is of the opinion that PP shall also submit the status of implementation of the action plan submitted in order to address the issues raised during the previous PH.	The earlier Public Hearing was conducted on 12 th Dec., 2005 for Cement Plant Unit - 2 & CPP - 25 MW, Amla Lime Stone Mine and Thandiberi Lime Stone Mine by M/s. Binani Cement Ltd. All the issues of the PH have already been addressed. In 2018, M/s. UTNCL took over of the plant of Binani Cement Limited. The company is doing CSR activities under various heads i.e., Education Health & Sanitation, Infrastructure Development, Sustainable Development and Social Development. The company has spent Rs. 251.65 Lacs since March, 2019 to Dec., 2022. Details of the same is submitted.																				
xiii.	In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.	As per the EAC recommendations, EIA/EMP report has been revised covering all the desired information for further consideration.																				
xiv.	The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.	Noted.																				

25.3.23 Based on the above submission of PP, the proposal was reconsidered during 25th meeting of the EAC for Industry-I sector held on 21st-23rd March, 2023. The deliberations and recommendations of EAC are as follows:

Deliberations by the Committee

25.3.24 The Committee noted the following:

1. The instant proposal is for expansion of Integrated Cement Plant (Clinker - 4.80 to 8.30 Million TPA; Cement - 4.85 to 8.35 Million TPA and WHRB - 36 MW).
2. The existing project was accorded environmental clearance *vide* letter no. J-11011/59/2010-IA-II(I) dated 01st May, 2010 and amendment in EC Letter regarding change of fuel mix in the name of M/s. Binani Cement Ltd. dated 14th June, 2013 and the same was transferred to M/s. UltraTech Nathdwara Cement Ltd. *vide* letter no. J-11011/59/2010-IA-II(I) dated 27th Feb., 2020 from MoEFCC, New Delhi. Consent to Operate for the existing unit was accorded by RSPCB *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/714-716 and *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/699-701 which is valid upto 30.09.2024, CTO for CPP Capacity 70 MW accorded *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1411-1413 which is valid upto 31.03.2027 and CTO for D.G. Set of 250 KVA *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1417-1419 which is valid upto 31.03.2027.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. Total land required for the project is 230 ha which is under the possession of the company and is industrial land. Proposed expansion will be done within the existing plant premises.
7. The nearest habitation to plant are Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), Amla (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW). There are approx. 38 villages in the study area. The EAC is of the opinion that PP shall

strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.

8. There is a school at a distance of approx. 600 m from the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact due to the project.
9. The EAC noted that Pindwara RF is adjacent to the project site in the South direction and is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact due to the project.
10. Bilar Nadi (1.5 km, WNW), Hagri Nadi (2.5 km, WNW), Darvot Nadi (4.0 km, SSW), Gokhli Nadi (5.5 km, West), Shivanagri ka Nala (5.5 km, North), and Jawai River (6.0 km, NE) exists within 10 Km. radius of the plant site. The EAC is of the opinion that as submitted a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
11. The existing water requirement is 3185 KLD which is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. The water requirement for the proposed expansion is estimated as 1050 KLD which is also proposed to be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir.
12. The existing greenbelt has been developed in 86.8 ha area which is about 38% of the total project area of 230 ha with total saplings of 99,230 trees which comes out to be 1143 plants/ha. Further, proposed greenbelt has been planned to developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt with total no. of 1,65,270 saplings in 03 years. Gap Filling with 2500 saplings / ha in the existing greenbelt / plantation will also be done. Therefore, total 1,17,770 saplings for gap filling have been proposed to be planted till 2026. Apart from that, remaining 7% plantation will be done in degraded Pindwara RF towards the plant boundary in consultation with CAZRI and DFO. The committee deliberated on the revised greenbelt development plan and is of the opinion that gap filling shall be undertaken and greenbelt development shall be completed by 2023-24 in consultation with institutes like Arid Forest Research Institute, Jodhpur.
13. The EAC noted that 04 Schedule - I species viz. *Felis libyca* (Desert Cat), *Melursus ursinus* (Sloth Bear), *Panthera pardus* (Common Leopard) and *Pavo cristatus* (Peafowl) were recorded in the study area as per (IWPA) Indian Wildlife Protection Act, 1972 for which Wildlife Conservation Plan has been prepared and in-principal approval for the same has been granted by the Chief Wildlife Warden vide letter dated 17th November, 2022.
14. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
15. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory
16. The EAC deliberated on the status of implementation of the action plan submitted in order to address the issues raised during the previous PH and found it satisfactory.

17. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing along with the villae adoption programme and found it satisfactory.
18. The Committee deliberated upon the reply of the ADS submitted by project proponent and found it satisfactory.
19. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
20. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

25.3.25 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific conditions:

- (i) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- (ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iv) The nearest habitation to plant are Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), Amla (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW). There are approx. 38 villages in the study area. Project Proponent shall implement appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

- (v) There is a school at a distance of approx. 600 m from the project site. Also, Pindwara RF is adjacent to the project site in the South direction. PP shall strictly implement the environmental safeguard measures proposed to minimise the impact due to the project on these ESA's.
- (vi) As committed, PP shall adopt six nearby villages namely AMLi, Bilar, Jharoli, Reliya, Pindwara and Sadalwa and implement Village Adoption program consisting of need-based community development activities, to develop them into model villages.
- (vii) The water requirement for the proposed project 3185 KLD (existing) and 1050 KLD (proposed expansion), shall be sourced from Ground water and rain water stored in mine pit of captive mines and plant reservoir. Necessary permissions shall be obtained from the Competent Authority in this regard.
- (viii) Three tier Green Belt shall be developed covering at least 53% of the total project area to be completed by 2023-24 as per the submitted plan with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha.
 - a. Gap filling shall be undertaken and greenbelt development shall be undertaken in consultation with institutes like Arid Forest Research Institute, Jodhpur.
 - b. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
 - c. As committed, 7% plantation shall be done in degraded Pindwara RF towards the plant boundary in consultation with CAZRI and DFO.
 - d. Also, as committed greenbelt development/ plantation on both side of the road connecting Plant to AmlI Village and Pindwara town wherever feasible, which shall be completed by Aug., 2023.
 - e. Plantation shall be developed in and around the school periphery in appropriate width as per available space to mitigate the impacts of the plant activities.
 - f. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards the villages namely Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), AmlI (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW) within the plant premises.
 - g. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (ix) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- (x) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- (xi) The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

- (xii) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- (xiii) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.
- (xiv) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.
- (xv) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
- (xvi) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- (xvii) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm³ by using best available technology.
- (xviii) Petcoke dosing shall be controlled automatically to control SO₂ emission from chimney within the prescribed limits.
- (xix) PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.
- (xx) Air Cooled condensers shall be used in the captive power plant.
- (xxi) During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.
- (xxii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- (xxiii) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
- (xxiv) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- (xxv) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- (xxvi) The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- (xxvii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has

issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

- (xxviii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement); as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring

of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall regularly monitor ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i. Waste heat recovery system shall be provided for kiln and cooler.
- ii. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

- i. Used refractories shall be recycled as far as possible.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
- ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt villages based on the socio-economic

- survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
 - iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

- ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration of Modification in Terms of Reference Proposal

Agenda No. 25.4

25.4 Expansion of existing Tube Mill from 120,000 TPA to 2,40,000 TPA, and establishment of DRI Kilns to produce Sponge Iron of 4,26,000 TPA, Induction Furnaces along with CCM & LRF to produce Hot Billets /Billets/Ingots of 4,00,000 TPA, Rolling Mill along with Reheating Furnace to produce TMT/Strip/Structure of 3,60,000 TPA (through 85% Hot Charging with Hot Billets & 15% through RHF), Wire Mill to 6,000 TPA, Galvanization Plant of capacity of 72,000 TPA, Power generation through WHRB of 32 MW, through FBC of 14 MW & Fly Ash Brick making unit to produce 32,200 bricks/day] by M/s Indoves Industrial Pvt. Ltd., located at Village Jamgaon, Tehsil & District Raigarh, Chhattisgarh.– Consideration of Modification in TOR.

**[Proposal No. IA/CG/IND/297632/2023; File No. IA-J-11011/75/2022-IA-II(IND-I)]
[Consultant: Pioneer Enviro Consultants Pvt Ltd.]**

25.4.1 M/s. Indoves Industrial Pvt. Ltd. has made an online application vide proposal no. IA/CG/IND/297632/2023 dated 04.03.2023 along with Form-3 and revised PFR and sought for amendment in Standard Terms of Reference accorded by the Ministry vide no. IA-J-11011/75/2022-IA-II(IND-I) dated 30.07.2022 w.r.t. changes in the capacity of existing and proposed tube mills without change in the ultimate production capacity.

Details submitted by Project proponent

- 25.4.2 M/s. Indoves Industrial Pvt. Ltd. had earlier applied for Terms of Reference vide proposal no. IA/CG/IND/274558/2022 dated 27.07.2022 for Expansion of existing Tube/Pipe Mill from 29,000 TPA to 2,11,000 TPA, and establishment of DRI Kilns to produce Sponge Iron of 4,26,000 TPA, Induction Furnaces along with CCM & LRF to produce Hot Billets/Billets/Ingots of 4,00,000 TPA, Rolling Mill along with Reheating Furnace to produce TMT/Strip/Structure of 3,60,000 TPA (through 85% Hot Charging with Hot Billets & 15% through RHF), Wire Mill to 6,000 TPA, Galvanization Plant of capacity of 72,000 TPA, Power generation through WHRB of 32 MW, through FBC of 14 MW & Fly Ash Brick making unit to produce 32,200 bricks/day located at Village Jamgaon, District Tehsil & Raigarh, Chhattisgarh. Accordingly, Standard ToR was granted by the Ministry vide no. IA-J-11011/ 75/2022-IA-II(IND-I) dated 30.07.2022
- 25.4.3 The instant proposal is for seeking amendment in ToR dated 30.07.2022 w.r.t. changes in the capacity of existing and proposed tube mills involving increase in production capacity of Existing Tube Mill from 29,000 TPA to 1,20,000 TPA and decrease in production capacity of Proposed Tube Mill from 2,11,000 TPA to 1,20,000 TPA without change in the ultimate production capacity as detailed below.

Unit	As per PFR / ToR dated 30.07.2022	Amendment Sought in the instant proposal	Final capacity after proposed modification	Remarks
Tube Mill (Existing)	29,000 TPA (1x5 TPH)	Increase of production capacity from 29,000 TPA to 1,20,000 TPA (1x5 TPH and 1x15 TPH)	1,20,000 TPA (1x5 TPH and 1x15 TPH)	Total production capacity before and after the proposed modification will remain same i.e. 2,40,000 TPA (1x5 TPH, 1x15 TPH and 1x 20 TPH)
Tube Mill (Proposed)	2,11,000 TPA (1x15 TPH and 1x 20 TPH)	Decrease of production capacity from 2,11,000 TPA to 1,20,000 TPA (1x 20 TPH)	1,20,000 TPA (1x 20 TPH)	

- 25.4.4 There is no change in configuration & capacity of other units in granted ToR.
- 25.4.5 **Reason for Amendment:**
CECB, Govt. of Chhattisgarh has granted CTO in respect of increased capacity of existing Tube Mill of 1,20,000 TPA (29,000 TPA + 91,000 TPA) vide their office order dated 07.02.2023. For the sake of incorporating the present Tube Mill capacity of 1,20,000 TPA (for which CTO has been accorded) and the consequential reduction of Tube Mill under expansion as 1,20,000 TPA in ToR, instant application requesting for amendment of ToR is made to update the actual installed / operational capacity of Tube Mill of 1,20,000 TPA.
- 25.4.6 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

25.4.7 The Committee noted the following:

- i. M/s. Indoves Industrial Pvt. Ltd. had earlier applied for Terms of Reference vide proposal no. IA/CG/IND/274558/2022 dated 27.07.2022 for Expansion of existing Tube/Pipe Mill from 29,000 TPA to 2,11,000 TPA, and establishment of DRI Kilns to produce Sponge Iron of 4,26,000 TPA, Induction Furnaces along with CCM & LRF to produce Hot Billets /Billets/Ingots of 4,00,000 TPA, Rolling Mill along with Reheating Furnace to produce TMT/Strip/Structure of 3,60,000 TPA (through 85% Hot Charging with Hot Billets & 15% through RHF), Wire Mill to 6,000 TPA, Galvanization Plant of capacity of 72,000 TPA, Power generation through WHRB of 32 MW, through FBC of 14 MW & Fly Ash Brick making unit to produce 32,200 bricks/day located at Village Jamgaon, District Tehsil & Raigarh, Chhattisgarh. Accordingly, Standard ToR was granted by the Ministry vide no. IA-J-11011/ 75/2022-IA-II(IND-I) dated 30.07.2022.
- ii. The instant proposal is for seeking amendment in ToR dated 30.07.2022 w.r.t. changes in the capacity of existing and proposed tube mills involving increase in production capacity of Existing Tube Mill from 29,000 TPA to 1,20,000 TPA and decrease in production capacity of Proposed Tube Mill from 2,11,000 TPA to 1,20,000 TPA without change in the ultimate production capacity as detailed in para 25.4.3 above.
- iii. PP has reported that CECB, Govt. of Chhattisgarh has granted CTO in respect of increased capacity of existing Tube Mill of 1,20,000 TPA (29,000 TPA + 91,000 TPA) vide their office order dated 07.02.2023. For the sake of incorporating the present Tube Mill capacity of 1,20,000 TPA (for which CTO has been accorded) and the consequential reduction of Tube Mill under expansion as 1,20,000 TPA in ToR, instant application requesting for amendment of ToR is made to update the actual installed / operational capacity of Tube Mill of 1,20,000 TPA.
- iv. The EAC noted that there is no change in configuration & capacity of other units in granted ToR dated 30.07.2022.

Recommendations of the Committee

25.4.8 After deliberations, the Committee **recommended** the proposal for amendment in ToR granted vide no. IA-J-11011/ 75/2022-IA-II(IND-I) dated 30.07.2022 w.r.t. changes in the capacity of existing and proposed tube mills involving increase in production capacity of Existing Tube Mill from 29,000 TPA to 1,20,000 TPA and decrease in production capacity of Proposed Tube Mill from 2,11,000 TPA to 1,20,000 TPA without change in the ultimate production capacity as detailed in para 25.4.3 above. The other terms and conditions of ToR dated 30.07.2022 will remain the same.

DAY-2: MARCH 22, 2023 [WEDNESDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 25.5

25.5 Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI - 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, CPP (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant by M/s Jindal Steel Odisha Limited (JSOL), located at Villages Basudevpur, Panpur, Kaliakata Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada, Tehsil: Chhendipada & Banarpal, District Angul, Odisha – Re- Consideration of Environmental Clearance.

**[Proposal No.: IA/OR/IND1/406482/2022; File No. J-11011/365/2006-IA.II(I)]
[Consultant: J.M. EnviroNet Pvt. Ltd. ; Valid upto : 07.08.2023]**

- 25.5.1 M/s Jindal Steel Odisha Limited has made an online application vide proposal no. IA/OR/IND1/406482/2022 dated 15th November 2022 along with EIA/EMP report, prescribed format (CAF, Form – I Part A, B & C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 3(b) Cement plants, 4(b) Coke oven plants & 1(d) Thermal Power plant under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 25.5.2 Name of the EIA consultant: M/s. J.M. Environet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; Valid up to 07.08.2023, as on March 23, 2023.
- 25.5.3 The proposal cited above was initially considered during the 21st meeting of the EAC for Industry-I sector held on **16-17th January, 2023**. After detailed deliberation, it was observed that:
1. The instant proposal is for expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill- 1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant.

2. The EAC noted the following w.r.t. the instant proposed project:
- (i) Initially, M/s. Jindal Steel & Power Limited (JSPL) was granted ToR for expansion of Integrated Steel Plant from 6 MTPA liquid steel to 25.2 MTPA liquid steel (24.79 MTPA Crude Steel) and 12.5 MTPA Cement plant located at Village Kerjang, Tehsil Chhendipada, District Angul, Odisha vide letter dated 08/02/2021 with amendments dated 16.06.2021 and 29.11.2021.
 - (ii) M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I) dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.
 - (iii) Further, M/s. JSPL again applied for amendment in ToR dated 08/02/2021 (with amendments dated 16.06.2021 and 29.11.2021) w.r.t. change in land use due to exclusion of the forest land from the TOR and was accorded ToR amendment vide letter dated 15.06.2022.
 - (iv) M/s. JSOL then applied for Transfer of ToR dated 08/02/2021 (with amendments dated 16.06.2021, 29.11.2021 and 15.06.2022) vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022 from M/s. JSPL to M/s. JSOL.
 - (v) Thereafter, M/s Jindal Steel Odisha Limited, vide proposal no. IA/OR/IND/281741/2022, has submitted the TOR proposal for Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2, MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant at Angul Odisha. Accordingly, the Ministry has issued TOR to M/s Jindal Steel Odisha Limited for the above mentioned project on 07.07.2022.
 - (vi) In view of the above, the Ministry also decided that proposal of Transfer of TOR [vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022] from M/s. JSPL to M/s. JSOL may not be required and be closed in Parivesh Portal. Accordingly, PP was requested to submit the request for closure for transfer proposal from Parivesh Portal.
 - (vii) M/s JSOL was granted Consent to Establish (CTE) by Odisha State Pollution Control Board (OSPCB) vide letter no. 13014/IND-II-CTE-6656 dated 26.07.2022.
 - (viii) Based on partial transfer of EC obtained from MoEF&CC dated 14.03.2022, PP has reported that 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill are under construction phase and CTO has not been obtained.
3. The PP reported that the total land required by JSOL for expansion project is about 1460.51 ha (3609 acres). Out of the total 3609 acres, 2726.61 acres area is already acquired by

JSPL and the same is being sub-leased to JSOL. Revenue and Disaster Management Department, Govt. of Odisha vide its letter dated 21.06.2022 has allowed JSPL to sub-lease the land measuring 2120.325 acres to JSOL for setting up of 19.2 MTPA Steel plant and 12.5 MTPA Cement plant. The additional area of 882.12 acres will be acquired by JSOL. Letter has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JSOL/378/21/3248 dated 09.09.2022 for allotment of additional land to JSOL for setting up the plant at Angul Odisha after assessment by the High Level Clearance Authority (HLCA) in its 28th meeting held on 21.12.2021. The EAC deliberated on the land acquisition status and is of the view that the land status is not very clear and still not completely transferred in the name of JSOL, permissions pending at different levels.

4. The EAC noted that M/s JSPL has taken initially EC in 2007 and obtained various amendments in the EC from time to time. Further, the partial transfer of EC was also obtained from M/s JSPL to M/s JSOL in March 2022. In this regard, if M/s JSPL is sub-leasing the land to M/s JSOL which is a part of EC of M/s JSPL, then in this regard there is a need for Modification in EC of M/s JSPL also. In this regard, PP is requested to provide the factual details on this land issues.
5. The EAC made a note of the fact that the proposed expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010, however the same has not been transferred in the name of M/s. JSOL. The PP is requested to take necessary action for transfer of FC in the name of M/s JSOL.
6. The EAC noted that the already acquired areas to be sub-leased to JSOL involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. PP has reported that majority of project displaced families (PDFs) are interested to receive one time full & final R&R package for their self-settlement. Remaining PDFs shall be resettled in Resettlement & Rehabilitation colonies for which lease proposal for Resettlement & Rehabilitation colony is under process by the District Administration. The EAC is of the view that since this is one of its kind project, involving large capital investment, it is imperative that R&R issues do not arrive during the execution of the project also considering the fact that there are approx. 109 villages in 10 km radius. The R&R picture needs to be clear at the forefront.
7. Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada falls at the project Site. There are approx. 109 villages in 10 km radius study area of the project site. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.
8. Further, PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.

9. Kurdabhali Nala is present at the plant site. Parang Minor Irrigation project (MIP) and Nandira Jor are adjacent to the project site. Sixteen water bodies including Nala, reservoirs and canal are within the study area. The EAC is of the opinion that water bodies are required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures is not submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.
10. The PP/Consultant presented the drone video of the project site and the EAC is of the opinion that drone videography do not give complete picture of the site. Also, the adjacent site of JSPL is also not covered in the video which is also essential since, existing project is a part acquired from JSPL.
11. The EAC deliberated on the baseline data and observed that the maximum values of PM10 and PM2.5 are very high. The existing project is still in construction phase and the incremental GLC may result in higher emissions after implementation of the proposed project.
12. The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.
13. Six Schedule-I species were found within 10 km radius of the study area of the plant site during biological study. It is reported that as recommended by the PCCF & HOFF, Govt. of Odisha, a site-specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF & HoFF, in line with the guidelines of the Govt. of Odisha.
14. The EAC deliberated on the CCR dated 20.12.2022 obtained from IRO, MoEF&CC and observed that 13 observations have been raised by the IRO majorly involving CAAQMS installation, Fugitive emissions, groundwater monitoring, dust and ETP sludge, rainwater harvesting, greenbelt, CREP guidelines, water conservation, wastewater management etc. Also, PP has reported that they have submitted the ATR just now to IRO but the closure report of IRO is not obtained. Compliance of existing EC conditions is essential for an expansion project.
15. It was also apprised to the EAC members that Ministry is in receipt of a representation dated 13.01.2023 against the project requesting for “Stay Order” on “Environment Clearance” for proposed phase-2 expansion of JSPL-Angul till 100% execution of all guidelines, policies, terms & conditions pertaining to Environment Clearance given to JSPL-Angul dated 22nd Feb’2007, Consent to Operate orders issued by RO/SPCB, proceedings issued by District Administration. The EAC is of the opinion that since the issues raised are pertaining to proposed project, the complaint shall be shared with the project proponent for their pointwise reply. The EAC advised the Ministry to forward the representation to project proponent for their justification/clarification. Also, it is pertinent to undertake site visit to understand the issues in detail. In this context, representation has

been forwarded to PP. It was also informed to the EAC that the IRO MoEFCC was requested to provide the factual report in this regard.

16. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the action plan does not justify the addressal of issues effectively. PP needs to revise the action plan in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.
17. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that that the EMP cost do not commensurate with the project cost. The EMP measures and associated cost needs to be revisited.
18. The PP has reported that project involves tree felling in the proposed site. PP has not submitted the details of the tree felling and status of permission from the Competent Authority. Thus it is important to understand the nature of the land.
19. The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
20. The PP has not submitted the details of the existing greenbelt in the land to be sub leased from M/s. JSPL. The Committee deliberated that EC was granted long back in 2007 to JSPL and greenbelt should have been developed by now. Therefore, PP is required to submit the details of the greenbelt along-with the photographs.
21. There are many PF and RF very adjacent to the project site and within the study area. PP needs to submit the mitigation measures that will be undertaken to minimise the impact of the proposed project.
22. Details of railway siding permission and its status needs to be submitted.
23. Updated status and development of slurry pipelines needs to be submitted.
24. EAC noted that Green belt plan is not adequate and needs revision.
25. PP needs to revise the water balance as it is not adequate as deliberated during the meeting.
26. It was observed that still R&R issues are pending w.r.t. PAF. Details needs to be submitted.
27. PP also needs to submit all the directions issued by the SPCB, if any, and details court cases, if any.
28. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating

road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

29. The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.
30. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit of the sub-committee of the EAC to understand the ecological/environmental sensitivity of the area/ complexity of the project/ size of the project and the various other issues involved in the project related to earlier EC of 2007 and its compliance of earlier EC conditions of 2007 and also partial transfer of EC of 2022, compliances of earlier PH commitments, R&R issues and other issues as mentioned above. In view of very large project and enormous number of issues are involved, the EAC is suggested to conduct the site visit with sub-committee involving the representatives of SPCB & IRO, MoEFCC so that all the issues are addressed accordingly for this mega project.

25.5.4 In view of the foregoing and after deliberations, the Committee recommended to defer the proposed project and recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. Dipankar Shome, Dr. Tejaswini Ananthkumar, Shri Nazimuddin and Representative of IRO, MoEF&CC, Representative of SPCB, Odisha and Representative of MoEFCC, to conduct the site visit and submit the factual Report covering all the issues. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC.

25.5.5 Accordingly, the EAC (Industry-1) sub-committee conducted a site visit to M/s Jindal Steel Odisha Limited (JSOL), located at Villages Basudevpur, Panpur, Kaliakata Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada, Tehsil: Chhendipada & Banarpal, District Angul, Odisha was undertaken on 21-22nd February 2023.

25.5.6 At this instance, the proposal was further considered by the EAC (Industry 1) in its 25th meeting of the EAC for Industry-I sector held on 21st – 23rd March, 2023. The details of the proposed project are as follows:

Details submitted by Project proponent

25.5.7 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
6 th July 2022	Standard ToR granted	Terms of Reference	7 th July 2022	6 th July 2026

25.5.8 The project of M/s Jindal Steel Odisha Limited located in Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang,

S. No	Particulars	Details submitted by the PP				Remarks																																																																																																																		
					High Level Clearance Authority (HLCA)																																																																																																																			
		Sub-total (A)	5619	2010.27	3608.73																																																																																																																			
		Township (B)	310	310	-																																																																																																																			
		Total (A+B)	5929	2320.27	3608.73																																																																																																																			
iii.	Existence of habitation & involvement of R&R, if any.	<p>Plant Site: Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr><td>Odkapa</td><td>0.7km</td><td>SE</td></tr> <tr><td>Banuasahi</td><td>0.88 km</td><td>SW</td></tr> <tr><td>Kerjanga</td><td>0.90 km</td><td>South</td></tr> <tr><td>Golabandha</td><td>1.25 km</td><td>SSE</td></tr> <tr><td>Sadanandapur</td><td>1.5 km</td><td>SE</td></tr> <tr><td>Dudhiabeda</td><td>1.68 km</td><td>SSE</td></tr> <tr><td>Bimalabeda</td><td>1.78 km</td><td>SW</td></tr> <tr><td>Panapur</td><td>1.91 km</td><td>ESE</td></tr> <tr><td>Basudevpur</td><td>2.05 km</td><td>SE</td></tr> <tr><td>Santarapur</td><td>2.48 km</td><td>South</td></tr> <tr><td>Nisa</td><td>2.55 km</td><td>NE</td></tr> <tr><td>Baradiha</td><td>2.63 km</td><td>West</td></tr> <tr><td>Maratira</td><td>2.75 km</td><td>SSE</td></tr> <tr><td>Balichandrapur</td><td>2.77 km</td><td>NE</td></tr> <tr><td>Paranga</td><td>2.88 km</td><td>SE</td></tr> <tr><td>Amantapur</td><td>2.88 km</td><td>SSW</td></tr> <tr><td>Puriabeda</td><td>2.97 km</td><td>SSW</td></tr> <tr><td>Kulei</td><td>3.06 km</td><td>SSE</td></tr> <tr><td>Ambapal</td><td>3.10 km</td><td>South</td></tr> <tr><td>Tukuda</td><td>3.12 km</td><td>WSW</td></tr> <tr><td>Bhubanpur</td><td>3.5 km</td><td>ENE</td></tr> <tr><td>Malisahi</td><td>3.5 km</td><td>WSW</td></tr> <tr><td>Kanjara</td><td>3.59 km</td><td>SW</td></tr> <tr><td>Rautal</td><td>3.6 km</td><td>SSW</td></tr> <tr><td>Badahinsara</td><td>3.90 km</td><td>SSE</td></tr> <tr><td>Jerang</td><td>4.04 km</td><td>West</td></tr> <tr><td>Durgapur</td><td>4.33 km</td><td>NW</td></tr> <tr><td>Jarapada</td><td>4.48 km</td><td>West</td></tr> <tr><td>Purunagarh</td><td>4.5 km</td><td>NW</td></tr> <tr><td>Tubey</td><td>4.63 km</td><td>SSE</td></tr> <tr><td>Bada hinsara</td><td>5.12 km</td><td>North</td></tr> <tr><td>Madanmohan patna</td><td>5.14 km</td><td>NW</td></tr> <tr><td>Podakhaman</td><td>5.16 km</td><td>SE</td></tr> <tr><td>Majhika</td><td>5.18 km</td><td>ESE</td></tr> <tr><td>Durgapur(Tangirisahi)</td><td>5.53 km</td><td>WNW</td></tr> <tr><td>Bhagirathipur</td><td>5.55 km</td><td>West</td></tr> <tr><td>Khamana</td><td>5.7 km</td><td>NNE</td></tr> </tbody> </table>				Habitation	Distance	Direction	Odkapa	0.7km	SE	Banuasahi	0.88 km	SW	Kerjanga	0.90 km	South	Golabandha	1.25 km	SSE	Sadanandapur	1.5 km	SE	Dudhiabeda	1.68 km	SSE	Bimalabeda	1.78 km	SW	Panapur	1.91 km	ESE	Basudevpur	2.05 km	SE	Santarapur	2.48 km	South	Nisa	2.55 km	NE	Baradiha	2.63 km	West	Maratira	2.75 km	SSE	Balichandrapur	2.77 km	NE	Paranga	2.88 km	SE	Amantapur	2.88 km	SSW	Puriabeda	2.97 km	SSW	Kulei	3.06 km	SSE	Ambapal	3.10 km	South	Tukuda	3.12 km	WSW	Bhubanpur	3.5 km	ENE	Malisahi	3.5 km	WSW	Kanjara	3.59 km	SW	Rautal	3.6 km	SSW	Badahinsara	3.90 km	SSE	Jerang	4.04 km	West	Durgapur	4.33 km	NW	Jarapada	4.48 km	West	Purunagarh	4.5 km	NW	Tubey	4.63 km	SSE	Bada hinsara	5.12 km	North	Madanmohan patna	5.14 km	NW	Podakhaman	5.16 km	SE	Majhika	5.18 km	ESE	Durgapur(Tangirisahi)	5.53 km	WNW	Bhagirathipur	5.55 km	West	Khamana	5.7 km	NNE	The already acquired areas to be sub-leased to JSO involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. Majority of project displaced families (PDFs) are interested to receive one time full & final R&R package for their self-settlement. Remaining PDFs shall be resettled in Resettlement & Rehabilitation colonies for which lease proposal for Resettlement & Rehabilitation colony is under process by the District Administration.
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		Raijharan	5.90 km	North	
		Malisahi	5.92 km	NE	
		Sanamahitala	5.93 km	East	
		Subarnapur	5.95 km	East	
		Derjanga	6.12 km	SE	
		Kankarei	6.44 km	NNE	
		Paratara	6.61 km	SE	
		Sorisapal	6.65 km	SSE	
		Pathargarh	6.70 km	SW	
		Benagadia	6.75 km	SE	
		Kandasara	6.76 km	West	
		Makundapur	6.78 km	North	
		Ogi	6.8 km	WSW	
		Jamunali	6.85 km	East	
		Jarasingha	6.9 km	East	
		Jukub(Jokub)	6.9 km	SSE	
		Jamunali	6.90 km	East	
		Bhalugadia	6.94 km	NE	
		Subarnapur	7.0 km	East	
		Laxmidharpur	7.11 km	West	
		Chhotabereni	7.31 km	NNE	
		Badakera	7.43 km	SSE	
		Musapapuli	7.44 km	SE	
		Govindapanasahi	7.46 km	West	
		Korada	7.52 km	NW	
		Anugul (M)	7.59 km	SE	
		Golagadia	7.60 km	North	
		Kusasinga	7.65 km	SE	
		Natada	7.66 km	ENE	
		Sasan	7.86 km	SSE	
		Kusumpal	7.87 km	NE	
		Madanmohanpatna	7.90 km	South	
		Rantalei	8.06 km	SE	
		Nandichhoda (Gopiballabhapur)	8.1 km	NNW	
		Chandrabahala	8.43 km	SSE	
		Putagadia	8.56 km	NW	
		Tumuni	8.75 km	SE	
		Kumunda	8.90 km	NNE	
		Karadagadia	8.95 km	SE	
		Gopinathapur	9.0 km	NNW	
		Bakala	9.0 km	WNW	
		Kuio	9.1km	East	
		Bethianali	9.39 km	ENE	
		Ragadiapada	9.43 km	SSE	
		Jhintipal	9.48 km	NW	
		Champatimunda	9.50 km	SSE	
		Gurudhi	9.5 km	South	

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		Alekhapatna	9.51 km	ESE						
		Gadeimunda	9.6 km	South						
		Chakradharpur	9.8 km	North						
		Kosala	9.81 km	NNW						
		Chitalpur	9.85 km	NE						
		Belasuntha	9.88 km	East						
		Badadandasahi	9.89 km	SE						
		Matiasahi	9.91 km	West						
		Badajharan	9.92km	East						
		Panchamahala	10.0 km	SSE						
		Ranigoda	10.0 km	SE						
		Kalamchhuin	10.0 km	NE						
		There are approx. 109 villages in 10 km radius.								
		TIME LINES FOR COMPLETION OF R & R (Village-wise)								
		JSO Project Area	Village	Balance	(Apr-Jun) 2023	(Jul-Sep) 2023	(Oct-Dec) 2023	(Jan-Mar) 2024	(Apr-Jun) 2024	Timeline to complete resettlement
		JSPL area sub-lease to JSO (2120 Ac)	Jamunda Jungle	72	30	18	24	-	-	Resettlement by Dec'2023.
			Badakerjang Jungle (Land possession was given by IDCO in 2019.)	124	33	37	34	20	-	Resettlement by Mar'2024.
		JSPL area with IDCO to be leased to JSO (550 Ac)	Badakerjang Jungle (Land possession is expected by June-23)	148	-	20	38	42	48	Within one year from the date of possession of land from IDCO.
		Additional land 882 Ac to be acquired by JSO Badakerjang Jungle, Jamunda Jungle, Jamunda, Kaliakata, Jarada.)	Badakerjang Jungle (Land possession is expected by 2025)	100	-	-	-	-	-	Within one year from the date of possession of land from IDCO.
		Total		444	63	75	96	62	48	
iv.	Latitude and Longitude of all corners of the project site	Point	Latitude	Longitude						
		A	20°54'33.28"N	84°58'51.98"E						
		B	20°53'58.17"N	84°59'35.60"E						
		C	20°53'52.34"N	84°59'44.39"E						
		D	20°51'48.23"N	84°59'57.46"E						
		E	20°51'42.82"N	84°59'22.72"E						
		F	20°51'42.75"N	84°59'7.23"E						
		G	20°51'20.09"N	84°58'6.30"E						
		H	20°52'3.40"N	84°55'44.97"E						
		I	20°52'49.34"N	84°55'24.04"E						

S. No	Particulars	Details submitted by the PP			Remarks												
		J	20°53'20.34"N	84°55'22.20"E													
		K	20°54'2.76"N	84°56'6.09"E													
		L	20°54'7.81"N	84°57'16.72"E													
		M	20°54'23.75"N	84°57'29.95"E													
		N	20°54'21.64"N	84°58'12.08"E													
v.	Elevation of the project site	162 m to 211 m above mean sea level.			-												
vi.	Involvement of Forest land if any.	<p>No fresh additional forest land will be diverted for the expansion project.</p> <p>The expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010.</p> <p>The application for transfer of the FC to JSO has been made to the Forest Department vide letter dated 16.09.2022 and the same is under process for transfer.</p> <p>The Company has further submitted the undertaking w.r.t. the compliance to the terms and conditions on which the FC was granted by MoEF&CC. The transfer of FC to JSOL is under process.</p>			-												
vii.	Tree Felling	<ul style="list-style-type: none"> The approximate number of trees in the areas which will be disturbed/ cleared for development for plant facilities are about 3853. The Company has tree trans-planter machines and it is proposed to transplant about 2500 nos. of trees to locations wherein the green belt has been proposed. The trees falling in the area wherein the green belt has been proposed will not be disturbed and will be kept intact. The permission for tree felling will be taken from the Forest department as and when the project activities will start. 															
viii.	Water body exists within the project site as well as study area	<p>Plant site: Kurdabhali Nala is present at the plant site. As reported, M/s Jindal Steel & Power Ltd. (JSPL) has diverted the KurdabhaliNalah without affecting the flow of water to the Parang MIP. The permission to divert the nalah was granted by Department of Water Resource, Govt. of Odisha vide its letter No. 16687 dated 14.07.2017.</p> <p>Study area: Sixteen water bodies fall within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Parang Minor Irrigation project (MIP)</td> <td>Adjacent</td> <td>East</td> </tr> <tr> <td>NandiraJor</td> <td>Adjacent</td> <td>East</td> </tr> <tr> <td>Nigra Nala</td> <td>~0.4 km</td> <td>WSW</td> </tr> </tbody> </table>			Water body	Distance (km)	Direction	Parang Minor Irrigation project (MIP)	Adjacent	East	NandiraJor	Adjacent	East	Nigra Nala	~0.4 km	WSW	-
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		Derjanga Reservoir	~2.0 km	SE																																																																									
		Angul Main Canal	~3.2 km	ESE																																																																									
		Lingra Nala	~3.5 km	ESE																																																																									
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		Gundijerl Nala	~7.5 km	in NNW																																																																									
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		MarahhaJor	~9.5 km	NNE																																																																									
		Nuabanda Nala	~10.0 km	NW																																																																									
ix.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.	<p>No National Park / ESZ / ESA / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area. Therefore, NBWL approval is not applicable.</p> <p>List of Reserved forests & Protected forest :</p> <table border="1"> <thead> <tr> <th>Forests</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">Protected Forests</td> </tr> <tr> <td>Derjanga Golabandha PF</td> <td>~1.0 km</td> <td>SE</td> </tr> <tr> <td>Paranga PF</td> <td>~1.5 km</td> <td>ENE</td> </tr> <tr> <td>Nisha PF</td> <td>~3.0 km</td> <td>North East</td> </tr> <tr> <td>ArishilaSulia PF</td> <td>~3.3 km</td> <td>WNW</td> </tr> <tr> <td>Mandargiri PF</td> <td>~7.0 km</td> <td>South East</td> </tr> <tr> <td>Nanda PF</td> <td>~9.0 km</td> <td>SSE</td> </tr> <tr> <td colspan="3" style="text-align: center;">Reserved Forests</td> </tr> <tr> <td>Kerjang RF</td> <td>Adjacent</td> <td>South</td> </tr> <tr> <td>Durgapur RF</td> <td>Adjacent</td> <td>North West</td> </tr> <tr> <td>Kaliakata RF</td> <td>Adjacent</td> <td>North</td> </tr> <tr> <td>Hinsar Sorishpal RF</td> <td>~3.6 km</td> <td>SSW</td> </tr> <tr> <td>Pathargarh RF</td> <td>~4.5 km</td> <td>South West</td> </tr> <tr> <td>Malibandha RF</td> <td>~5.0 km</td> <td>East</td> </tr> <tr> <td>Katara RF</td> <td>~5.3 km</td> <td>West</td> </tr> <tr> <td>Kalapat RF</td> <td>~5.5 km</td> <td>SSW</td> </tr> <tr> <td>Sorishpal RF</td> <td>~ 5.8 km</td> <td>SSE</td> </tr> <tr> <td>Jaipur RF</td> <td>~7.0 km</td> <td>NNE</td> </tr> <tr> <td>Kuio RF</td> <td>~7.0 km</td> <td>East</td> </tr> <tr> <td>Simuliapathar RF</td> <td>~7.2 km</td> <td>WNW</td> </tr> <tr> <td>Barhadandasahi RF</td> <td>~8.5 km</td> <td>SSE</td> </tr> <tr> <td>Gopalprasad RF</td> <td>~ 9.0 km</td> <td>North East</td> </tr> <tr> <td>Kauchiakhhol RF</td> <td>~9.0 km</td> <td>ENE</td> </tr> </tbody> </table>			Forests	Distance (km)	Direction	Protected Forests			Derjanga Golabandha PF	~1.0 km	SE	Paranga PF	~1.5 km	ENE	Nisha PF	~3.0 km	North East	ArishilaSulia PF	~3.3 km	WNW	Mandargiri PF	~7.0 km	South East	Nanda PF	~9.0 km	SSE	Reserved Forests			Kerjang RF	Adjacent	South	Durgapur RF	Adjacent	North West	Kaliakata RF	Adjacent	North	Hinsar Sorishpal RF	~3.6 km	SSW	Pathargarh RF	~4.5 km	South West	Malibandha RF	~5.0 km	East	Katara RF	~5.3 km	West	Kalapat RF	~5.5 km	SSW	Sorishpal RF	~ 5.8 km	SSE	Jaipur RF	~7.0 km	NNE	Kuio RF	~7.0 km	East	Simuliapathar RF	~7.2 km	WNW	Barhadandasahi RF	~8.5 km	SSE	Gopalprasad RF	~ 9.0 km	North East	Kauchiakhhol RF	~9.0 km	ENE	-
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Mandargiri PF	~7.0 km	South East																																																																											
Nanda PF	~9.0 km	SSE																																																																											
Reserved Forests																																																																													
Kerjang RF	Adjacent	South																																																																											
Durgapur RF	Adjacent	North West																																																																											
Kaliakata RF	Adjacent	North																																																																											
Hinsar Sorishpal RF	~3.6 km	SSW																																																																											
Pathargarh RF	~4.5 km	South West																																																																											
Malibandha RF	~5.0 km	East																																																																											
Katara RF	~5.3 km	West																																																																											
Kalapat RF	~5.5 km	SSW																																																																											
Sorishpal RF	~ 5.8 km	SSE																																																																											
Jaipur RF	~7.0 km	NNE																																																																											
Kuio RF	~7.0 km	East																																																																											
Simuliapathar RF	~7.2 km	WNW																																																																											
Barhadandasahi RF	~8.5 km	SSE																																																																											
Gopalprasad RF	~ 9.0 km	North East																																																																											
Kauchiakhhol RF	~9.0 km	ENE																																																																											

S. No	Particulars	Details submitted by the PP			Remarks
			Sakasingha RF	~9.0 km	
	Kulasinga RF	~9.0 km	South		
	Burti RF	~9.0 km	SSW		
	Parha RF	~9.0 km	WSW		
	BarhaKathia RF	~9.5 km	NNE		

25.5.10 **Chronology of ToR/EC**

- Initially, M/s. Jindal Steel & Power Limited (JSPL) was granted ToR for expansion of Integrated Steel Plant from 6 MTPA liquid steel to 25.2 MTPA liquid steel (24.79 MTPA Crude Steel) and 12.5 MTPA Cement plant located at Village Kerjang, Tehsil Chhendipada, District Angul, Odisha vide letter dated 08/02/2021 with amendments dated 16.06.2021 and 29.11.2021.
- M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I) dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.
- Further, M/s. JSPL again applied for amendment in ToR dated 08/02/2021 (with amendments dated 16.06.2021 and 29.11.2021) w.r.t. change in land use due to exclusion of the forest land from the TOR and was accorded ToR amendment vide letter dated 15.06.2022.
- M/s. JSOL then applied for Transfer of ToR dated 08/02/2021 (with amendments dated 16.06.2021, 29.11.2021 and 15.06.2022) vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022 from M/s. JSPL to M/s. JSOL.
- Thereafter, M/s Jindal Steel Odisha Limited, vide proposal no. IA/OR/IND/281741/2022, has submitted the TOR proposal for Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven- 5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2, MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant at Angul Odisha. Accordingly, the Ministry has issued TOR to M/s Jindal Steel Odisha Limited for the above mentioned project on 07.07.2022.
- In view of the above, the Ministry also decided that proposal of Transfer of TOR [vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022] from M/s. JSPL to M/s. JSOL may not be required and be closed in Parivesh Portal. Accordingly, PP was requested to submit the request for closure for transfer proposal from Parivesh Portal.
- M/s JSOL was granted Consent to Establish (CTE) by Odisha State Pollution Control Board (OSPCB) vide letter no. 13014/IND-II-CTE-6656 dated 26.07.2022.

25.5.11 Implementation Status of the existing EC:

S. No.	Facilities	Units	As per Partial Transfer of EC dated 14.03.2022	Implementation Status as on date	Production as per CTO
1.	Pellet Plant	MTPA	5.0	Under implementation	Not applicable at present
2.	Hot Strip Mill	MTPA	3.1	Under implementation	Not applicable at present

25.5.12 The unit configuration and capacity of existing and proposed unit are given as below:

S. NO.	Plant equipment / facility	Existing facilities as per EC dated 14.03.2022								Proposed Units		Final (Existing+ Proposed)		Remarks / Products
		TOTAL (A+B)		IMPLEMENTED (A)		Unimplemented(B)		As per CTO						
		Config uration	Capacity	Config uration	Capacity	Config uration	Capacity	Config uration	Capacity	Config uration	Capacity	Config uration	Capacity	
1)	DRI Plant	-	-	-	-	-	-	-	-	2x2.7 MTPA	5.4 MTPA	2x2.7 MTPA	5.4 MTPA	DRI/HBI
2)	Coke Oven	-	-	-	-	-	-	-	-	2x70 ovens & 4x56 ovens	5.17 MTPA	2x70 ovens & 4x56 ovens	5.17 MTPA	Metallurgical coke
3)	Sinter Plant	-	-	-	-	-	-	-	-	2x490.5 m ²	11.5 MTPA	2x490.5 m ²	11.5 MTPA	Sinter
4)	Blast Furnace	-	-	-	-	-	-	-	-	2x5400 m ³ & 1x6000 m ³	14 MTPA	2x5400 m ³ & 1x6000 m ³	14 MTPA	Hot metal (Liquid Iron)
5)	EAF	-	-	-	-	-	-	-	-	1x250 T & 1x360 T	6 MTPA	1x250 T & 1x360 T	6 MTPA	Liquid steel
6)	BoF	-	-	-	-	-	-	-	-	2x300 T & 2x360 T	13.2 MTPA	2x300 T & 2x360 T	13.2 MTPA	Liquid steel
7)	Wire Rod Mill	-	-	-	-	-	-	-	-	-	1.2 MTPA	-	1.2 MTPA	Wire rod
8)	Hot Rolling Mill	1x3.1 MTPA	3.1 MTPA	-	-	Yet to be completely implemented	Yet to be completely implemented	-	-	3x6 MTPA	18 MTPA	1x3.1 MTPA & 3x6 MTPA	21.1 MTPA	Hot rolled products
9)	CRM Complex	-	-	-	-	-	-	-	-	3x2.5 MTPA	7.5 MTPA	3x2.5 MTPA	7.5 MTPA	Cold Rolled Coils
10)	Calcination plant	-	-	-	-	-	-	-	-	12x600 TPD	7200 TPD	12x600 TPD	7200 TPD	Calcined Lime & Dolo
11)	Oxygen Plant	-	-	-	-	-	-	-	-	2x2700 TPD & 2x2800 TPD	11000 TPD	2x2700 TPD & 2x2800 TPD	11000 TPD	Oxygen/ Nitrogen/ Argon

S. NO.	Plant equipment / facility	Existing facilities as per EC dated 14.03.2022								Proposed Units		Final (Existing+ Proposed)		Remarks / Products
		TOTAL (A+B)		IMPLEMENTED (A)		Unimplemented(B)		As per CTO		Config uration	Capacity	Config uration	Capacity	
		Config uration	Capacity	Config uration	Capacity	Config uration	Capacity	Config uration	Capacity					
12)	Power Plant	-	-	-	-	-	-	-	-	2x275 MW	Gas fired-550 MW	2x275 MW	Gas fired-550 MW	Power
13)	Ferro Alloy Plant	-	-	-	-	-	-	-	-	-	0.376 MTPA	-	0.376 MTPA	Ferro alloy
14)	Pellet Plant	1x5 MTPA	5 MTPA	-	-	Yet to be completely implemented	Yet to be completely implemented	-	-	3x7 MTPA)	21 MTPA	(1x5 MTPA & 3x7 MTPA)	26 MTPA	Pellet
15)	Cement Plant	-	-	-	-	-	-	-	-	3x3.5 MTPA & 1x2 MTPA	12.5 MTPA	3x3.5 MTPA & 1x2 MTPA	12.5 MTPA	Cement

25.5.13 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S. No	Raw Materials	Quantity required per annum			Source	Distance from Site (Km)	Mode of Transportation
		Existing (in TPA)	Expansion (in TPA)	Estimated gross quantity (in TPA)			
1.	Coking Coal	-	7,729,576	7,729,576	International market(Mozambique, Australia and Canada)	220 KMs from Paradeep Port	Sea, Rail
2.	Iron ore fines	-	8,883,404	8,883,404	Procured from the Joda-Barbil regions of Odisha and also from NMDC Limited through auction	215 Kms	Rail
3.	Coal	-	3,15,000	3,15,000	Coal mines of JSP at Talcher	9 kms	Conveyor
4.	Limestone	-	5,918,315	5,918,315	SMS grade – Middle East Countries (UAE and Oman). BF grade - Jukehi- Katni-Niwar area in Central India or the quarries located in Jaggayapetta region, Andhra Pradesh or imported from international market	955 Kms	Sea, Rail
5.	Dolomite	-	222,599	222,599	Jaggayapetta region, Andhra Pradesh or mines in Katni- Bilaspur region, Central India	955 km	Rail
6.	Quartz	-	659,455	659,455	Domestic	1800 km	Rail
7.	Anthracite	-	353,218	353,218	Domestic	220 KMs from Paradeep Port	Rail
8.	Bentonite	-	1,55,550	1,55,550	Domestic	2000 Kms	Rail
9.	PCI Coal	-	3,139,718	3,139,718	International market (Australia, South Africa and Indonesia)	220 KMs from Paradeep Port	Sea, Rail
10.	Iron Ore Slurry	6000000	34,000,000	40,000,000	Procured from Barbil regions of Odisha	215 Kms	Slurry Pipe
11.	Lump Iron Ore	-	412,088	412,088	JodaBarbil region	215 Kms	Rail/Road
12.	Mn Ore	-	858,570	858,570	Domestic	250 Kms	Rail/Road
13.	Cr Ore	-	143,670	143,670	Domestic, Sukinda region	120 Kms	Road
14.	Clinker	-	5,729,500	5,729,500	Domestic/International market	-	Sea, Rail
15.	Gypsum	-	312,500	312,500	Domestic	1800 Kms	Rail

*In absence/ during shortage of availability of rakes, to maintain continuity of the operations of plant, Company will be compelled to transport the material by road.

25.5.14 Existing water requirement for the Pellet plant and Hot Strip mill is 1095 m³/hr. Total Water requirement for after expansion will be 14060 m³/hr out of which 11020 m³/hr will be sourced

from River Brahmani and the balance water requirement will be met through recycled/ treated water. Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JOSL/378/21 dated 30.09.2022 has recommended for 105 cusec water supply to the company from Brahmani river.

25.5.15 Existing power requirement for the Pellet plant and Hot Strip mill is 185 MW. Power requirement for the proposed project will be 1760 MW. Thus, after expansion power requirement will be 1945 MW which will be sourced from the gas based Captive Power Plant (550 MW) of JSO & Power plants of 810 MW and newly acquired 1050 MW TPP of JSP at Angul, Odisha. Any shortage of power requirement will be met from Grid.

25.5.16 Baseline Environmental Studies

Parameters	Description STUDY PERIOD - WINTER SEASON (December, 2020 to February, 2021)
Ambient Air Quality Monitoring at 12 Locations	<ul style="list-style-type: none"> • PM10 - 57.8 to 90.3 µg/m³ • PM2.5 - 25.5 to 51.5 µg/m³ • SO₂ -5.6 to 20.8 µg/m³ • NO_x -10.3 to 31.3 µg/m³ • CO -BDL to 1.42 mg/m³ • Pb- BDL to 0.3 µg/m³ • NH₃- BDL to 10.3 µg/m³ • O₃- BDL to 16.3 µg/m³ • Ni- BDL to 10.1 µg/m³
AAQ modeling (Incremental GLC) Model: AERMOD version 9.9.0	<ul style="list-style-type: none"> • PM = 2.32 to 10.76 µg/m³ • SO₂ =0.99 to 7.2 µg/m³ • NO_x = 1.45 to 8.2 µg/m³
Ground Water Sampling at 8 locations	<ul style="list-style-type: none"> • pH -7.04 to 7.58 • Total Hardness -113.8 to 490.05 mg/l • Chlorides – 34.9 to 197.25 mg/l • Fluorides –0.52 to 1.04 mg/l • Heavy Metal - Iron as Fe - 0.17 to 0.47mg/l
Surface Water Sampling at 13 locations	<ul style="list-style-type: none"> • pH -7.14 to 7.52 • DO -5.8 to 7.3 mg/l • BOD - 2.9 to 21 mg/l • COD -8 to 80 mg/l
Noise Level Monitoring at 12 locations	During Day Time - 52.1 to 71.3 Leq dB (A) During Night Time -41.3 to 62.2 Leq dB(A)
Traffic assessment study findings	<ul style="list-style-type: none"> • Traffic survey has been conducted at NH-42 which is approximately 2.0 km in South West direction from site. • Transportation of raw material, fuel & finished product will be done 90% by rail and remaining by road. In absence/ during shortage of rakes, the company will have to transport the material by road. • Existing PCU is 307 PCU/hr on NH-42 and existing level of service (LOS) is:

Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr. as per IRC: 106-1990)	Existing V/C Ratio	LOS
NH- 42	307	1500 (2 lane– Two Way)	0.205	B
<ul style="list-style-type: none"> PCU load after expansion project will be existing 307+ additional 15 PCU/hr and level of service (LOS) will be: 				
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr. as per IRC: 106-1990)	V/C Ratio	LOS
NH- 42	307+15=322	1500	0.215	B
<p>*Capacity as per IRC 106-1990 guidelines for capacity of roads</p> <p>Conclusion: The level of service will be “B” after including additional traffic due to proposed project. there will not be any change in the LOS.</p>				
Flora & Fauna	<p>6 Schedule-I species were found within 10 km radius of the study area of the plant site during biological study.</p> <p>The steel plant project of Jindal Steel Odisha Limited (JSO) is to be established majorly in the area initially acquired by Jindal Steel & Power (JSP) for setting up of its existing steel plant.</p> <p>JSPL had already acquired the area and accordingly the Wildlife Conservation Plan was prepared for the impact area and the same was duly approved by the PCCF (WL) & Chief Wildlife Warden, Odisha. The Company had already deposited Rs. 3.78 crores for execution of the approved plan.</p> <p>As recommended by the PCCF & HOFF, Govt. of Odisha, a site specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF & HoFF, in line with the guidelines of the Govt. of Odisha.</p> <p>The Company undertakes to deposit the amount for execution of the plan, to be approved by the PCCF & Chief Wildlife Warden.</p>			

25.5.17 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment & disposal
1	BF Slag	Blast furnace	4,620,000	Granulation in Slag granulation plant and used in the captive cement manufacturing plant to produce Portland slag cement. Dry slag would be used for construction purpose.
2	BOF Slag	Basic oxygen furnace	2,112,000	Use in construction purposes mainly for road sub grade preparation. Proposed use in railway ballast, construction aggregate etc. after accelerate weathering
3	EAF Slag	Electric Arc furnace	1,320,000	Used as construction aggregate and as road sub grade
4	BF Flue dust	Blast furnace	3,710,000	Use in Sinter plant
5	SMS Flue Dusts	Steel melting shop	576,000	Reuse in Agglomeration and external sale
6	Mill Scales	Rolling mills	600,000	Reuse in agglomeration

S. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment & disposal
7	Chrome sludge (Hazardous waste)	Ferro alloy plant	180 m3	Transferred to authorized agency for treatment and safe disposal in HWTSDF
8	BOD Sludge	ETP	1,500	Recycled to coke ovens
9	Coal tar sludge	Producer gas plant	2,500	Recycled to coke ovens
10	CETP Sludge	CETP	1,500	RO rejects will be treated in MEE and the crystallized solids which have no commercial value will be transferred to authorized agency for disposal. Carbon bearing sludge would be recycled back to Coke Oven

Note: Other solid wastes like clarifier sludge, ESP/Bag Filter dust, refractory debris etc. will be generated from the steel plant. These would be reused/recycled within the plant to the extent possible and the balance would be transferred to Authorized agencies for reuse/recovery of materials/disposal as per prevailing regulations.

25.5.18 Public Consultation

S.No.	Particulars	Details
1.	Advertisement for Public Hearing	
	Date of advertisement published	23.08.2022.
	Name of newspapers	“The Times of India” and “The Dharitri”
2.	Date / Time of Public Hearing	28.09.2022 at 11.00 A.M.
3.	Venue	Sabghara, Angul
4.	Public Hearing Panel	Additional District Magistrate (General), Angul District.
5.	Major Issues Raised	Better package for displaced persons as per new rate, Preference to women in employment, Employment opportunity to local people, Equal pay for same type of work, Provide club houses, cultural facility, recreational facility in villages, Provision of complaint box and monthly meeting with villagers, control of air pollution, improvement & maintenance of roads connecting to villages, Promotion of poor and bright students, provision of cold storage facility for vegetable growers, Control of Noise Pollution, Increase in CRS activities, More ITI provisions, Water Supply Facility, control of water pollution, Old age home for old people from villages, Increased plantation program, Solid waste utilization, Establishment of University for higher education to local people, Provision of multispecialty hospital.

Action plan as per MoEF&CC O.M. dated 30/09/2020

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
PART- A										
For People at large (Angul and Beyond)										
1	Community Health Care , Nutrition, Drinking water and sanitation	100 beded multi speciality Hospital	JSP Campus, Angul	85.00	24.00	16.00	17.00	18.00	160.00	Super specialist Hospital and Trauma Center from Angul, Deogarh, Keonjhar and Dhenkanal districts. Free OPD & IPD treatment for BPL, destitute and other underprivileged State-of-art health care to other local community beyond Govt. Health schemes. Each year 10 Lakh+ people, deprived of the quality health care will be benefitted.
		100 beded Dharmasala for Attendant	District Head Quarter Hospital, Angul	5.00	1.00	0.70	0.60	0.70	8.00	Poor and needy patients and attendants coming from far off places can avail residential benefits during treatments at the District Head Quarter Hospital Each year 50000+ underprivileged people will be benefitted.
		Health Insurance for communities	39 villages of plant periphery	7.5	8.3	9.1	10.1	12.0	46.85	Community members of 15000 families will avail cashless emergent and critical health care support.
		KISHORI EXPRESS (Control anemia among adolescent girls)	Angul and Banarapal block 386 villages	0.44	0.45	0.46	0.47	0.48	2.32	1) Control anemia among adolescent girls 2) 25000+ adolescent girls will be benefitted per year
		VATSALYA (Women and Child Care to control of Infant & Maternal Mortality Rate)	1000 Anganawadi Center of the Angul District 400 villages	1.60	0.20	0.20	0.20	0.20	2.40	1) IMR and MMR will be reduced through quality, health care, ANC, PNC and institutional delivery 2) 10000+ pregnant women will be benefitted
		Elimination of HIV and TB Mukh Bharat	Angul and Banarapal block 386 villages	0.20	0.20	0.20	0.20	0.20	1.00	1) Rate of mortality and morbidity due to HIV /AIDS & TB will be reduced through counselling, screening and testing services. 2) 100000+ people will be benefitted per year.
		Poor Patient Treatment beyond Govt. facility	39 villages of Plant Periphery (Banarapal and Chhendipada Block	0.40	0.40	0.40	0.40	0.40	2.00	1) Curative health care to the needy who are beyond the Govt. support schemes. 2) Free treatment in Jindal Arogyam Hospital
		TELEMEDICINE CENTRES (Quality and timely care for the unreached population)	8 (Jamunda Jungle, Jamunda , Sana Jamunda, Sadanandapur, Paripara,	0.15	0.17	0.22	0.22	0.24	1.00	Needy people can avail the specialist consultation at the door-step.

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)					Envisaged impact on plan	
				Year -1	Year-2	Year-3	Year-4	Year-5		Total
			Odapkapa, Badakerjanga & Sudarshanpur)							
		Mega Health Camp	60 villages	0.50	0.50	0.50	0.50	0.50	2.50	Rural underprivileged community members will be facilitated with free disease diagnosis and treatment support.
		SWASTI EXPRESS(Elderly physical and mental care)	56 villages of plant periphery	0.57	0.28	0.34	0.40	0.36	1.95	5000 elderly people will be facilitated with physical, psychological and spiritual wellbeing.
		Advance Cardio Vascular Support Ambulance / Dead body carrier (need based)	Angul district	0.50	0.10	0.10	0.15	0.15	1.00	Cater referral support to critical patient with acute medical emergency / trauma to the Cuttack and Bhubaneswar
		CHIRANJEEVI (Combat Malnutrition in coordination with ICDS)	75 hamlets of Chhendipada, Kishorenagar, Athamallik and Pallahara Block of Angul District	0.50	0.50	0.50	0.50	0.50	2.50	Reduction of Malnutrition among 0- 6 years children in convergence with ICDS
		DRISTI (Eye Health services)	Truck Parking Area-Jungle Jamunda and 39 periphery villages	0.20	0.20	0.20	0.20	0.20	1.00	Truckers and rural community members will be facilitated with eye care services.
		Blood Donation camp	39 periphery villages	0.20	0.20	0.20	0.20	0.20	1.00	The rate of criticality pertaining to intake of infectious blood and lack of blood will be minimized.
		Chilled Water Van-Increase outreach to watersource area.	56 periphery villages	0.400	0.150	0.150	0.150	0.150	1.00	Availability of portable water for the public at different congregation places.
		Open Defecation Facility/Toilet (ODF +) DDWS (Dept. of Drinking water and sanitation)	39 villages of Plant Periphery	0.5	0.5	0.5	0.5	0.5	2.50	Supporting light house initiatives by DDWS for different Panchayat of the district. Supporting Swachha Bharat Mission of Govt. of India. Improve hygiene and Solid waste management.
		Water ATM	39 villages	0.60	0.35	0.35	0.35	0.35	2.00	Availability of filtered drinking water
		Health care facility improvement at Maratira PHC and Dispensary at New Basudevpur, Mahitala	10 villages under the purview of Maratira PHC & Mahitala village.	0.35	0.35	0.1	0.1	0.1	1.00	Community members will be provided with better health care facilities in convergence with health department.
		Total Health and Nutrition		104.616	37.80	30.17	32.19	35.23	240.02	

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
2	Education and Skill Building	Creating Education and Skill Hub (OPJCC, OPJS, Jindal Light house employability programme etc)	Across the Angul District	10.00	17.40	9.20	8.20	7.20	52.00	1) Entrepreneurship and employability skill of the trainees will be improved 2) The center will be up scaled as a State Skill Hub. 3) 2500+ local youths will be benefitted per Annum 4) 400 students (200 boys and 200 girls) will be be benefitted through hostel facility.
		Rural BPO	Mahitala village covering 39 villages	3.00	3.00	2.00	1.00	1.00	10.00	150 girls each year will be benefitted Computer skill of rural girls will be improved in managing BPOs.
		YASHASVI (Education and Skill development of girls)	Odisha	2.50	2.50	2.50	2.50	2.50	12.50	1000+ girls each year will be benefitted in enrolling for vocational and higher education in the institution of their choice.
		Education and Skill development for Boys (VJ Scholarship)	Odisha	2.00	2.50	3.00	3.50	4.00	15.00	1000+ Meritorious school going students from Class-8 onwards will be benefitted.
		Management of DAV Savitri Jindal School	Mahital village covering Chhendipada and Banarapal Block	2.00	2.50	3.00	3.50	4.00	15.00	Providing quality education to the underprivileged
		OPJ Scholarships-Scholarship (Star and Jewel) for students.(Scholarship for Meritorious Students)	Angul and nearby	0.15	0.15	0.15	0.15	0.15	0.75	Support to meritorius students to pursue their education.
		UTKARSH Coaching for IAS /IPS Aspirants	Angul and nearby	0.48	0.50	0.55	0.60	0.65	2.78	500 aspirants for the competitive examination will be benefitted through online coaching to address their career aspiration.
		ASHA The Hope (Rehabilitation of Divyanga)	50 nerby villages in plant periphery	5.00	1.00	1.00	1.00	1.00	9.00	Children with special needs will be facilitated with quality special education and rehabilitation.
		Eco Club at Schools	300 Highschools across the district	4.50	4.50	4.50	4.50	4.50	22.50	Sensitisation of students on energy conservation, plastic waste management, WASH, Environment education, climate consciousness, green rating etc..
		Total Education and Skill Building		29.63	34.05	25.90	24.95	25.00	139.53	
3	Sustainable Livelihood Activities	Rural Hat with cold storage in collaboration with	Maratira & Majhika	1.00	0.75	0.50	0.55	0.60	3.40	1) Direct linkage between farmers and consumers for selling of Farm products .2) Increase farmer's income through forward and backward linkage.3)

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
	and Natural Resource Management	NABARD and District Administration								Construction of cold storage will benefit the farmers for preservation of the vegetable and fruits. 4) 20000+ farmers will be benefitted.
		Dairy Development and establishment and linkage with mini chilling plant/ development of pasture for diary firm, etc	15 GPs (56 villages)	4.00	1.70	1.70	1.70	1.70	10.80	1) Dairy farming can be adopted as an alternative livelihood to improve the family income. 2) Improvement of the high yielding variety of cattle will be chosen as a farmers income source. 3) Selling will be improved through the mini chilling plant. 4) 3000 farmers will be benefitted
		Agri market information center (GP basis)	15 GPs (56 villages)	0.75	0.15	0.15	0.15	0.15	1.35	15000 farmers to be benefitted
		Animal husbandry services on GP basis	15 GPs (56 villages)	0.75	0.15	0.15	0.15	0.15	1.35	3000 farmers to be benefitted
		Krishi Unnati Programme: Livelihood promotion through agriculture and allied farming initiatives Creating and supporting Farmer Cooperative and Farmers Producer Organisation. 1) Farm Mechanisation. 2) Supporting cash crop, vegetable, oilseeds with forward and backward linkage. 3) Establishment of green house for ensuring good quality saplings to farmers 4) Promotion of vegetable cultivation to enhance the income of Farmer 5) Mushroom farming, 6) Vermicomposting, Azolla, Fodder Solar based irrigation and	39 periphery villages	9.50	9.50	9.50	9.50	9.50	47.50	Will substantially triple the income of farmers

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
		micro irrigation systems 7) Need based support								
		Women Empowerment and sustainable livelihood through Non-farm initiatives under Jana Jiveeka Kendra(JJK) Initiative 1) CSR Hub/ Infrastructure renovation for Women Empowerment projects. 2) Support to Women SHGs for income generation activities-Swawlamban. 3) Strengthening of SHG promotion-Swa-Shakti. 4) Advanced Tailoring- Training , exposure , product development-Aakriti	39 periphery villages	5.00	19.70	1.70	1.70	1.70	29.80	1) A center for excellence for the women empowerment and skill building initiatives with training, skill building, production and show case facilities for 6000 Self Help Group women members which can be an ideal center for the district/ near Districts. 2) Providing opportunity for improvement of family income through supplementary Income Generation initiatives.
		Total of Sustainable Livelihood Activities and Natural Resource Management		21.00	31.95	13.70	13.75	13.80	94.20	
4	Sports and Youth Engagement , Art & Culture	Volley ball & Kabaddi Academy	Angul Stadium	2.00	1.00	1.00	1.00	1.00	6.00	1) Sports talent in volley ball with coaching , mentoring and providing facility will be improved.2) 1000+ sports talents will be improved.
		Operation and maintenance sports hostel & stadium	across the angul district	0.50	0.40	0.40	0.40	0.40	2.10	Promotion of rural sports and maintenance of sports asset as a center of excellence in a place like Angul to promote various sports and activities. More than 5000 sports talent per annum will get the coaching, capacity building and platform for organising various sports event.
		Total Sports and Youth Engagement		2.50	1.40	1.40	1.40	1.40	8.10	
6	Social Inclusion	Children Home-Shelter Home for Parentless Children,Health & Nutrition Support	District : Angul, Sundargarh, Dhenkanal, Puri	4.08	1.50	1.50	1.50	1.50	10.08	More than 300 orphan children will be benefitted for their nutrition, health care and education

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
		Elderly Care-Shelter Home for Senior Citizens,Health & Nutrition Support	10 homes (300inmates) across the angul district	0.20	0.20	0.20	0.20	0.20	1.00	More than 300 elderly will be provided with food, nutrition and other support who are staying in shelder homes
		Marriage support to poor girls	39 periphery villages (100 girls per annum)	0.50	0.50	0.50	0.50	0.50	2.50	Parents of 500 girls will be supported during the marraiage event for inclusive social ritual.
		Skill building and employbilty programme for Transgender	100 Transgender every year across the district	0.25	0.25	0.25	0.25	0.25	1.25	Dignified life to the Transgender life to the Transgender
		Total		5.03	2.45	2.45	2.45	2.45	14.83	
Total Part-A				162.78	107.65	73.62	74.74	77.88	496.68	
PART- B										
VILLAGE SPECIFIC ADOPTION PLAN FOR CORE 39 VILLAGES										
1	Community Health Care , Nutrition, Drinking water and sanitation	Health Awareness programmes	Angul , chhendipada and banarapal block	0.50	0.15	0.15	0.15	0.15	1.10	Addressing preventive health through sensitisation. Improved public information center.
		Connecting the needy patient to nearby health center	39 villages	0.40	0.40	0.40	0.40	0.40	2.00	
		Annual Health check up camp	39 villages	1.80	1.00	1.00	1.00	1.00	5.80	
		Renovation of Drinking Water facilities	39 villages	0.20	0.20	0.20	0.20	0.20	1.00	All drinking water sources (Hand pumps, borewll) to be disinfected in collaboration with RWSS in different panchayats.
		Total Health and Nutrition			2.900	1.7500	1.75	1.75	1.75	9.90
2	Education	Class room Renovation in Schools & Colleges.	49 Primary and Upper primary , 16 High Schools, 2 colleges at plant periphery	1.80	1.50	0.60	0.60	0.50	5.00	Better teaching learning facilities in rural schools with smart class rooms , proper playground , class rooms with student friendly desk bench, Library, Labrotory, Toilets, Sports and games facilities, boundary wall etc as per school transformation project in collaboration with Govt. Programme More than 30000 students being benefited
		After School Learning Classes-Tuition/Coaching facility for high school students	39 villages		0.25	0.25	0.25	0.25	0.25	1.25

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
		Community Teacher for vernacular medium Schools	39 Villages	0.35	0.40	0.45	0.50	0.55	2.25	To addressed the skewed pupil teacher ration in Govt. schools to improve the quality education in vernacular medium schools.
		Creating Model Anganwadi Center	39 periphery villages	0.60	0.10	0.10	0.10	0.10	1.00	To provide a child friendly atmosphere to the preschool children.
		Ensuring Zero drop out and Promoting quality mass education-Siksha	39 villages	0.25	0.25	0.25	0.25	0.25	1.25	Zero drop out rate will be achieved in 39 operational villages.
		Total Education and Skill Building		3.25	2.50	1.65	1.70	1.65	10.75	
3	Sustainable Livelihood Activities and Natural Resource Management	Krishi Unnati Programme: Mini tool bank, Agro based MSME Promotion	39 periphery villages	1.56	1.56	1.56	1.56	1.56	7.80	Increase the farmer's income
		Renewable Energy, Climate change initiatives 1) Solar based Street light 2) Water body renovation 3) Community plantation	39 periphery villages	4.00	4.00	13.00	13.00	13.00	47.00	Creating carbon sinks as a sustainable environmental initiative to address climate need also providing critical activity point for various village requirement.
		Supplementary Livelihood promotion under Non-farm initiatives	39 periphery villages	2.35	2.35	2.35	2.35	2.35	11.75	A center for excellence for the women empowerment and skill building initiatives with training, skill building, production and show case facilities for 6000 Self Help Group women members which can be an ideal center for the district/ near Districts. Providing opportunity for improvement of family income through supplementary Income Generation initiatives.
		Total of Sustainable Livelihood Activities and Natural Resource Management		7.91	7.91	16.91	16.91	16.91	66.55	
4	Sports	Cricket Tournament for youths	Angul & Nearby	0.20	0.20	0.20	0.20	0.20	1.00	To promotes rural talents and helping them to provide platform in various levels.
		Football for boys & girls	Angul & Nearby	0.20	0.20	0.20	0.20	0.20	1.00	To promotes rural talents and helping them to provide platform in various levels.
		Mini stadium in villages	39 villages	1.95	2.00	2.50	3.00	3.50	12.95	
		Cultural center for promotion of art & culture (Bhagwat Tungji) and Danda	39 periphery villages	1.00	0.15	0.15	0.15	0.15	1.60	To promote local art and culture , supporting the cultura group to continue their traditional practices.

Sl. No.	Vertical	Nature of Project	Locations	Investment (Rs. Cr)						Envisaged impact on plan
				Year -1	Year-2	Year-3	Year-4	Year-5	Total	
		Nacha Mohotshav and other cultural programmes								
		Total Sports and Youth Engagement		3.35	2.55	3.05	3.55	4.05	16.55	
5	Rural Development	Community Utility Infra set up-Construction/ Renovation of community building/ Kalyan mandap	39 periphery villages	7.40	17.40	3.40	3.40	3.40	35.00	1) Renovation of existing community assets to conduct various events, village meeting, special congregations and regular community activities.2) Construction of new Community building (multi purpose hall).
		Model Park with Gym- Construction of Rural park & Gym	39 periphery villages	1.00	1.00	1.00	1.00	1.00	5.00	Asset for sensitisation of community for a healthy living through physical fitness.
		Access Road-Construction of road for better connectivity	39 periphery villages	10.00	30.00	1.00	1.00	1.00	43.00	Critical asset for connecting the villagers for various activities (To collaborate with the Govt. Sadak Yojana)
		Village Branding with Gate & painting of infrastructure development projects	39 villages	1.00	0.50	0.50	0.50	0.50	3.00	Unique identification of the village which is generally aspiration every villagers
		Rural Electrification, High mask LED Lights	39 periphery villages	2.35	2.35	2.35	2.35	2.35	11.75	Illumination of common place of a Village
		Total Rural Infrastructure		21.75	51.25	8.25	8.25	8.25	97.75	
6	Social Inclusion	Holistic care to destitute, vulnerable and underprivileged-SNEH	500 persons in 56VILLAGES	0.35	0.35	0.35	0.45	0.50	2.00	Support to the underprivileged (those who are not included in Govt. scheme) to address their hunger, nutrition and education until they are included in Govt. scheme.
		Total		0.35	0.35	0.35	0.45	0.50	2.00	
Total Part-B				39.51	66.31	31.96	32.61	33.11	203.50	
Grand Total Part A +B				202.29	173.96	105.58	107.35	110.99	700.18	
Note- 1. In addition to the above plan, the Company is also investing more than Rs. 1500 Crores for construction of environmental friendly technologies like Iron Ore Slurry Pipeline, Closed Coal Pipe Conveyor for transporting of raw material. This will help in reducing the vehicular emissions as well as fugitive emissions encountered due to the transportation of material through trucks. 2. The Company will also be establishing the Solar based Power Plant with capital expenditure of about Rs. 250 crores to generate renewable energy. 3. In total, the Company will be spending circa Rs. 2500 crores on CER and Environmental Mitigation measures inter-alia including the above projects that have attended business benefits as the company firmly believe that good environmental practices and good governance are good for business.										

25.5.19 The existing capital cost of the existing project was Rs. 5752 Crores. The capital cost for the proposed expansion project is Rs. 119,952 Crores & the capital cost for environmental protection measures is proposed as Rs 4280 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion is Rs 290 Crores/annum. The employment generation from the proposed expansion project is around 9400 employees (6500 permanent & 2900 temporary). The details of cost for environment protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Air Pollution Control & House Keeping measures	177.6	12	3690	300
2.	Water Pollution Control	163	4.5	2320	230
3.	Environment monitoring and management	2.7	0.5	130	13
4.	Solid waste management	-	-	200	10
5.	Greenbelt Development & plantation	0.22	0.1	60	6
6.	Energy Conservation	-	-	240	12
7.	Rain water harvesting	1.5	-	-	-
	Total	345	17.1	6640	572

25.5.20 Total 511.18 ha, i.e. 35% of the total plant area will be developed under greenbelt & plantation. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees/ha. Total no. of 12,77,950 trees will be planted and nurtured in 511.18 ha in 5 years.

25.5.21 It is submitted by the PP that there is no violation under EIA notification 2006/no court cases/no show cause/no direction issued for the instant project of M/s JSOL.

Previous Case of M/s JSPL

- A case was filed in September, 2017 against the existing 6 MTPA Integrated Steel Plant of JSPL at Angul alleging obstruction of Kurdabahali Nallah, dumping earth and waste material over the nallah and constructing the industry over the nallah.
- During the course of hearing, JSPL was able to prove that the diversion of the nallah was necessitated by the situation arising out of heavy rainfall in the year 2011.
- However, the Hon'ble NGT vide its judgement dated 26.11.2021 ruled that the original course of nallah was diverted and the approval was obtained on 14.07.2017.
- Accordingly the Hon'ble NGT imposed cost of Rs. 2 Crores upon the company to be deposited with the Forest Department and the Odisha SPCB to carry out plantation on the bank of the nallah and create a biodiversity park and to do continuous monitoring of water quality and take necessary measures for removal of pollutants, if any.

- Odisha SPCB vide its letter dated 01.12.2022 issued directions to the 6 MTPA integrated steel plant of JSPL. The detailed reply on the action taken by the company was submitted to OSPCB on 16.12.2022. The Regional Officer, SPCB has submitted the compliance report to the directions.

Certified Compliance Report from Regional Office, MoEFCC:

25.5.22 The Status of compliance of earlier EC was obtained from Regional Office, MoEF&CC, Bhubaneswar vide File no.109-1142/22/EPE dated 20.12.2022 in the name of M/s. Jindal Steel Odisha Limited. The details of the observations made by RO in the report dated 20.12.2022 along with its present status as furnished by the PP on 22.03.2023 is given below:

S. N o.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan vide letter dated 22.03.2023
			EC date	Specific	General	
	Continuous online ambient air quality monitoring stations shall be setup at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site).	Continuous online ambient air quality monitoring stations at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site) has not been set up so far. Project has submitted an undertaking to comply with the above condition in this.	14.03.2022	A2.	-	<ul style="list-style-type: none"> • CAAQMS have been ordered for installation at Pellet Plant and HSM and will be installed by 31st March, 2023
2.	Fugitive emission monitored data report is not submitted.	<ol style="list-style-type: none"> 1. In plant control measures for checking fugitive emissions not applicable because project is under construction. 2. Fugitive emission monitored data report is not submitted. 3. But AAQ monitored data is submitted 	14.03.2022	A3		<ul style="list-style-type: none"> • AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits.
3.	Ground water monitoring around the Pellet Plant and Hot Strip Mill shall be carried out regularly and report submitted to the Ministry's Regional office at Bhubaneswar, CPCB and OSPCB.	Groundwater monitoring report of sites around the Pellet Plant and Hot Strip Mill has not been submitted.	14.03.2022	A5.		<ul style="list-style-type: none"> • Groundwater monitoring bore-well will be constructed by March 2023 and quality of ground water will be monitored on quarterly basis thereon. • The report will be submitted with the six-monthly Compliance reports
4.	Dust from the pellet plant shall be reused within the pellet plant. Mill scales shall be sent to pellet plant for reuse. Sludge from ETP of HSM shall be sold to steel plant. Oil and grease recovered from HSMETP shall be given to registered recyclers.	The point is not complied	14.03.2022	A6.		This condition is applicable once Pellet plant and HSM are put in operations. Hence, same will be complied once they are in operation.

S. No.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan vide letter dated 22.03.2023
			EC date	Specific	General	
5.	The company shall develop rain water harvesting structure to harvest the rain water for utilization in the lean season besides recharging the ground watertable	Rainwater harvesting structure is not developed sofar.	14.03.2022	A7.		<ul style="list-style-type: none"> The Roof-top rainwater harvesting is proposed and same can only be developed on completion of the construction of the project. Project has submitted an undertaking to comply with the above point in this regard
6.	Green belt shall be developed in 33% of total area within the plant premises as per the CPCB guidelines in consultation with DFO.	Partial Complied- 33% green belt area is not achieved so far	14.03.2022	A8.		<ul style="list-style-type: none"> The plants are under construction/ implementation phase. Due to the space constraint during construction, green belt of about 15% only could be developed. Balance green belt will be developed in phased manner in coming plantation season (monsoon).
7.	Recommendations made in the CREP guidelines issued for the steel plant shall be implemented.	Recommendations made in the CREP guidelines issued for the steel plant has not been implemented so far.	14.03.2022	A10		There are no specific CREP guidelines for Pellet plant and Rolling mill. Hence not applicable
8.	The company shall undertake continuous monitoring of ambient air quality and stack emissions. The monitored data shall be displayed on the company's website as well as important public places	Continuous monitoring of ambient air quality is not being carried out at present.	14.03.2022	A13.		<ul style="list-style-type: none"> AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits CAAQMS will be installed by 31st March, 2023
9.	Water conservation measures will be undertaken by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill.	Water conservation measures by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill not done so far.	14.03.2022	A14		<ul style="list-style-type: none"> Currently, there is no industrial waste water generation as the Pellet plant and HSM are under construction. During operational stage, the industrial wastewater recycling systems will be implemented to ensure Zero Liquid Discharge from the Pellet plant and HSM.
10	The project authorities must adhere to the stipulations made by the Odisha Pollution Control Board and the State Govt.	Compliance report of Consent to establish has not been submitted so far.			B1.	The compliance report of CTE will be submitted on successful completion of the implementation of the project and before obtaining the Consent to Operate

S. N o.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan vide letter dated 22.03.2023
			EC date	Specific	General	
11	Data on stack emission from the pellet plant and HSM shall be submitted to RO, MoEF&CC and OSPCB once in six months. Atleast 02 continuous ambient air quality stations shall be established in consultation with OSPCB(01 at the pellet plant site and 01 at the HSM site). Data on ambient air quality and stack emission should be regularly submitted to this .Ministry including its Regional Office at Bhubaneswar and the OSPCB, CPCB once in six months.	<ul style="list-style-type: none"> Continuous ambient air quality stations have not been established (01 at the pellet plant site and 01 at the HSM site). Proof of consultation with OSPCB is not submitted. 	14.03.2022		B3	<ul style="list-style-type: none"> AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits CAAQMS will be implemented by 31st March, 2023
12	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 277 (E) 31 st March 2012 or as amended from time to time. The treated waste water shall be recycled/reused.	At present, industrial waste water is not collected and treated so as to conform to the standards prescribed under GSR277 (E) 31 st March 2012 or as amended from time to time.	14.03.2022		B4	<ul style="list-style-type: none"> Currently, there is no industrial waste water generation as the Pellet plant and HSM are under construction. During operational stage, the industrial wastewater recycling systems will be implemented to ensure Zero Liquid Discharge from the Pellet plant and HSM.
13	The project proponent shall also comply with all the environmental protection measures and safeguards as per addendum EIA / EMP report. Further, the company must undertake socio-economic development activities In the surrounding villages like community development programs; educational programs, drinking	The project proponent has partially complied with the environmental protection measures and safeguards as per addendum EIA/EMP report.	14.03.2022		B6	<ul style="list-style-type: none"> The EMP outlined for construction phase is under implementation. EMP for operational phases i.e. installation of Air pollution control equipment, Construction of stacks of adequate height and wastewater recycling systems are under implementation stage. Copy of the EMP outlined in the addendum EIA/EMP report along with the compliance has been submitted

S. N o.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan vide letter dated 22.03.2023
			EC date	Specific	General	
	water supply and health care etc.					

Findings of EAC (Industry-1) sub-committee:

25.5.23 The observations and recommendations of the EAC (Industry-1) sub-committee based on the site visit to M/s Jindal Steel Odisha Limited (JSOL), located at Villages Basudevapur, Panpur, Kaliakata Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada, Tehsil: Chhendipada& Banarpal, District Angul, Odishawas undertaken on 21-22nd February 2023 are as follows:

Observation of Sub-committee during visit:

1. M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I) dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.
2. The Consent to Establish was issued by OSPCB on 26/07/2022 to M/s. JSOL for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill, the construction work is undergoing.
3. No physical clear cut demarcation of the boundaries of M/s. JSPL and JSOL exists at the site. According to the project map shown, the premises of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill of JSOL project and some of the proposed expansion units of JSOL are within the premises of JSPL,
4. The committee noted heavy dust emission from the road used for transporting its raw material and products (length approx. 11.0 Km) connecting to NH-55. As an immediate intervention the road need to be black topped with in no time, the action taken in this regard should be reported to IRO within one month. A detailed action plan to concrete the instant road need to be submitted.
5. As submitted by the project proponent, civil, structural work are carrying out, Pellet plant and Hot Strip mill. The photographs depicting in the ongoing construction activity are submitted.
6. The overall housekeeping at the site needs improvement.
7. As per EC Continuous online ambient air quality monitoring stations shall be setup at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site). PP has submitted that CAAQMS have been ordered for installation at Pellet Plant and HSM and will be installed by 15th March, 2023.
8. PP submitted following response with respect to the issues raised in the public representations dated 13.01.2023:

S No.	Points Raised in the Complaint dated 13.01.2023	Response											
1.	JSPL – Angul is not backfilling coal mines rather filling its own acquired low laying area (Condition-IV)	<ol style="list-style-type: none"> 1. The linked coal mine Utkal B1 was de-allocated vide order dated 24.09.2014 of Hon’ble Supreme Court and thus the mine could not be operationalized. 2. Coal India (Mahanadi Coalfield Limited) from time to time has informed that no abandoned coal mine is available. 3. Fly ash utilisation is regulated as per the provisions of the Fly ash Utilization notification of MoEF&CC.JSPL is utilising ash in line with the same. 											
2.	Green belt supposed to be developed in 33% of area (of total acquired land within and around plant area as per CPCB guideline in consultation with DFO	<p>Green belt has been developed in 33% area in the existing plant boundary. The details are as below:</p> <table border="1"> <tr> <td>Total plant area</td> <td>2213 acres</td> <td>-</td> </tr> <tr> <td>Township</td> <td>310 acres</td> <td>-</td> </tr> <tr> <td>Green belt/plantation area in the plant area</td> <td>702 acres</td> <td rowspan="2">33.2 % of the project area</td> </tr> <tr> <td>Plantation outside plant area in accordance with recommendation of SPCB</td> <td>165 acres</td> </tr> </table>	Total plant area	2213 acres	-	Township	310 acres	-	Green belt/plantation area in the plant area	702 acres	33.2 % of the project area	Plantation outside plant area in accordance with recommendation of SPCB	165 acres
Total plant area	2213 acres	-											
Township	310 acres	-											
Green belt/plantation area in the plant area	702 acres	33.2 % of the project area											
Plantation outside plant area in accordance with recommendation of SPCB	165 acres												
3.	All the affected persons shall be suitably compensated and rehabilitated as per the norms and guidelines used by the state govt. (Condition-XV)	<ul style="list-style-type: none"> • In the area already acquired by JSPL, the total number of houses identified for resettlement were 285 and the same converted to around 699 families. JSPL has completed the R&R of 355 families in Basudevapur, Panpur, Kaliakata, Sankerjan, Paripara, Jamunda, Jarada, Jamunda Jungle, Badkerjang Jungle villages and the R&R of the remaining 344 families in under process. • The R&R of these families is under process as the majority of the land is yet to be handed over to JSPL and is still under the possession of IDCO. 											
4.	Status (Year-wise since inception) of Socio-economic developmental activities in periphery villages (Condition –VI)	<ul style="list-style-type: none"> • The Company has spent about Rs. 205 Crores on Socio-economic developmental activities in the area. The year-wise break –up is submitted. 											
5.	Expenditure of Rs. 2000 Cr towards capital cost and Rs. 100 Cr for Environmental Pollution Control	<ul style="list-style-type: none"> • JSPL has already spent Rs. 1480 Crores as capital expenditure for Environmental Pollution Control at its 6 MTPA Steel plant. The details of the same are attached as Annexure • Note that the Pellet plant and Hot Strip Mill have been transferred to JSOL and the separate EMP for these plants is for Rs. 345 Crores as Capital expenditure. 											
6.	Stop flow of nandira river by JSPL, Angul	<ul style="list-style-type: none"> • The Company has only diverted the flow of the nalah without stopping the free flow of the stream. 											

S No.	Points Raised in the Complaint dated 13.01.2023	Response
		<ul style="list-style-type: none"> • The permission for the same was granted by the Department of Water Resources, Govt. of Odisha vide letter dated 14.07.2017. • The NGT through its order has adjudged that the company has diverted the stream for which the approval was granted pursuant to diversion.
7.	<p>Forceful encroachment of panchayat road by JSPL causing dust pollution & emission from heavy commercial vehicles. ROSPCB has observed dust pollution causing for this road. They have recommended to black top the road with immediate effect to stop dust pollution.</p>	<ul style="list-style-type: none"> • There is no encroachment of any Panchayat Road by JSPL. The road is inside the JSPL acquired area. The Company undertakes to black top the road, once the layout of the proposed expansion project is approved by MOEF&CC.
8.	<p>Leaking / exit of poisonous gas (with one particular thick pungent smell / odour) to open air</p>	<ul style="list-style-type: none"> • The Synthesis Gas produced from the Coal Gasification Plant is conveyed to the DRI plant through leak-proof pipelines. • There is no leakage of this gas. • Gas detectors of CO have been installed at CGP & DRI. • Portable gas detectors have also been provided. • Ammonia gas analysers have also been installed at CGP and the concentration of ammonia in ambient air does not exceed the ambient standards. • Hence, the complaint is false and there is no gas leakage.
9.	<p>Health related issues due to JSPL Angul pollution</p>	<ul style="list-style-type: none"> • The District health authority has not reported any specific health related issues in the area. • JSPL through its CSR initiatives has been conducting regular Health Camps/ Specialist Health Camps in the surrounding villages of the plant area and no specific adverse health impact has been reported so far.
10.	<p>Discharge of contaminated water from fly ash pond to the Dhenkandianala</p>	<ul style="list-style-type: none"> • It is submitted that there has been no discharge of contaminated water from the ash pond. • Moreover, ash water from the ash dyke is collected in secondary pond. • From the secondary pond the water is recycled to ash handling plant of power plant. • The Company has also constructed a tank to collect any seepage water and provision has been made to recycle the same to the secondary pond.

S No.	Points Raised in the Complaint dated 13.01.2023	Response
11.	Blocking of natural resources (ever flowing stream)	<ul style="list-style-type: none"> • There has been no blocking of any natural stream by the Company. • The Company has only diverted the flow of the nalah without stopping the free flow of the stream. • The permission for the same was granted by the Department of Water Resources, Govt. of Odisha vide letter dated 14.07.2017.
12.	Installation of slag crusher at close proximity of existing habitat (subarnapur, sudhabani, banardiha&sakasingha of Badakerjang village)	<ul style="list-style-type: none"> • The slag processing unit of steel melting shop are located inside the plant area. • No village/ hutment is located near the slag crushing area
13.	Sprinkling of waste water from CGP on road	Treated water from the Bio-ETP plant conforming to the existing effluent standards is used for sprinkling of road within the plant area.

9. Action taken by SPCB on representation received.

Time Line of redressed of public complaint received against the PP by SPCB, Odisha

Date	Events
13.10.2022	Public complaint filed by Sri Satam Patnaik, Nodal Person, Shri Bala Krushna
14.11.2022	Pattanaik Krushak Parivar, Badakerjang, Angul nd through e-mail regarding
15.11.2022	Violation of pollution norms by JSPL- Angul by not complying with SPCB &
21.11.2022	CPCB guidelines, REC commendations & guidelines
11.11.2022	Industry was inspected by HO, SPCB, Odisha in connection with compliance verification of issues raised in personal hearing conducted on 14.10.2022.
18.11.2022	Industry was inspected by Regional Office, SPCB, Angul, Odisha to attend the public complaint.
01.12.2022	Based on reports of inspection conducted by HO, SPCB, Odisha on 11.11.2022 and inspection conducted by RO, SPCB, Angul on 18.11.2022, Direction U/S 31A of the Air (PCP) Act, 1981 and U/S 33A of the Water (PCP) Act, 1974 by the Board vide letter No.22424.
16.12.2022	Industry has submitted reply against the direction issued by the Board.
04.01.2023& 15.02.2023	Preliminary visit were conducted by the RO, SPCB, Angul to verify the compliance of direction issued against the industry.
22.02.2023	Final visit was conducted by the RO, SPCB, Angul to verify the compliance of direction issued against the industry.
01.03.2023	Based on the report of inspection conducted on 22.02.2023, the SPCB has called the industry for personal hearing on 06.03.2023.

10. Response of project proponent to the observations of the EAC and remarks of EAC sub committee is as below:

S No.	EAC observation	Response of Project Proponent, JSOL				Remarks of the Sub-committee																																													
1.	<p>The PP reported that the total land required by JSOL for expansion project is about 1460.51 ha (3609 acres). Out of the total 3609 acres, 2726.61 acres area is already acquired by JSPL and the same is being sub-leased to JSOL. Revenue and Disaster Management Department, Govt. of Odisha vide its letter dated 21.06.2022 has allowed JSPL to sub-lease the land measuring 2120.325 acres to JSOL for setting up of 19.2 MTPA Steel plant and 12.5 MTPA Cement plant. The additional area of 882.12 acres will be acquired by JSOL. Letter has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JSOL/378/21/3248 dated 09.09.2022 for allotment of additional land to JSOL for setting up the plant at Angul Odisha after assessment by the High Level Clearance Authority (HLCA) in its 28th meeting held on 21.12.2021. The EAC deliberated on the land acquisition status and is of the view that the land status is not very clear and still not completely transferred in the name of JSOL, permissions pending at different levels.</p>	<p>Land Acquisition Status</p> <p>a) The total land required for the project is 1460.51 ha i.e. 3608.73 acres.</p> <p>b) The total land involves already acquired land by Jindal Steel & Power Ltd. (JSP) (which has been majorly sub-leased to JSO) and some additional fresh land has to be acquired by JSO.</p> <p>c) The current status of the land for the project is as under:</p>				<p>As per details submitted by PP 202.73 acres of land under 6 MTPA Steel Plant that is in EC dated 14/03/2022 of JSPL is being transfer as part of the JOSL expansion proposal. EC amendment in this regard need to be furnished. Additionally, 1831-acre vacant land of JSPL project is being sub leased to JSOL</p> <p>It was told by PP that this sub-leasing will reduce the approved area of JSPL as per ECs for which formal permission has not been obtained from MoEF&CC</p> <p>Status of area with IDCO yet to be transferred to be is reported by PP as 550 acres, PP need to submit documental evidence regarding this.</p> <p>PP may submit total documental evidence for total land in possession as per OM dated 7th October, 2014</p>																																													
		<table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">Land details as on date</th> <th colspan="2">Details after expansion</th> <th rowspan="2">Remarks</th> </tr> <tr> <th>JSPL</th> <th>JSOL</th> </tr> </thead> <tbody> <tr> <td>JSPL (6 MTPA Steel Plant)</td> <td>2213</td> <td>2010.27</td> <td>202.73</td> <td rowspan="2">Govt. of Odisha vide its letter dated 21.06.2022 allowed JSP to sub-lease the land measuring 2120.325 acres to JSO</td> </tr> <tr> <td>JSO (Pellet Plant & HSM)</td> <td>86.68</td> <td>0</td> <td>86.68</td> </tr> <tr> <td>Area under possession of JSP to be sub-leased</td> <td>1831</td> <td>0</td> <td>1831</td> <td></td> </tr> <tr> <td>NH Connectivity</td> <td>56.2</td> <td>0</td> <td>56.2</td> <td></td> </tr> <tr> <td>Area with IDCO</td> <td>550</td> <td>0</td> <td>550</td> <td></td> </tr> <tr> <td>Township</td> <td>310</td> <td>310</td> <td>0</td> <td>-</td> </tr> <tr> <td>Area to be acquired</td> <td>882.12</td> <td>0</td> <td>882.12</td> <td>IPICOL vide no. CGM/SLN A/JSOL/378/21/3248 dated 09.09.2022 has recommended for allotment of additional land to JSOL for setting up the plant at Angul, Odisha after assessment by the High-Level Clearance Authority (HLCA)</td> </tr> <tr> <td>Total</td> <td>5929</td> <td>2320.27</td> <td>3608.73</td> <td></td> </tr> </tbody> </table>					Land details as on date	Details after expansion		Remarks	JSPL	JSOL	JSPL (6 MTPA Steel Plant)	2213	2010.27	202.73	Govt. of Odisha vide its letter dated 21.06.2022 allowed JSP to sub-lease the land measuring 2120.325 acres to JSO	JSO (Pellet Plant & HSM)	86.68	0	86.68	Area under possession of JSP to be sub-leased	1831	0	1831		NH Connectivity	56.2	0	56.2		Area with IDCO	550	0	550		Township	310	310	0	-	Area to be acquired	882.12	0	882.12	IPICOL vide no. CGM/SLN A/JSOL/378/21/3248 dated 09.09.2022 has recommended for allotment of additional land to JSOL for setting up the plant at Angul, Odisha after assessment by the High-Level Clearance Authority (HLCA)	Total	5929	2320.27	3608.73	
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S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
		It is submitted that about 76% of the total required project area is already acquired.	
2.	The EAC noted that M/s JSPL has taken initially EC in 2007 and obtained various amendments in the EC from time to time. Further, the partial transfer of EC was also obtained from M/s JSPL to M/s JSOL in March 2022. In this regard, if M/s JSPL is sub-leasing the land to M/s JSOL which is a part of EC of M/s JSPL, then in this regard there is a need for Modification in EC of M/s JSPL also. In this regard, PP is requested to provide the factual details on this land issues.	<ul style="list-style-type: none"> The Environmental Clearance amendment dated 14.03.2022 granted to M.s Jindal Steel & Power Ltd. (JSPL) for deletion of Pellet plant and Hot Strip Mill from its 6 MTPA Integrated Steel Plant at Angul specifies the land for its existing steel plant as 2213 acres and the land for existing facilities of Jindal Steel Odisha Limited (JSOL) is 85.68 acres. It is submitted that the after the sub-leasing/ transferring of land from JSPL to JSOL, the land of the existing Steel plant of 6 MTPA of JSPL will be revised to 2010.27 acres. It is submitted that the amendment to EC of JSPL w.r.t. change in the land may be issued by MOEF&CC, simultaneous to the EC for proposed expansion of JSOL. 	It is submitted that for the amendment to EC of JSPL w.r.t. change in the land, PP need to apply in the requisite format through parivesh. It is requested to apply in the specific form with requisite document for amendment in EC.
3.	The EAC made a note of the fact that the proposed expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010, however the same has not been transferred in the name of M/s. JSOL. The PP is requested to take necessary action for transfer of FC in the name of M/s JSOL.	<ul style="list-style-type: none"> The application for transfer of FC for 332.64 acres has been submitted to Divisional Forest Officer, Angul vide letter dated 16.09.2022. The Company has further submitted the undertaking w.r.t. the compliance to the terms and conditions on which the FC was granted by MoEF&CC. The transfer of FC to JSOL is under process. 	It is requested to submit the latest status of Forest clearance.
4.	The EAC noted that the already acquired areas to be sub-leased to JSOL involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. PP has reported that majority of project displaced families (PDFs) are interested to receive one	<ul style="list-style-type: none"> In the area already acquired by JSPL, the total number of houses identified for resettlement were 285 and the same converted to around 699. The families JSPL has completed the R&R of 355 families and the R&R of the remaining 344 families in under process. The R&R of these families is under process as no activities in these areas have been undertaken by JSPL. Further, additional about 100 nos. of PDFs have been identified in the area to be acquired by JSOL. <p>The details of the R&R in the JSPL Plant area are as under:</p>	As per the details submitted by the PP, JSOL Project area R&R of 444 families are remaining which is under process. A time bound action plan and commitment in this regard need to be submitted by the PP.

S No.	EAC observation	Response of Project Proponent, JSOL					Remarks of the Sub-committee																																																																																			
	<p>time full & final R&R package for their self-settlement. Remaining PDFs shall be resettled in Resettlement & Rehabilitation colonies for which lease proposal for Resettlement & Rehabilitation colony is under process by the District Administration. The EAC is of the view that since this is one of its kind project, involving large capital investment, it is imperative that R&R issues do not arrive during the execution of the project also considering the fact that there are approx. 109 villages in 10 km radius. The R&R picture needs to be clear at the forefront.</p>	<table border="1"> <thead> <tr> <th>JSPL Plant Area</th> <th>Village</th> <th>Houses (Original family)</th> <th>PDFs (Extended family)</th> <th>Resettled</th> </tr> </thead> <tbody> <tr> <td>Area - (Existing Plant Area)</td> <td>Basudevpur</td> <td>40</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>Panpur</td> <td>32</td> <td>63</td> <td>63</td> </tr> <tr> <td></td> <td>Kaliakata</td> <td>23</td> <td>50</td> <td>50</td> </tr> <tr> <td></td> <td>Sankerjang</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td></td> <td>Paripara</td> <td>1</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>Jamunda</td> <td>2</td> <td>7</td> <td>7</td> </tr> <tr> <td></td> <td>Jarada</td> <td>7</td> <td>16</td> <td>16</td> </tr> <tr> <td colspan="2">Total Land</td> <td>106</td> <td>289</td> <td>289</td> </tr> </tbody> </table>	JSPL Plant Area	Village	Houses (Original family)	PDFs (Extended family)	Resettled	Area - (Existing Plant Area)	Basudevpur	40	150	150		Panpur	32	63	63		Kaliakata	23	50	50		Sankerjang	1	1	1		Paripara	1	2	2		Jamunda	2	7	7		Jarada	7	16	16	Total Land		106	289	289	<p style="text-align: center;">R&R Status in JSOL Project area (Village-wise)</p> <table border="1"> <thead> <tr> <th>JSO Project Area</th> <th>Village</th> <th>Houses</th> <th>PDFs</th> <th>Resettled</th> <th>Balance</th> </tr> </thead> <tbody> <tr> <td>Area sub-leased to JSO (2120 Ac)</td> <td>Jamunda Jungle</td> <td>37</td> <td>107</td> <td>35</td> <td>72</td> </tr> <tr> <td></td> <td>Badakerjang Jungle (Possession given by IDCO in 2019 and R&R under progress)</td> <td>57</td> <td>155</td> <td>31</td> <td>124</td> </tr> <tr> <td>Area with IDCO to be leased to JSO (550 Ac)</td> <td>Badakerjang Jungle</td> <td>48</td> <td>148</td> <td>Nil</td> <td>148</td> </tr> <tr> <td>Additional land to be acquired by JSO (882 Ac)</td> <td>Badakerjang Jungle (405 Ac)</td> <td>37</td> <td>100</td> <td>Nil</td> <td>100</td> </tr> <tr> <td></td> <td>Jamunda Jungle, Kaliakatta, Jamunda, Jarada</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> </tr> <tr> <td colspan="2">Total</td> <td>179</td> <td>510</td> <td>66</td> <td>444</td> </tr> </tbody> </table>	JSO Project Area	Village	Houses	PDFs	Resettled	Balance	Area sub-leased to JSO (2120 Ac)	Jamunda Jungle	37	107	35	72		Badakerjang Jungle (Possession given by IDCO in 2019 and R&R under progress)	57	155	31	124	Area with IDCO to be leased to JSO (550 Ac)	Badakerjang Jungle	48	148	Nil	148	Additional land to be acquired by JSO (882 Ac)	Badakerjang Jungle (405 Ac)	37	100	Nil	100		Jamunda Jungle, Kaliakatta, Jamunda, Jarada	00	00	00	00	Total		179	510	66	444
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5.	<p>Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata,</p>	<p>The Sub-Committee visited the nearest village, Badkerjang, to the project site during its visit to the project site to understand the ground situation and sensitivity.</p>	<ul style="list-style-type: none"> The nearest village, Badkerjang, to the project site was visited 																																																																																							

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	<p>Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada falls at the project Site. There are approx. 109 villages in 10 km radius study area of the project site. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation</p>		<p>by the Sub-committee to understand the ground situation and sensitivity.</p> <ul style="list-style-type: none"> • It was observed that the village is about 1 Kms from the project site. The village is connected to the State Highway by 2-lane road. • PP need to strengthen green belt all around the plant area to reduce the dust pollution. • Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
6.	<p>Further, PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.</p>	<ul style="list-style-type: none"> • The proposed project area is encompassed by the following villages: Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada. The Company has proposed to adopt around 39 villages. The Villages proposed to be adopted are Parang, Bhubanpur, Ramadiha, R&R Colony, Pitabali, Nisha, Kaliakata, Natada, Ambapal, Mahitala (Badamahitala& Sana Mahitala), R & R Colony , Mahitala (New Basudevpur, New Panpur, New Kaliakata, New Raijharan, New Golagadia), Tukuda, Raijharan, Golagadia, Kaunsidhipa, Similisahi, Jarasingha, Old Jarasingha, Benagadia, Majhika, Bedasar, Sanakerjang, Golabandha, Dabardhua, Pathuria, Beherabhuin, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Sanajamunda, Jarada, Paripara, Santarapur, Dudhiabeda, Maratira, Tubey, Kulei, Derajang and Subarnapur • The Village Adoption Program has been prepared in alignment with the Sustainable Development Goals (SDGs). The detailed village-wise plan is submitted. 	<p>PP need to revise the PH action plan and include support to the famers in the nearby villages in consultation with horticulture department.</p>
7.	<p>KurdabhaliNala is present at the plant site. Parang Minor Irrigation project (MIP) and NandiraJor are adjacent to the project site.</p>	<ul style="list-style-type: none"> • M/s Jindal Steel & Power Ltd. (JSPL) has diverted the KurdabhaliNalah without affecting the flow of water to the Parang MIP. The permission to divert the nalah was granted by Department of Water Resource, Govt. of Odisha vide its letter No. 16687 dated 14.07.2017. 	<p>PP need to submit the details of Drainage Conservation plan and action already implemented.</p>

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
	<p>Sixteen water bodies including Nala, reservoirs and canal are within the study area. The EAC is of the opinion that water bodies are required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures is not submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.</p>	<ul style="list-style-type: none"> • It is pertinent to mention that the water bodies in the study area will not be impacted due to the proposed expansion project of JSOL. <p><u>Drainage Conservation:</u></p> <ol style="list-style-type: none"> 1. Upstream of KurdabhaliNalah passes through the project area falling in Badkerjang Jungle which is proposed to be acquired. As per the recommendations of the State Forest Department, it is proposed to develop the plantation and green belt in the Badkerjang Jungle area all- along the Nalah. The green zone will be maintained without any sort of fencing/ boundary wall. 2. The Nalah originates from the Durgapur Reserve Forest and no negative impact has been envisaged on the catchment area of the Nalah. 3. The part of the nalah passing through the plant has already been diverted without disturbing the natural drainage of the nalah. 4. Surface run-off in the project area will be collected in the designated water ponds. Based upon the average rainfall in the region, it is proposed to develop ponds for harvesting rainwater. 5. The ponds will be de-silted on regular basis to maximize the retention period. 6. The harvested water will be used for green belt/ plantation, sprinkling, tyre washing, slag quenching, etc. <p><u>Soil Conservation and Erosion Control Measures:</u></p> <ol style="list-style-type: none"> 1. All earth work will be completed in such a way so that the soil erosion and carryover of the materials in other areas are protected. 2. Excavated top soil will be stored properly at designated place to avoid wind-blown erosion and shall be reused for landscape development and greenbelt development and its maintenance. 3. Proper disposal of construction debris will be maintained so that top soil is not contaminated at the construction place. 4. The greenbelt and plantation will be developed in 511 ha land which will prevent the soil erosion. 5. The packaging materials which may consist of wooden boxes and jute wrappers will be stored at suitable place and disposed off suitably. 6. Horticulturists will be engaged to ensure soil quality improvement in the plant area, by adequate manuring and fertilizing. 7. Soil samples will be collected and tested at regular intervals from the nearby areas. This helps in mitigation of any harmful impact on soil due to the operational activity, if any. 8. No solid or liquid discharge will be disposed off in soil during construction or operational period. <p><u>Rainwater Harvesting Plan:</u></p>	<p>PP has to provide Garland drains of adequate capacity all around the Project Site.</p>

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
		<p>The design and calculations of the rainwater harvesting management scheme are submitted.</p> <p>The Contour Map marking the drainage disposal system is submitted.</p>	
8.	<p>The PP/Consultant presented the drone video of the project site and the EAC is of the opinion that drone videography do not give complete picture of the site. Also, the adjacent site of JSPL is also not covered in the video which is also essential since, existing project is a part acquired from JSPL.</p>	<ul style="list-style-type: none"> The drone video of the project area along with the existing plants will be ready and presented to the EAC during the next meeting. The Sub-Committee formed visited the project site as well as the existing area of JSPL on 21.02.2023. 	<p>A drone videography giving complete picture of the site need to be presented in EAC meeting.</p>
9.	<p>The EAC deliberated on the baseline data and observed that the maximum values of PM10 and PM2.5 are very high. The existing project is still in construction phase and the incremental GLC may result in higher emissions after implementation of the proposed project.</p>	<ul style="list-style-type: none"> JSOL is undertaking construction of the Pellet Plant and the Hot Strip Mill due to which values of PM2.5 and PM10 in the core zone are recorded to be on the higher side. The reason for higher values of particulate matter in the buffer zone can be attributed to the fodder burning of solid fuel by villagers as a source of heating during the winter season. However, it is pertinent to mention that the incremental Ground level concentrations due to the project's impact was predicted at these locations within the buffer zone and was estimated to be 2.32 to 10.76 µg/m³. The ambient air quality concentration for all parameters will remain within the NAAQ standards at all locations after the proposed expansion project. <p>Moreover, the company is/will be implementing mitigation measures to minimize the same as stated below.</p> <ul style="list-style-type: none"> High efficiency pollution control equipments will be implemented and designed to control the PM emissions within 30 mg/Nm³ from stacks. Water sprinkling is/will be carried out in the plant at suitable intervals to control dust generation. Fugitive dust emissions will be arrested by water fogging with compressed air that will be the dry fogging (DF) system. Dust suppression & extraction system will be adopted to control the fugitive dust emanated during unloading operations. The tyre washing systems at designated locations inside the plant premises will be installed, which would help to reduce fugitive dust associated with vehicle movements. 35% of the total area will be developed as greenbelt & plantation within premises. Avenue plantations around the plant premises. Covered storage yards will be provided. All internal roads will be metal topped and well maintained. Vehicles having construction materials are/will be covered with tarpaulin. 	<p>Sufficient technical steps including water fogging need to be adopted for decreasing fugitive emission during the contention phase of the project.</p> <p>High efficiency state of the art pollution control equipment's shall be implemented in all the facility while in operations, stack PM emissions in should be less the 30 mg/Nm³.</p>

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee																																																																														
		<ul style="list-style-type: none"> All material transfer points relate to dust suppression will be provided with water nozzles to avoid the pollution. Proper maintenance of vehicles and machineries are/will be done and combustion efficiency of vehicles & machineries will be tested regularly. 																																																																															
10.	<p>The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.</p>	<ul style="list-style-type: none"> Modelling has been done using AERMOD model factoring in the Elevation Profile of the study area. The incremental GLCs at the baseline monitoring locations is given in below table: <table border="1"> <thead> <tr> <th>S No.</th> <th>AAQ Sampling location</th> <th>Parameters</th> <th>Baseline (mg/m³)</th> <th>Incremental GLC (mg/m³)</th> <th>Post project AAQ (mg/m³)</th> </tr> </thead> <tbody> <tr> <td>SA1</td> <td>Plant Site – Existing Plant</td> <td>CO (mg/m³)</td> <td>1.11</td> <td>0.048</td> <td>1.158</td> </tr> <tr> <td>SA2</td> <td>Plant Site – Proposed Plant</td> <td>CO</td> <td>1.14</td> <td>0.052</td> <td>1.192</td> </tr> <tr> <td>SA3</td> <td>Plant Site – Centre of total Plant Area Near Village Barodia</td> <td>CO</td> <td>0.81</td> <td>0.046</td> <td>0.856</td> </tr> <tr> <td>SA4</td> <td>Village Golabandha</td> <td>CO</td> <td>0.82</td> <td>0.0412</td> <td>0.861</td> </tr> <tr> <td>SA5</td> <td>Village Rantalei</td> <td>CO</td> <td>0.86</td> <td>0.010</td> <td>0.87</td> </tr> <tr> <td>SA6</td> <td>Near Village Dubamolia</td> <td>CO</td> <td>0.45</td> <td>0.010</td> <td>0.46</td> </tr> <tr> <td>SA7</td> <td>Village Mundasahi</td> <td>CO</td> <td>0.89</td> <td>0.013</td> <td>0.903</td> </tr> <tr> <td>SA8</td> <td>Village Nisha</td> <td>CO</td> <td>0.73</td> <td>0.015</td> <td>0.745</td> </tr> <tr> <td>SA9</td> <td>Village Maratira</td> <td>CO</td> <td>0.73</td> <td>0.021</td> <td>0.751</td> </tr> <tr> <td>SA10</td> <td>Village BarhaKerjang</td> <td>CO</td> <td>0.76</td> <td>0.055</td> <td>0.815</td> </tr> <tr> <td>SA11</td> <td>Village Jarada</td> <td>CO</td> <td>0.4</td> <td>0.032</td> <td>0.432</td> </tr> <tr> <td>SA12</td> <td>Angul Town</td> <td>CO</td> <td>1.42</td> <td>0.020</td> <td>1.440</td> </tr> </tbody> </table> <p>The resultant estimated concentration at all twelve receptors will be within the NAAQ standard after the incremental GLC due to the project.</p>	S No.	AAQ Sampling location	Parameters	Baseline (mg/m ³)	Incremental GLC (mg/m ³)	Post project AAQ (mg/m ³)	SA1	Plant Site – Existing Plant	CO (mg/m ³)	1.11	0.048	1.158	SA2	Plant Site – Proposed Plant	CO	1.14	0.052	1.192	SA3	Plant Site – Centre of total Plant Area Near Village Barodia	CO	0.81	0.046	0.856	SA4	Village Golabandha	CO	0.82	0.0412	0.861	SA5	Village Rantalei	CO	0.86	0.010	0.87	SA6	Near Village Dubamolia	CO	0.45	0.010	0.46	SA7	Village Mundasahi	CO	0.89	0.013	0.903	SA8	Village Nisha	CO	0.73	0.015	0.745	SA9	Village Maratira	CO	0.73	0.021	0.751	SA10	Village BarhaKerjang	CO	0.76	0.055	0.815	SA11	Village Jarada	CO	0.4	0.032	0.432	SA12	Angul Town	CO	1.42	0.020	1.440	<p>PP need to clarify whether the CO modeling is including the transport emissions or not.</p>
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11.	<p>Six Schedule-I species were found within 10 km radius of the study area of the plant site during biological study. It is reported that as recommended by the PCCF & HOFF, Govt. of Odisha, a site-specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF</p>	<ul style="list-style-type: none"> The draft Wildlife Conservation Plan has been prepared by the Divisional Forest Officer, Angul. The same has been forwarded vide Memo no. 374/ 2022/DRP dated 16.01.2023 to the PCCF, Wildlife for the approval. The PCCF (Wildlife) & Chief Wildlife Warden, Odisha vide its letter dated 02nd March, 2023 has convened a meeting and requested the DFO to make presentation on the Wildlife Conservation plan on 09th March, 2023. The Company undertakes to deposit the amount earmarked for conservation of forest and wildlife. 																																																																															

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
	<p>&HoFF, in line with the guidelines of the Govt. of Odisha.</p>		
12.	<p>The EAC deliberated on the CCR dated 20.12.2022 obtained from IRO, MoEF&CC and observed that 13 observations have been raised by the IRO majorly involving CAAQMS installation, Fugitive emissions, groundwater monitoring, dust and ETP sludge, rainwater harvesting, greenbelt, CREP guidelines, water conservation, wastewater management etc. Also, PP has reported that they have submitted the ATR just now to IRO but the closure report of IRO is not obtained. Compliance of existing EC conditions is essential for an expansion project.</p>	<ul style="list-style-type: none"> The point-wise response by the Company is submitted. 	<p>The closure report of IRO is not obtained. The same need to submitted.</p> <p>Status Update - The Copy of the updated status on the Action Taken Report submitted by the IRO, Bhubaneswar on 02.03.2023.</p>
13.	<p>It was also apprised to the EAC members that Ministry is in receipt of a representation dated 13.01.2023 against the project requesting for “Stay Order” on “Environment Clearance” for proposed phase-2 expansion of JSPL-Angul till 100% execution of all guidelines, policies, terms & conditions pertaining to Environment Clearance given to JSPL-Angul dated 22nd Feb’2007, Consent to Operate orders issued by ROSPCB, proceedings issued by District Administration. The EAC is of the opinion that since the issues raised are pertaining to proposed project, the complaint shall be shared</p>	<ul style="list-style-type: none"> The point-wise response of the company to the complaint is submitted 	<p>Ministry is in receipt of number of representations against the existing project of JSPL.</p> <p>SPCB has taken field verification regarding the complaints, Direction has been issued by SPCB under Air and Water Act. PP need to submit the detailed action taken in this regard.</p> <p>IRO MoEFCC was requested to provide the factual report in regarding the complaints receded, the factual report is still awaited.</p>

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	<p>with the project proponent for their pointwise reply. The EAC advised the Ministry to forward the representation to project proponent for their justification/clarification. Also, it is pertinent to undertake site visit to understand the issues in detail. In this context, representation has been forwarded to PP. It was also informed to the EAC that the IRO MoEFCC was requested to provide the factual report in this regard.</p>																																		
14.	<p>The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the action plan does not justify the addressal of issues effectively. PP needs to revise the action plan in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.</p>	<ul style="list-style-type: none"> As advised by the Hon'ble Committee, the Company has revised the budget earmarked for Corporate Environmental responsibility and about Rs. 555 crores have now been earmarked under CER based upon the need-based analysis and the points raised during Public Hearing. The detailed activity wise plan is submitted. 	<p>PP has submitted revise action plan, it should be presented and deliberated in EAC.</p>																																
15.	<p>The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that that the EMP cost do not commensurate with the project cost. The EMP measures and associated cost needs to be revisited.</p>	<p>As advised by the Hon'ble Committee, the Company has revised the cost of Environment Management Plan from 3.5% to approx. 6.0 % of the total project cost. The revised EMP cost is as under:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Head</th> <th>Cost (in crore INR)_ CAPEX</th> <th>OPEX</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Air Pollution Control</td> <td>3,690</td> <td>300</td> </tr> <tr> <td>2</td> <td>Water Treatment</td> <td>2,320</td> <td>230</td> </tr> <tr> <td>3</td> <td>Solid Waste Management</td> <td>200</td> <td>10</td> </tr> <tr> <td>4</td> <td>Greenbelt</td> <td>60</td> <td>6</td> </tr> <tr> <td>5</td> <td>CEMS, CAQMS, Flow meters, EMS, Laboratory, etc.</td> <td>130</td> <td>13</td> </tr> <tr> <td>6.</td> <td>Energy Conservation Measures</td> <td>240</td> <td>12</td> </tr> <tr> <td></td> <td>Sub-total</td> <td>6640</td> <td>572</td> </tr> </tbody> </table>	S. No.	Head	Cost (in crore INR)_ CAPEX	OPEX	1	Air Pollution Control	3,690	300	2	Water Treatment	2,320	230	3	Solid Waste Management	200	10	4	Greenbelt	60	6	5	CEMS, CAQMS, Flow meters, EMS, Laboratory, etc.	130	13	6.	Energy Conservation Measures	240	12		Sub-total	6640	572	<p>PP has submitted the revised EPM, the details need to presented in EAC</p>
S. No.	Head	Cost (in crore INR)_ CAPEX	OPEX																																
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		7.	CER	555	-																					
			Total	7195																						
16.	The PP has reported that project involves tree felling in the proposed site. PP has not submitted the details of the tree felling and status of permission from the Competent Authority. Thus, it is important to understand the nature of the land.	<ul style="list-style-type: none"> The approximate number of trees in the areas which will be disturbed/ cleared for development for plant facilities are about 3853. The Company has tree trans-planter machines to and it is proposed to transplant about 2500 nos. of trees to locations wherein the green belt has been proposed. The trees falling in the area wherein the green belt has been proposed will not be disturbed and will be kept intact. The permission for tree felling will be taken from the Forest department as and when the project activities will start. 				PP need to submit permission form the component authority regarding felling of trees.																				
17.	The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.	<ul style="list-style-type: none"> Contour map with drainage disposal system is submitted. The design calculations of the rainwater harvesting are submitted. 				Project proponent has submitted contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.																				
18.	The PP has not submitted the details of the existing greenbelt in the land to be sub leased from M/s. JSPL. The Committee deliberated that EC was granted long back in 2007 to JSPL and greenbelt should have been developed by now. Therefore, PP is required to submit the details of the greenbelt along-with the photographs.	<ul style="list-style-type: none"> The EC amendment dated 14.03.2022 granted to M/s Jindal Steel & Power Ltd. (JSPL) for deletion of Pellet plant and Hot Strip Mill from its 6 MTPA Integrated Steel Plant at Angul specifies the land for its existing steel plant as 2213 acres and the land for existing facilities of Jindal Steel Odisha Limited (JSOL) is 85.68 acres. The 33% of the total area (2213 acres+310 acres= 2523 acres) has been developed as the Green belt by the Company. Details of the green belt developed by the company is given below: <table border="1"> <thead> <tr> <th>Location</th> <th>Area</th> <th>Number of plantations</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Existing plant area</td> <td>2213 acres</td> <td>-</td> <td>-</td> </tr> <tr> <td>Township</td> <td>310 acres</td> <td>-</td> <td>-</td> </tr> <tr> <td>Green belt/ plantation area in the plant area</td> <td>702 acres</td> <td>5.56 lakhs</td> <td>33.2 % of the project area</td> </tr> <tr> <td>Plantation outside plant area</td> <td>165 acres</td> <td>1.54</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> Copy of the Photographs of the existing Green belt are submitted. 				Location	Area	Number of plantations	Remarks	Existing plant area	2213 acres	-	-	Township	310 acres	-	-	Green belt/ plantation area in the plant area	702 acres	5.56 lakhs	33.2 % of the project area	Plantation outside plant area	165 acres	1.54		<p>PP need to take formal approval to develop Green belt in 33 % of total area within the plant premises i.e JSPL surrounding existing facilities of JSOL. Since the EC for the Existing plant area is 2213 acres, 33% of it need to be green belt. PP need to submit the details.</p> <p>Further as per details submitted by PP 202.73 acres of land that is in EC dated 14/03/2022 of JSPL is being transfer as part of the JOSL expansion proposal for which formal permission has not been obtained from MoEF&CC JSPL should take formal approval of the change in green belt arising out of this transfer</p>
Location	Area	Number of plantations	Remarks																							
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S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
		<ul style="list-style-type: none"> • The development of the green belt in the area to be sub-leased to JSOL was initiated by JSPL in the area 2016. It is pertinent to mention that this area is open and is accessible to the locals and livestock and thus the developed green belt in the area was disturbed. Moreover, no project related activity has been undertaken in this area. 	
19.	There are many PF and RF very adjacent to the project site and within the study area. PP needs to submit the mitigation measures that will be undertaken to minimise the impact of the proposed project	<ul style="list-style-type: none"> • After the construction phase, no further land-breaking or filling will be required. The following steps are proposed to be taken within the project area: • Green Belt: Three-tier plantation all along the boundary has been envisaged to minimize the spreading of dust and control Air pollution. The green belt development will be taken up as per guidelines of Central Pollution Control Board (CPCB), Government of India. Greenbelt development in 511.18 ha area (i.e. 35% of the total project area) @2500 saplings/ ha. • Control of Dust and Air Pollution: <ul style="list-style-type: none"> ○ JSOL proposes to achieve stack emissions of $\leq 10-30$ mg/Nm³ against the norms of ≤ 50 mg/Nm³. To achieve the ≤ 30 mg/Nm³ stack emissions, company will install high efficiency APCEs with respective units. ○ The company will install CEMS on all stacks and the same will be connected to CPCB / SPCB server to report the real time emissions. • Fugitive emissions control measures: <ul style="list-style-type: none"> ○ Provision of bag filter/ESP, ducts, extraction fans and stacks of appropriate heights ○ All closed zone working areas such as raw materials handling zone, conveyor transfer points, dust generation points at screen would be provided with dust extraction (DE)systems/dry fogging (DF) at several emission points to control the fugitive dust emissions. DE system shall consist of suction hood followed by bag filter/ESP, ducts, extraction fans and stack of appropriate height. ○ Water sprinkling at regular intervals ○ Covered transportation vehicles & Covered conveyor belts ○ Tyre washing systems for vehicles ○ Use of mobile dry fog machines (20 nos.) ○ Road sweeping machines (10 Nos.) and manual sweeping machines (25 Nos.) will be used. ○ Use of water sprinkler (250 Nos.) on the haul road to control fugitive emissions in the surrounding environment. 	<p>The Forest, Environment & Climate Change Department, Govt. of Odisha vide its letter no. FEDIV-FLD-0156-2021-8819/FE&CC dated 11.05.2022 has furnished its views to MoEF&CC on the exclusion of the Forest land from the proposed expansion project. following actions are suggested by the Forest, Environment & Climate Change Department, Govt. of Odisha need to implemented by the PP.</p> <p>a. That as proposed, the project proponent will ensure not to enclose or in any other way restrict the movement of wildlife. Green Zone should be maintained without any sort of fencing/ boundary wall but by ensuring full proof watch and ward. The User Agency will not change the proposed land use without prior permission of the competent authority.</p> <p>b. Accessibility to each Revenue Forest patches is to be ensured through non-private plots with at least 5 mtr wide all weather roads all around the boundary of proposed expansion. The proposed road should be handed over to either Revenue or Forest Department for future management.</p> <p>c. A scheme for conservation, protection and regeneration of Revenue Forest patches and Durgapur Reserve Forest should be implemented by the Forest Department at the project cost. Further,</p>

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
			<p>Soil & Water Conservation Plan should be implemented to compensate change in land use and drainage patterns.</p> <p>d. Integrated Site Specific Wildlife Management Plan will be implemented by the project Proponent including outcome of periodic revision of existing Wildlife Management Plan as per guidelines issued by CWLW related to Site Specific Wildlife Management Plan if required.</p> <p>e. The User Agency should prepare a plan for existing drainage line to avoid water logging issues in anticipation.</p> <p>f. The User Agency should resolve rehabilitation and re-settlement issues of displaced peoples from proposed acquisition area.</p>
20.	Details of railway siding permission and its status needs to be submitted	<ul style="list-style-type: none"> • The Company has proposed for expansion of Steel plant upto 19.2 MTPA steelplant and 12.5 MTPA Cement plant. • It is estimated that for the proposed Plant, a total of 85 Rakes interchange will take place on a daily basis for this along with the In-plant yard modification. • To facilitate the movement of raw material Intake and finish goods despatch, by-product dispatch to market/consumers the rail network capacity at Angul Plant and connectivity to feeding stations will be expanded. • A detailed study has been conducted and Feasibility Study report (FSR) has been prepared by M/s RCC Infrastructure Consultants for the proposed expansion of the plant. Conceptual plan (Master Plan) of the proposed augmentation with indicative future augmentation work has been prepared with this feasibility study report. • The expansion project will be implemented in two-phases. The FSR for 12 MTPA has been submitted to East Coast Railway for their approval. • The expansion of railway infra-structure has been augmented by providing a bulb type of arrangement by connecting existing plant yard to the mid-section between railway stations Kerjanga and Jharpada and one connection to Kerjanga station. • The expansion to final phase of the steel plant will also be provided by addition of material handling yard of 25 lines with 5 unloading tippers near the Kerejenga station by providing connections with existing bulb. 	<p>The updated status regarding the railway siding permission needs to be submitted.</p> <p>As per details submitted PP has submitted the FSR for 12 MTPA to East Coast Railway for their approval.</p> <p>Time line for remaining 7.2 MTPA as part phase two need to be submitted.</p>

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee																								
21.	Updated status and development of slurry pipelines needs to be submitted	<ul style="list-style-type: none"> Consent to Establish for 18 MTPA capacity Slurry pipeline from Barbil to Angul has been granted by Odisha SPCB vide its letter no. 540/IND-II-CTE-6638 dated 07.01.2022. The total length of the slurry pipeline will be 202 Kms. The slurry pipeline is under construction. The route of the proposed pipeline traverses in two districts: Keonjhar (77 Km) & Angul (125 Km) 	PP has submitted the updated status regarding the slurry pipe line.																								
22.	EAC noted that Green belt plan is not adequate and needs revision	<ul style="list-style-type: none"> Total project area is 1460.51 ha (3609 acres). 35% i.e. 1263.15 acres (511.18 ha) of total plant area will be developed as greenbelt and plantation by planting trees to the tune of 2500 trees/ha. The plant periphery will be developing 3-tier plantation in line with guidelines of the CPCB. The tentative number along with number and area for plantation is as mentioned below:- <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>Type of species</th> <th>No. of saplings</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>1st year</td> <td>Neem (Azadirachta indica), Karanj (Pongamiapinnata),</td> <td>2,55,590</td> </tr> <tr> <td>2.</td> <td>2nd year</td> <td>Baherda (Terminalia bellirica), Maulsari (Mimusopseleng),</td> <td>2,55,590</td> </tr> <tr> <td>3.</td> <td>3rd year</td> <td>Arjuna (Terminalia arjuna), Amaltas (Cassia fistula), Ashok (Saracaasoca), Casuarina</td> <td>2,55,590</td> </tr> <tr> <td>4.</td> <td>4th year</td> <td>(Casurianaequisetifolia), Kadamba (Anthoce phallus cadamba), Teak (Tectonagrandis), Siris (Albizialebbek), Jamun (Syzygiumcumini), Bael (Aegle marmelos), Gulmohar (Delonixregia), Sheesham (Dalbergiasissoo), Acacia (Acacia auriculiformis), Chhitvan (Alstoniascholaris) Queen cape myrtle (Lagerstroemia speciosa), Chakunda (Cassia siamea), Markhmia (Markhamialutea), Kachnar (Bauhinia variegata), Mango (Mangifera indica), Indian almond tree (Terminalia catappa)</td> <td>2,55,590</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total</td> <td>12,77,950 trees</td> </tr> </tbody> </table>	S. No.	Year	Type of species	No. of saplings	1.	1st year	Neem (Azadirachta indica), Karanj (Pongamiapinnata),	2,55,590	2.	2nd year	Baherda (Terminalia bellirica), Maulsari (Mimusopseleng),	2,55,590	3.	3rd year	Arjuna (Terminalia arjuna), Amaltas (Cassia fistula), Ashok (Saracaasoca), Casuarina	2,55,590	4.	4th year	(Casurianaequisetifolia), Kadamba (Anthoce phallus cadamba), Teak (Tectonagrandis), Siris (Albizialebbek), Jamun (Syzygiumcumini), Bael (Aegle marmelos), Gulmohar (Delonixregia), Sheesham (Dalbergiasissoo), Acacia (Acacia auriculiformis), Chhitvan (Alstoniascholaris) Queen cape myrtle (Lagerstroemia speciosa), Chakunda (Cassia siamea), Markhmia (Markhamialutea), Kachnar (Bauhinia variegata), Mango (Mangifera indica), Indian almond tree (Terminalia catappa)	2,55,590	Total			12,77,950 trees	PP need to preset the details in EAC meeting. PP has to develop the Green Belt with sufficient width more than 50m in boundary adjacent to reserve forest and habitation.
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Total			12,77,950 trees																								
23.	PP needs to revise the water balance as it is not adequate as deliberated during the meeting.	<p>The Company has prepared the water balance considering the following:</p> <ul style="list-style-type: none"> Use of water to be recovered from the Slurry pipeline Installation of RO/UF based ETP plants and use of the treated water in the process. Cycle of Concentration has been considered as 6. The specific water consumption is targeted as 3.5 m³/ ton of finished product (Long product + Flat product) against the CREP guidelines of 5 m³/ ton of product (in case of long product) and 8 m³/ ton (in case of Flat product). 	PP has submitted revise water balance and it need to be presented in EAC meeting.																								

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
		<ul style="list-style-type: none"> The Water balance is submitted. 	
24.	It was observed that still R&R issues are pending w.r.t. PAF. Details needs to be submitted	The details of the R&R has been submitted as reply to the Point no. 4 above.	A time bound action plan and commitment regarding R&R need to be submitted by the PP.
25.	PP also needs to submit all the directions issued by the SPCB, if any, and details court cases, if any.	<ul style="list-style-type: none"> There are no directions from SPCB or court cases pertaining to Jindal Steel Odisha Ltd. (JSOL). However, a case was filed in September, 2017 against the existing 6 MTPA Integrated Steel Plant of JSPL at Angul alleging obstruction of KurdabahaliNalla, dumping earth and waste material over the nallah and constructing the industry over the nallah. During the course of hearing, JSPL was able to prove that the diversion of the nallah was necessitated by the situation arising out of heavy rainfall in the year 2011. However, the Hon'ble NGT vide its judgement dated 26.11.2021 ruled that the original course of nallah was diverted and the approval was obtained on 14.07.2017. Accordingly the Hon'ble NGT imposed cost of Rs. 2 Crores upon the company to be deposited with the Forest Department and the Odisha SPCB to carry out plantation on the bank of the nallah and create a biodiversity park and to do continuous monitoring of water quality and take necessary measures for removal of pollutants, if any. Odisha SPCB vide its letter dated 01.12.2022 issued directions to the 6 MTPA integrated steel plant of JSPL. The detailed reply on the action taken by the company was submitted to OSPCB on 16.12.2022. The Regional Officer, SPCB has submitted the compliance report to the directions. 	EAC need to deliberate up on the directions submitted by OSPCB and The detailed reply on the action taken by the company.
26.	There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot	<ul style="list-style-type: none"> The layout maps are submitted The Rainwater harvesting design calculations are submitted. 	PP has submitted layout map and rainwater harvesting plan, and need to deliberated at EAC meeting.

S No.	EAC observation	Response of Project Proponent, JSOL	Remarks of the Sub-committee
	<p>area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations:</p>		

Recommendations of Sub-committee made during site visit:

A. Recommendations w.r.t. M/s. JSOL

Considering the aforesaid observations, the sub committee recommended that the further expansion of the proposal of M/s JSOL for grant of EC may be considered after detailed deliberation in EAC in complying with the following conditions: -

- i. Physical demarcation of M/s JSOL be provided along with clear demarcation between M/s JSOL and M/s. JSPL units.
- ii. The PP be asked to provide details of land transfer carried out or land transfer agreement for with documental evidence for total land involved in the project of M/s JSOL as per OM dated 7th October, 2014.
- iii. Since the existing project land of JSOL is surrounded by JSPL project, a formal approval should be taken about the proposal to develop green belt in such situation.
- iv. The present road connectivity between the national highway and the plant is inadequate to cater even to the present requirement of transporting raw materials, the products and the waste of M/s JSPL. The committee noted heavy dust emission from the road used for transporting its raw material and products (length approx. 11.0 Km) connecting to NH-55. The committee members observed that the leaves of the trees were literally immersed in dust all along the road and nearby area. As an immediate intervention the road need to be black topped and be at least 18-meter-wide with clear berm on the both sides and storm drain. Either side of the road green belt should be developed with width of at least 15m. The black topping should be completed within a month period. A detailed long term action plan for concreting the instant road need to be submitted with time line.
- v. Project proponent shall prepare layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. All networking shall be as per National Building Code.
- vi. Parking area of all vehicles is in the expansion area and Huge dust is generated due to vehicular movement. Therefore, parking area also to be black topped immediately.

- vii. Slurry pipe line for transportation of raw material to be expedited and has to be completed in time bound manner as the existing road which is being used already overcrowded, dusty and having high density of traffic
- viii. The unit shall provide rainwater harvesting and storage facility.
 - ix. shall take appropriate environmental safeguard measures to minimize the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.
 - x. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
 - xi. project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010, The aforesaid FC need to be transferred in the name of M/s. JSOL.
 - xii. An action plan for Green Belt development within 1 year consisting of 3 tiers of plantations of native species all along the periphery of the project with adequate width, covering 33% of the project area with a tree density not less than 2500 per ha should be submitted immediately. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Local species should be preferred for Green Belt and tall trees shall be introduced. Further PP has to develop the Green Belt with sufficient width more than 50m in boundary adjacent to reserve forest and habitation.
- xiii. PP need to revise the PH action plan and include support to the famers in the nearby villages in consultation with horticulture department. PP shall continue to work for socio economic development of all adopted villages and prepare a plan to develop them into model villages. PP is requested to revise the PH actin plan covering all social and environmental aspects substantially. PP has to come out with more innovative projects for improving the lives of the people the surrounding area.
 - a. Encourage and train youngsters in the surround area to start small scale industries to recycle industrial waste, eg. brick making.
 - b. The committee members observed that Jindal have set up good skill development centre for women. This can be further upgraded to double the beneficiaries.
 - c. Setting up of STP near the localities and utilizing this water can be considered.
- xiv. The effectiveness of PH action plan shall be measured in three areas.
 - i. Heath index -Conduct a survey to collect the data related to diabetes, cancer, anemia, hypertension, children with physical and mental disabilities, asthma etc.
 - ii. Social index - A survey to assess the education qualification, school dropout rates, skill set, general knowledge & awareness about rules and regulations of the land.
 - iii. Green Index: The data related to air pollution, ground water, its availability and quality, availability of river water, green cover, number of trees, biodiversity etc. The baseline data and well as data at regular intervals should be collected for the above indices so that the effectiveness of the interventions can be evaluated.
- xv. As Badkrrjang is a big village of around 2000 population, PP has to make it a model village with all amenities like road, livelihood for people, health facilities and proper plan for education of children, elders and women.
- xvi. Water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented. A robust Drainage Conservation scheme shall be implemented after contour mapping to protect the natural drainage and its flow parameters, along with Soil conservation scheme and multiple Erosion control measures.

- xvii. The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- xviii. The project proponent shall utilize modern technologies for capturing the carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of ensuring carbon negative status in the long term. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- xix. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used effectively eg. as a fuel for cooking in canteen.
- xx. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- xxi. Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC
- xxii. Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- xxiii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere. The PP need to submit a detailed list of of pollution control devises that will be used to address the emission.
- xxiv. It is advisable that PP shall adopt Green Building concept in the plant. All buildings shall be advised to construct as per Indian Green Building Council (IGBC) standards wherever possible. PP shall set an example before the industry sector by doing so.
- xxv. Appropriate numbers of Mist canon/ dry fog types arrangement to be provided
- xxvi. In addition to water sprinkling and mist fog type of arrangement, PP may also explore the possibilities of modern technique like increasing temporary electrical charges of fugitive dust particles and allow them coagulate and to fall on the ground.
- xxvii. There shall be layout plan in at least three different drawings. In drg no 1 layout shall be of road network, all project plants buildings, parking, detailed area statement of each component and its ratio with plot area, indexing with proper color code, scale of drawing, north line and drawing revision no etc. In drg no. 2 layout shall be of road network, existing and proposed Green belt required for the project i.e. 33%/40% etc. Proper calculation of Green belt in triangulation method for existing and proposed GB. Indexing of GB for existing and proposed GB along with area statement and its % against plot area. Along with GB area, number of plants shall be @ 2500 plants per ha shall be mentioned in the drawing. There shall be sufficient water provision for proposed GB in water balance. i.e. for one plant a water provision of 10 lit per day per plant etc. It is advisable that, peripheral GB with width not less than 50M shall be of such species that, it shall be effective for reduction of pollution level to a considerable extent. Further if there is any habitation, school, hospital towards any direction, GB width shall be increased further depending on the distance of such habitation exist. In Drg no. 3 layout shall be of contour map with definite contour interval. Road network and all drainage system along road side with drawings, design and calculations etc. Further Rain water harvesting system for roof top water calculations and drawings shall be evaluated in the same drawing. Invert level of drainage disposal system

for ZLD be indicated properly. There shall be proper indexing with color code for different drainage line and diameter be indicated.

B. Recommendations w.r.t. M/s. JSPL

M/s. JSPL need to apply for the amendment in EC dated 14/03/2022 regarding the change in land arising due to transfer of land to the project of M/s. JSOL. The following points also need to be considered while apprising the project in EAC.

- i. JSPL should take formal approval of transferring about land out of existing approved project land as per ECs and also for change in the green belt condition due to this subleasing.
- ii. As per details submitted by PP 202.73 acres of land, that is in EC dated 14/03/2022 of JSPL is being transfer as part of the JOSL expansion proposal. EC amendment in this regard need to be furnished.
- iii. As per details submitted by PP 202.73 acres of land that is in EC dated 14/03/2022 of JSPL is being transfer as part of the JOSL expansion proposal. The change in green belt arising out of this transfer need to be submitted.
- iv. The present road connectivity between the national highway and the plant is inadequate to cater even to the present requirement of transporting raw materials, products and waste of M/s JSPL. The committee noted heavy dust emission from the road used for transporting its raw material and products (length approx. 11.0 Km) connecting to NH-55. As an immediate intervention the road need to be black topped with in no time, the action taken in this regard should be reported to IRO within one month. A detailed action plan to concrete the instant road need to be submitted.
- v. It has been observes that majority trucks are not covered with tarpaulin, PP to ensure tarpaulin cover for all trucks.
- vi. It has been observed that in Parking area of all vehicles huge dust is generated, parking area to be black topped immediately.
- vii. The unit shall submit action taken note to ensure compliance to the directions issued by OSPCB.
- viii. No discharge from fly ash pond should come out. During transport, disposal and storage phases, sufficient care must be taken, not to pollute ground and surface waters. The ground water should be checked once in 6 months to identify any potential hazardous leaching.
- ix. A study by a nationally recognized institute shall be done on stability of the exiting ash pond within 3 months. Sufficient steps shall be taken to further stabilize the pond based on the study results.
- x. wind shield (wind breakers) shall be erected with sufficient height (not less than 4m) around fly ash pond and strengthening of green belt around the pond shall be carried out to reduce fugitive emissions carried by winds.
- xi. Water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
- xii. It has been observed that majority trucks are not covered with tarpaulin, PP has to ensure tarpaulin cover of all trucks.
- xiii. Parking area of all vehicles is in the expansion area and Huge dust is generated due to vehicular movement. Therefore, parking area also to be black topped immediately.
- xiv. Metallic screen barrier shall be provided around the raw material handling area to restrict the propagation of dust to nearby areas.
- xv. PP should explore possibility of adoption of state of art technology such as pulsed radio waves in the wi-fi spectrum for cleaning of particulate matter from the ambient air.

- xvi. Additional vacuum based mechanical road sweeping machine for the cleaning of road dust from approach roads as well as internal roads.
- xvii. Enhancement of ash pond water (supernatant, seepage and runoff) recirculation system with defluorination facility in ash pond area.
- xviii. Deployment of mechanical covered vehicles for transportation of raw material (coal) and fly ash transportation.
- xix. Adoption of closed pipeline conveying system from pit head of captive coal mines (Utkal-C, Utkal-B1 & Utkal-B2) to the plant.

25.5.24 Based on the points raised by the EAC during its 21st EAC meeting held during 16-17th January, 2023, and the recommendations made by the EAC (Industry-1) sub-committee, PP uploaded the ADS reply vide its letter dated 10.03.2023 uploaded on PARIVESH portal on 10.03.2023 as detailed in table above. Based on the above submission of PP, the proposal was reconsidered during 25th meeting of the EAC for Industry-I sector held on 21-23rd March, 2023. The deliberations and recommendations of EAC are as follows:

Written representations:

25.5.25 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 22.03.2023 through email dated 22.03.2023 submitted the following information:

S. No.	Additional Observations / ADS Point of EAC	Reply submitted by the PP
1.	PP need to submit the presentation on point wise reply of recommendations given by sub-committee for JSOL and JSPL in the site visit report, discussed during this meeting.	The presentation on point wise reply of recommendations given by sub-committee is submitted.
2.	PP need to submit the compliance status of the directions given by SPCB vide letter no. 22424 dated 01.12.2022.	<ul style="list-style-type: none"> • In view of non-compliances, the unit was called for a personal hearing on 06.03.2023 at 04:30PM to review compliance to direction issued and lapses observed during inspection conducted on 22.02.2023. • The latest direction with time frame for implementation has been received from SPCB vide letter no. 3804 dated 17.03.2023. • JSPL has given the undertaking to the SPCB to comply with the same. • The SPCB direction dated 17.03.2023 and the undertaking dated 18.03.2023 for the same are submitted.
3.	Revised timeline for partial/non-compliances as stated in Certified	Revised timeline for partial/non-compliances as stated in Certified Compliance report is updated at para 25.5.22 above.

S. No.	Additional Observations / ADS Point of EAC	Reply submitted by the PP
	Compliance report to be submitted.	
4.	Revised CER Plan in line with the point raised in the compliant to be submitted.	Keeping in mind the recommendations of the Sub-Committee regarding the special plan for adoption of Badkerjang and inclusion of Horticulture for improvement in the farmer's income, the CER budget has been increased from Rs. 555 crores to Rs. 700 crores. The revised CER Plan is updated at para 25.5.18 above.
5.	Undertaking to be submitted by JSOL and JSPL regarding development and maintenance of 33% greenbelt jointly and severally for both the projects.	Undertaking regarding development and maintenance of 33% greenbelt separately for both the projects has been given by JSPL as well as JSOL. JSOL vide letter dated 22.03.2023 has undertaken to develop the greenbelt in about 1263 acres i.e. 35% of total area of the project. JSPL vide letter dated 22.03.2023 has undertaken to maintain the greenbelt in atleast 33% of the total plant area of 2010.27 acres (reduced land after sub-leasing/transfer of 202.73 acres land to JSOL for proposed 19.2 MTPA ISP).
6.	The baseline assessment for effectiveness of PH action plan w.r.t. Health Index, Social Index & Green Index	The baseline assessment Health index and Social index will be conducted within 01 year period and the baseline w.r.t the Green Index has already been part of EIA /EMP Report. The review survey w.r.t. the Health and Social Index post implementation of the Socio-economic plan will be done after period of 3 years. The Green Index review survey will be done half-yearly as the same has been included in the Environmental Monitoring Plan of the project.
7.	Fly Ash Utilization for the existing plant of JSPL to be provided	<ol style="list-style-type: none"> 1. JSPL is utilizing ash in line with the latest notification of MoEF&CC. 2. Ash is utilized in Brick making, road making, aggregate making, low lying area filling, etc. 3. Any unutilised ash is disposed in the existing dyke in slurry form. 4. The linked coal mine Utkal B1 was de-allocated vide order dated 24.09.2014 of Hon'ble Supreme Court and thus the mine could not be operationalized. 5. The Company has been vested with Utkal B1 & B2 and Utkal C Coal mines and once operational the Company will utilize the ash for progressive backfilling of these mines.

S. No.	Additional Observations / ADS Point of EAC	Reply submitted by the PP
8.	Latest status of Land acquisition of JSOL project to be submitted.	Latest status of Land acquisition of JSOL project is submitted and updated at para 25.5.9 above.
9.	Commitment for R&R implementation for JSOL project area to be submitted.	The details of the R&R in the JSOL Plant area are submitted and updated at para 25.5.9 above.
10.	Complaints forwarded vide emails dated 03rd February, 2023, 21st March, 2023 by MoEF&CC	The Complaints are similar and pertaining to common points. The point-wise reply to the same was submitted along with the ADS reply (para 25.5.23 above) and the same is again submitted.
11.	Road-map for Decarbonisation to be submitted.	The detailed road-map for decarbonisation is submitted.

Deliberations by the Committee

25.5.26 The Committee noted the following:

1. The instant proposal for expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The EAC noted the following w.r.t. the instant proposed project:

- (i) Initially, M/s. Jindal Steel & Power Limited (JSPL) was granted ToR for expansion of Integrated Steel Plant from 6 MTPA liquid steel to 25.2 MTPA liquid steel (24.79 MTPA Crude Steel) and 12.5 MTPA Cement plant located at Village Kerjang, Tehsil Chhendipada, District Angul, Odisha vide letter dated 08/02/2021 with amendments dated 16.06.2021 and 29.11.2021.
 - (ii) M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I) dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.
 - (iii) Further, M/s. JSPL again applied for amendment in ToR dated 08/02/2021 (with amendments dated 16.06.2021 and 29.11.2021) w.r.t. change in land use due to exclusion of the forest land from the TOR and was accorded ToR amendment vide letter dated 15.06.2022.
 - (iv) M/s. JSOL then applied for Transfer of ToR dated 08/02/2021 (with amendments dated 16.06.2021, 29.11.2021 and 15.06.2022) vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022 from M/s. JSPL to M/s. JSOL.
 - (v) Thereafter, M/s Jindal Steel Odisha Limited, vide proposal no. IA/OR/IND/281741/2022, has submitted the TOR proposal for Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2, MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant at Angul Odisha. Accordingly, the Ministry has issued TOR to M/s Jindal Steel Odisha Limited for the above mentioned project on 07.07.2022.
 - (vi) In view of the above, the Ministry also decided that proposal of Transfer of TOR [vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022] from M/s. JSPL to M/s. JSOL may not be required and be closed in Parivesh Portal. Accordingly, PP was requested to submit the request for closure for transfer proposal from Parivesh Portal.
 - (vii) M/s JSOL was granted Consent to Establish (CTE) by Odisha State Pollution Control Board (OSPCB) vide letter no. 13014/IND-II-CTE-6656 dated 26.07.2022.
 - (viii) Based on partial transfer of EC obtained from MoEF&CC dated 14.03.2022, PP has reported that 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill are under construction phase and CTO has not been obtained.
6. While appraising the proposal, the EAC took into consideration the observations and recommendations of the sub-committee report on the site visit conducted during 21-22nd February 2023, as detailed in para 25.5.23 above.

7. As reported the total land required by JSOL for expansion project is about 1460.51 ha (3609 acres). Out of the total 3609 acres, 2726.61 acres area is already acquired by JSPL and the same is being sub-leased to JSOL. Revenue and Disaster Management Department, Govt. of Odisha vide its letter dated 21.06.2022 has allowed JSPL to sub-lease the land measuring 2120.325 acres to JSOL for setting up of 19.2 MTPA Steel plant and 12.5 MTPA Cement plant. The additional area of 882.12 acres will be acquired by JSOL. Letter has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JSOL/378/21/3248 dated 09.09.2022 for allotment of additional land to JSOL for setting up the plant at Angul Odisha after assessment by the High Level Clearance Authority (HLCA) in its 28th meeting held on 21.12.2021. The EAC deliberated on the land acquisition status and is of the view that the complete proposed land shall be acquired in the name of JSOL with requisite permissions from Competent Authority prior to commencement of proposed expansion project.
8. The EAC also noted that since 202.73 acres of land from existing 6 MTPA Steel plant of JSPL will be sub-leased to JSOL for the proposed expansion project, JSPL shall obtain amendment in its EC simultaneously w.r.t. reduction of land area from its project. It was informed to the Committee that M/s. Jindal Steel & Power Ltd. has submitted an application vide Proposal No. IA/OR/IND/298472/2023 dated 16.03.2023 in Form 4 on PARIVESH for amendment in its EC granted by the Ministry vide No. J-11011/365/2006-IA.II(I) dated 22.02.2007 w.r.t. reduction its project area from 2213 acres to 2010.27 acres. However an EDS was raised by the Ministry due to shortcomings in the proposal and JSPL has submitted the EDS reply on 23.03.2023 for further consideration of the Ministry. The proposal may be considered for appraisal of the Committee in the forthcoming meeting subject to completeness of the proposal.
9. The EAC noted that the proposed expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010, however the same has not been transferred in the name of M/s. JSOL. The application for transfer of the FC to JSOL has been made to the Forest Department vide letter dated 16.09.2022 and the same is under process for transfer. The Company has further submitted an undertaking w.r.t. the compliance to the terms and conditions on which the FC was granted by MoEF&CC. The EAC is of the opinion that transfer of FC in the name of JSOL shall be obtained prior to commencement of proposed expansion project.
10. The Committee observed that the approximate number of trees in the areas which will be disturbed/ cleared for development for plant facilities are about 3853 and the Company has proposed to transplant about 2500 nos. of trees. The EAC is of the view that necessary permission shall be obtained from Competent Authority.
11. The EAC noted that the already acquired areas to be sub-leased to JSOL involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. The EAC deliberated on the submitted R&R plan with timelines and is of the view that R&R plan shall be strictly implemented and no issues shall arrive during the execution of the project.
12. Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada

villages falls at the project Site. There are approx. 109 villages in 10 km radius study area of the project site. The EAC deliberated on observation of sub-committee and is of the view that appropriate measures shall be taken to safeguard the habitation in these villages. PP needs to strengthen green belt all around the plant area to reduce the dust pollution.

13. As committed, the Company has proposed to adopt around 39 villages which includes Parang, Bhubanpur, Ramadiha, R&R Colony, Pitabali, Nisha, Kaliakata, Natada, Ambapal, Mahitala (Badamahitala& Sana Mahitala), R & R Colony , Mahitala (New Basudevpur, New Panpur, New Kaliakata, New Raijharan, New Golagadia), Tukuda, Raijharan, Golagadia, Kaunsidhipa, Similisahi, Jarasingha, Old Jarasingha, Benagadia, Majhika, Bedasar, Sanakerjang, Golabandha, Dabardhua, Pathuria, Beherabhuin, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Sanajamunda, Jarada, Paripara, Santarapur, Dudhiabeda, Maratira, Tubey, Kulei, Derajang and Subarnapur. The Village Adoption Program has been prepared in alignment with the Sustainable Development Goals (SDGs). The EAC deliberated on the same and found it satisfactory.
14. KurdabhaliNala is present at the plant site. Parang Minor Irrigation project (MIP) and NandiraJor are adjacent to the project site. Sixteen water bodies including Nala, reservoirs and canal are within the study area. The EAC deliberated on the drainage conservation plan and is of the view that the conservation plan shall be strictly implemented. PP shall also provide Garland drains of adequate capacity all around the Project site.
15. The existing water requirement for the Pellet plant and Hot Strip mill is 1095 m³/hr. Total Water requirement after expansion will be 14060 m³/hr out of which 11020 m³/hr will be sourced from River Brahmani and the balance water requirement will be met through recycled/ treated water. The EAC deliberated on the modified & revised the water balance based on the peak water requirement of the project including greenbelt & plantation development and found it satisfactory.
16. 511.18 ha, i.e. 35% of the total plant area will be developed under greenbelt & plantation. Total no. of 12,77,950 trees will be planted and nurtured in 511.18 ha in 5 years. The committee deliberated on the revised greenbelt development plan within the premises and along the periphery of the project boundary and found it satisfactory.
17. Six Schedule-I species were found within 10 km radius of the study area of the plant site during biological study. As recommended by the PCCF & HOFF, Govt. of Odisha, a site specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF & HoFF, in line with the guidelines of the Govt. of Odisha. The Company undertakes to deposit the amount for execution of the plan, to be approved by the PCCF & Chief Wildlife Warden. The Committee also deliberated upon the conservation plan and found it satisfactory.
18. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and agreed with the recommendations of sub-committee to provide sufficient technical measures including water fogging for decreasing fugitive emission during the construction phase of the project. High efficiency state of the art pollution control equipment's shall be implemented in all the facility while in operations, stack PM emissions in should be less the 30 mg/Nm³. The Committee also deliberated upon the Action plan and found it satisfactory.

19. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO, review of IRO and revised time bound plan of PP and is of the view that project proponent shall strictly comply with the timelines as committed.
20. The committee deliberated on details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
21. The EAC deliberated on the pointwise reply of project proponent and its action plan to the representation dated 13.01.2023 received against the project requesting for “Stay Order” on “Environment Clearance” for proposed phase-2 expansion of JSPL-Angul and found it satisfactory.
22. The Committee recorded that a case was filed in September, 2017 against the existing 6 MTPA Integrated Steel Plant of JSPL at Angul alleging obstruction of KurdabahaliNalla, dumping earth and waste material over the nallah and constructing the industry over the nallah. However, the Hon’ble NGT vide its judgement dated 26.11.2021 ruled that the original course of nallah was diverted and the approval was obtained on 14.07.2017. Accordingly the Hon’ble NGT imposed cost of Rs. 2 Crores upon the company to be deposited with the Forest Department and the Odisha SPCB to carry out plantation on the bank of the nallah and create a biodiversity park and to do continuous monitoring of water quality and take necessary measures for removal of pollutants, if any. Odisha SPCB vide its letter dated 01.12.2022 issued directions to the 6 MTPA integrated steel plant of JSPL. The detailed reply on the action taken by the company was submitted to OSPCB on 16.12.2022. The Regional Officer, SPCB has submitted the compliance report to the directions.
23. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the revised EMP cost and found it satisfactory.
24. The Committee also deliberated on the public hearing issues along with revised action plan along with the budget allocated for the same for the instant proposal submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
25. The EAC deliberated on response of JSOL to all the other issues raised in the earlier meeting along with the remarks of sub-committee as per site visit report and found it satisfactory.
26. The Committee also deliberated upon the submission and action plan of the Project Proponent w.r.t. representations received before the EAC/Ministry and found it satisfactory.
27. The Committee also deliberated upon the R&R plan and is of the view that the PP shall implement the R&R Plan in consultation of the State Government and implement the Plan without any delay as per Rules/Regulations notified by the State Government from time to time.
28. The Committee deliberated upon the written submission of the Project Proponent and found it satisfactory.
29. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

30. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

25.5.27 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written information** on Parivesh portal under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific conditions:

- (i) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- (ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iv) Physical demarcation of M/s JSOL shall be provided along with clear demarcation between M/s JSOL and M/s. JSPL units.
- (v) Complete land proposed in the instant proposal shall be acquired in the name of JSOL with requisite permissions from Competent Authority prior to commencement of proposed expansion project.
- (vi) Forest Clearance obtained by M/s. JSPL for diversion of 332.64 ha vide letter no. 8-75/2008-FC dated 28.10.2010 and involved in the instant proposal shall be transferred in the name of JSOL prior to commencement of proposed expansion project. All the other statutory permissions shall be obtained in the name of JSOL.
- (vii) The PP shall implement the R&R Plan in consultation of the State Government and implement the Plan without any delay as per Rules/Regulations notified by the State Government from time to time. R&R plan along with a livelihood plan shall be strictly implemented and no issues shall arise during the execution of the project.
- (viii) Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada

villages falls at the project Site. There are approx. 109 villages in 10 km radius study area of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include some of these locations in its environmental monitoring programme.

- (ix) During the operation phase, PP shall conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.
- (x) Kurdabhali Nala is present at the plant site. Parang Minor Irrigation project (MIP) and NandiraJor are adjacent to the project site. Sixteen water bodies including Nala, reservoirs and canal are within the study area. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented. PP shall also provide Garland drains of adequate capacity all around the Project site.
- (xi) As committed, PP shall adopt 39 villages which includes Parang, Bhubanpur, Ramadiha, R&R Colony, Pitabali, Nisha, Kaliakata, Natada, Ambapal, Mahitala (Badamahitala& Sana Mahitala), R & R Colony , Mahitala (New Basudevpur, New Panpur, New Kaliakata, New Rajjharan, New Golagadia), Tukuda, Rajjharan, Golagadia, Kaunsidhipa, Similisahi, Jarasingha, Old Jarasingha, Benagadia, Majhika, Bedasar, Sanakerjang, Golabandha, Dabardhua, Pathuria, Beherabhuin, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Sanajamunda, Jarada, Paripara, Santarapur, Dudhiabeda, Maratira, Tubey, Kulei, Derajang and Subarnapur and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. The PP must monitor development activities of all proposed Model Villages on half yearly basis and must ensure the environment protection, skill development, health, education ,livelihood, women empowerment etc..
- (xii) The total water requirement after expansion of 14060 m³/hr shall be sourced from River Brahmani (11020 m³/hr) and the balance water requirement shall be met through recycled/ treated water. Necessary permissions shall be obtained from the Competent Authority in this regard. No ground water extraction is permitted.
- (xiii) Three tier Green Belt shall be developed with majority in the 1st year covering at least 33% of the total project area as per the submitted plan with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Green belt of at least 15m shall be developed on either side of the road connecting to the highway. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards the nearby villages, adjacent Protected & Reserved Forest and other Environmentally Sensitive Areas. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (xiv) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

- (xv) All the observations stated in the certified compliance report of RO shall be complied with as per the timelines committed. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (xvi) The gaseous emissions from Pellet plant and the Rolling mill shall conform to the load/mass-based standards notified by this Ministry vide notification no. G.S.R. 277(E) dated 31st March, 2012 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 30 mg/Nm³. Interlocking facility shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- (xvii) In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Bag filters/ESP shall be provided to Pellet plant. Further, specific measures like water sprinkling shall be carried out at the raw material yard, wagon tippler/truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained. The storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xviii) The PP should Install Wind breaker/ wind shield arrangement along the railway siding for reducing the dust propagation.
- (xix) The Periodical health check-up shall be conducted to monitor the impact of heavy metals present in core zone & buffer zone air quality and also to prepare an action plan to reduce heavy metals concentration and also report to be submitted to concerned regional office of MoEF&CC.
- (xx) The PP shall complete the task w.r.t. connecting road about 11km from NH 55 to proposed expansion as well as existing plant to be black topped within one month (at least 18-meter-wide road with berm on both sides with storm drain). Similarly, parking area for the heavy vehicles to be black topped within a month time after obtaining EC to avoid dust generation.
- (xxi) Groundwater monitoring around the project site shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and OSPCB.
- (xxii) Dust from the pellet plant shall be reused within the pellet plant. Mill scales shall be sent to pellet plant for re-use. Sludge from ETP of HSM shall be sold to steel plant. Oil and grease recovered from HSM ETP shall be given to registered recyclers.
- (xxiii) Continuous online ambient air quality monitoring stations shall be setup in consultation with the SPCB. The company shall undertake continuous monitoring of ambient air quality and stack emissions. The monitored data shall be displayed on the company's website as well as important public places.
- (xxiv) Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. The PP shall extend the occupational health monitoring to the villagers on a random basis to establish any health disorders due to the project's operations.
- (xxv) Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.
- (xxvi) Solid waste utilization

- a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
 - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
 - c. Used refractories shall be recycled as far as possible.
 - d. The PP shall formulate a roadmap and implement the principles of ‘Circular Economy’ and Sustainable Development Goals (17 SDGs) in this regard.
- (xxvii) Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.
 - (xxviii) Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
 - (xxix) Coke oven plant shall be equipped with modified wet quenching system.
 - (xxx) Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m³), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
 - (xxxi) Secondary fume extraction system shall be installed on converters of Steel Melting Shop.
 - (xxxii) Basic Oxygen Furnace (BOF) gas shall be cleaned dry.
 - (xxxiii) Electric Arc Furnace shall be closed type with 4th hole extraction system.
 - (xxxiv) 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.
 - (xxxv) Cold Rolling Mill (CRM), color coating and galvanizing plants shall have CETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to TSDF.
 - (xxxvi) The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours’ average exposures) with permissible limits based on free silica content of air borne respirable dust.
 - (xxxvii) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
 - (xxxviii) The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
 - (xxxix) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
 - (xl) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines. The roads shall be least 18-meter-wide with clear berm on the both sides and storm drain. Green belt of at least 15m shall be developed on either side of the road with width. The black toping should be completed within a month period. A detailed long term action plan for concreting the instant road shall be implemented.
 - (xli) Parking area of all vehicles is in the expansion area and huge dust is generated due to vehicular movement. Therefore, parking area also to be black topped immediately.

- (xlii) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.
- (xliii) Appropriate numbers of Mist canon/ dry fog types arrangement shall be provided. The PP shall also extend the mist fog sprinkling to the surrounding villages periodically.
- (xliv) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
- (xlv) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm³ by using best available technology.
- (xlvi) Petcoke dosing shall be controlled automatically to control SO₂ emission from chimney within the prescribed limits.
- (xlvii) The energy conservation measures shall be introduced with available best international practices and with details may be submitted to the Ministry in this regard.
- (xlviii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- (xlix) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
 - (l) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
 - (li) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
 - (lii) The PP shall prepare and implement pond/ lake rejuvenation plan to conserve the existing water bodies present in and around the adjacent villages.
 - (liii) The Topsoil removed during construction phase should be managed scientifically with the objective of conservation, and earliest and continuous reuse.
 - (liv) The PP shall create a "Public Grievance Redressal and Monitoring System" for resolving any issues related to the pollution, PH and other related issues and complaint has to be resolved immediately.
 - (lv) The PP shall adopt and implement the best practices for housekeeping in and around the plant.
 - (lvi) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the

Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

- (lvii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- (lviii) The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- (lix) Project Proponent should keep track on best available environmental practices in the steel industry across the globe and try to make a sincere effort to adopt those practices.

B. General conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
 - ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
 - x. Land-based APC system shall be installed to control coke pushing emissions.
 - xi. Monitor CO, HC and O₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
 - xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
 - v. Tyre washing facilities shall be provided at the entrance of the plant gates.
 - vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

- i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

VI. Waste management

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
- ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which

- one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
 - iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
 - v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
 - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 25.6

25.6 Greenfield Project for Production of Sponge Iron, Ferro Alloy Plant For Product Mix of Silico Manganese or Ferro Manganese or Ferro Silicon with 9 MVA SAF and Captive Power Plant (WHRB) by M/s Satyam Iron & Steel Company Private Limited, located At Mouza- Jadudanga Mondalpur, PS + PO-Jamuraia, Ranisayer-Jamuraia Road, District.- Paschim Bardhaman, West Bengal– Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/419871/2023; File No. IA-J-11011/127/2022-IA-II(IND-I)]

[Consultant: M/s Grass Roots Research & Creation India (P) Ltd.; Valid upto: 15.02.2024]

25.6.1 M/s. Satyam Iron & Steel Company Private Limited has made an online application vide proposal no. IA/WB/IND1/419871/2023 dated 28.02.2023 along with copy of EIA/EMP report, prescribed format (CAF, Form – I Part A, B & C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

25.6.2 Name of the EIA consultant: M/s. Grass Roots Research & Creation India (P) Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0213; valid upto 15.02.2024, as on March 23, 2023].

Details submitted by Project proponent

25.6.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
20.04.2022	5 th meeting of the EAC (Industry-I) held during 12-13 th May, 2022.	Terms of Reference in the name of M/s. Manbhum Ispat Pvt. Ltd.	13.06.2022	12.06.2026
09.08.2022	--	Transfer of ToR	30.09.2022	
<ul style="list-style-type: none"> The ToR was initially granted to M/s. Manbhum Ispat Pvt. Ltd. vide File No. IA-J-11011/127/2022-IA-II(IND-I) dated 13.06.2023 for Greenfield Project for Production of Sponge Iron 1,15,500 TPA with 350 TPD DRI Kiln, Ferro Alloy Plant Product Mix of Silico Manganese (16,929 TPA) or Ferro Manganese (21,092 TPA) or Ferro Silicon (9,191 TPA) with 9 MVA Submerged Arc Furnace and WHRB based Captive Power Plant of 8 				

MW located at Mouza- Mondalpur, Jadudanga, PS+PO-Jamuria, Ranisayer -Jamuria Road, District Paschim Bardhaman, West Bengal.

- The ToR was transferred in the name of M/s. Satyam Iron & Steel Co Private Limited vide F. No. IA-J-11011/127/2022-IA-II(IND-I) dated 30.09.2022 as PP reported that M/s Satyam Iron & Steel Co. Pvt. Ltd. is already dealing in Sponge Iron and Power Plant. The unit already has an adequate technical, commercial and administrative team to establish and run the unit. M/s. Manbhumi Ispat Pvt. Ltd. is engaged in manufacturing of heavy structural items only having no experience any other production activity. The PP further reported that the directors are common to both the companies are easily available near the factory site. It will assist in smoother and faster accomplishment of factory establishment and operation targets.

25.6.4 The project of M/s Satyam Iron & Steel Co Private Limited, located in Mouza- Mondalpur, Jadudanga, PS+PO - Jamuria, Ranisayer -Jamuria Road, District Paschim Bardhaman, West Bengal state is for setting up of a Greenfield Project for Production of Sponge Iron 1,15,500 TPA with 350 TPD DRI Kiln, Ferro Alloy Plant Product Mix of Silico Manganese (16,929 TPA) or Ferro Manganese (21,092 TPA) or Ferro Silicon (9,191 TPA) with 9 MVA Submerged Arc Furnace and WHRB based Captive Power Plant of 8 MW.

25.6.5 Environmental Site Settings:

S.No	Particulars	Details			Remarks
1	Total Land	6.26 ha [Private land]			Land use: Application for CLU has been submitted.
2	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	Entire land of 6.26 ha has been taken on lease basis.			
3	Existence of habitation & involvement of R&R, if any.	Nil			
4	Latitude and Longitude of the project site	S. No	Latitude	Longitude	
		1	23°40'50.77"N	87° 5'51.11"E	
		2	23°40'50.06"N	87° 5'50.64"E	
		3	23°40'49.54"N	87° 5'51.03"E	
		4	23°40'47.08"N	87° 5'49.42"E	
		5	23°40'41.73"N	87° 5'41.32"E	
		6	23°40'40.47"N	87° 5'42.52"E	
		7	23°40'38.05"N	87° 5'40.01"E	
		8	23°40'50.77"N	87° 5'38.90"E	
		9	23°40'40.56"N	87° 5'36.79"E	
		10	23°40'40.79"N	87° 5'36.19"E	
		11	23°40'42.34"N	87° 5'43.73"E	
		12	23°40'48.69"N	87° 5'45.41"E	
		13	23°40'50.01"N	87° 5'46.84"E	
14	23°40'49.72"N	87° 5'46.08"E			

S.No	Particulars	Details	Remarks									
5	Elevation of the project site	113 Meter above the sea level										
6	Involvement of Forest land if any.	Nil										
7	Water body exists within the project site as well as study area	Project Site – Nil Study Area <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Damodar River</td> <td>8.5 km</td> <td>SW</td> </tr> <tr> <td>Ajay River</td> <td>9.5 km</td> <td>NE</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Damodar River	8.5 km	SW	Ajay River	9.5 km	NE	
Water Body	Distance	Direction										
Damodar River	8.5 km	SW										
Ajay River	9.5 km	NE										
8	Existence of ESZ / ESA/national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve etc. if any within the study area	Nil										

25.6.6 The unit configuration and capacity of proposed project is given as below:

S.No.	Plant Equipment/Facility	Proposed Unit	
		Configuration	Capacity
1.	DRI Plant	350 TPD Kiln	1,15,000 TPA
2.	Ferro Alloy Plant	9 MVA SAF	Si-Mn 16929 TPA or Fe-Mn 21092 TPA or Fe-Si 9191 TPA
3.	Captive Power Plant (WHRB)	36 TPH	8 MW

25.6.7 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
A. DRI Plant					
1.	Iron Ore	1,67,475	Out Source	300-350 km	By Rail & Road through covered trucks
2.	Non Coking Coal	1,50,150	CCL	20-30 km	By Rail & Road through covered trucks
3.	Dolomite	5,198	Open Market	20-30 km	By Road through covered trucks
B. Ferro Alloy Plant					
Silico Manganese					
1.	Manganese Ore	31,319	MOIL; OMC; and other private mines	300-350 km	Road through covered trucks
2.	Coke	7,618	Open Market	20-30 km	Road through covered trucks

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
3	Coal	5,925	Nearby Coal Mines	20-30 km	Road through covered trucks
4.	Dolomite	2,539	Open Market	20-30 km	Road through covered trucks
5.	Quartz	3,724	Open Market	20-30 km	Road through covered trucks
6.	Carbon Paste	339	Open Market	20-30 km	Road through covered trucks
7.	Ferro Manganese Slag	7,618	In-house	20-30 km	Road through covered trucks
Ferro Manganese					
1.	Manganese Ore	46,402	MOIL; OMC; and other private mines	300-350 km	Road through covered trucks
2.	Coke	9,491	Open Market	20-30 km	Road through covered trucks
3	Coal	5,484	Nearby Coal Mines	20-30 km	Road through covered trucks
4.	Dolomite	5,273	Open Market	20-30 km	Road through covered trucks
5.	Carbon Paste	422	Open Market	20-30 km	Road through covered trucks
Ferro Silicon					
1.	Quartzite	17,003	Open Market	20-30 km	Road through covered trucks
2.	Mill Scale	3,493	Open Market	20-30 km	Road through covered trucks
3.	Charcoal	20,670	Open Market	20-30 km	Road through covered trucks
4.	Coke Breeze	2,298	Open Market	20-30 km	Road through covered trucks
5.	Carbon Paste	460	Open Market	20-30 km	Road through covered trucks

25.6.8 The water requirement for the project is estimated as 348.5 m³/day, which will be obtained from Asansol Municipal Corporation Water Supply. Application for the same has been submitted to Asansol Municipal Corporation through request letter dated 20.07.2022.

25.6.9 The power requirement for the proposed project is estimated as 15 MW out of which 8 MW will be obtained from in house CPP and remaining 7 MW will be obtained from DVC/IPCL.

25.6.10 Baseline Environmental Studies:

Period	Pre-Monsoon Season: 1st March 2022 to 31st May 2022
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AAQ parameters at 08 Locations	<ul style="list-style-type: none"> • $PM_{2.5} = 64.5-85.7 \mu g/m^3$ • $PM_{10} = 37.9 - 49.9 \mu g/m^3$ • $SO_2 = 6.5 -13.1 \mu g/m^3$ • $NO_2 = 10.8 - 30.4 \mu g/m^3$ • $CO = 360 - 940 \mu g/m^3$ 																											
AAQ modelling	<ul style="list-style-type: none"> • Incremental GLCs due to the proposed proposal: • $PM_{10} = 2.90 \mu g/m^3$ • $PM_{2.5} = 1.31 \mu g/m^3$ • $SO_2 = 4.1 \mu g/m^3$ • $NO_2 = 3.22 \mu g/m^3$ • $CO = 1.47 \mu g/m^3$ 																											
Ground water quality at 08 locations	<ul style="list-style-type: none"> • pH: 7.53-7.93. • Total Hardness: 193-223 mg/l • Chlorides: 86-135 mg/l, • Fluoride: 0.4 mg/l to 0.7mg/l 																											
Surface water quality at 8 locations	<ul style="list-style-type: none"> • pH: 7.24-8.2, • DO: 3.8 – 6.6 mg/l. • BOD: 2.4 – 12.5 mg/l • COD : 8.9 – 13.4 mg/l 																											
Noise levels	43.4 to 73.6 dBA - day time 38.8 To 63.9 dBA - Night time.																											
Traffic assessment study findings	<p>Traffic study has been conducted at NH#2 which is at 2.8 km from the project site.</p> <p>Transportation of raw material, fuel & furnished product will be done maximum by road.</p> <p>Existing PCU is 2448 PCU/hr on NH#2 and existing level of services (LOS) is:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity In PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH#2</td> <td>2448</td> <td>5400</td> <td>0.45</td> <td>B</td> </tr> </tbody> </table> <p>PCU load after proposed Project will be 2448 (Existing)+21 (Proposed) = 2469 PCU/hr and level of Services (LOS) will be:</p> <table border="1"> <thead> <tr> <th rowspan="2">Road</th> <th colspan="3">V (Volume in PCU/hr)</th> <th rowspan="2">C (Capacity in PCU/hr)</th> <th rowspan="2">Proposed V/C Ratio</th> <th rowspan="2">LOS</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>NH#2</td> <td>2448</td> <td>21</td> <td>2469</td> <td>5400</td> <td>0.45</td> <td>B</td> </tr> </tbody> </table> <p>Note: Capacity as per IRC 106:1990 guidelines for capacity for roads.</p> <p>Conclusion:</p> <p>The modified LOS on NH#2 will be remained “B”, i.e. Very Good. Therefore, there will be no change in LOS after completion of the project.</p>	Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS	NH#2	2448	5400	0.45	B	Road	V (Volume in PCU/hr)			C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	Existing	Proposed	Total	NH#2	2448	21	2469	5400	0.45	B
Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS																								
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	Existing	Proposed	Total																									
NH#2	2448	21	2469	5400	0.45	B																						
Flora and fauna	No schedule I fauna and endangered Flora reported in study area.																											

25.6.11 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S.No	Name	Quantity (TPA)	Utilization
1	DRI Char	25,410	100% In power generation and will be supplied to M/s Satyam Steel and Iron Pvt Ltd, Mangalpur Raniganj, Unit.
2	Ash/Dust from DRI	20,790	In civil construction purpose and Will be given to Brick manufacturers.
3	Kiln Accretion Slag	2090	Will be utilized in road construction
4	Wet Scraper sludge	18,810	Will be used in road construction & utilized in the proposed brick manufacturers.
5	Slag from Fe-Mn	15,819	Will be used in manufacture of Silico manganese as it contains high MnO ₂ .
6	Slag from Si-Mn	15,468	Will be given to nearby building contractor to be used as filling material for low lying area and for manufacturing fly Ash brick/ block making unit.
7	Slag from Fe-Si	2,506	Will be given to nearby building contractor to be used as filling material for low lying area and manufacturing fly Ash brick/ block making unit.
8	Bag filter Dust	18,268	Will be used for land filling and brick manufacturing.
9	Used Oil	2 KL/Annum	Will be given to Authorized recycler
10	Domestic Solid Waste	30	Will be given to Authorized recycler

25.6.12 Public Consultation:

Details of advertisement given	24.11.2022
Date of public consultation	26.12.2022
Venue	Hotel R. K. Continental, Beside Anjana Cinema Hall, N S B Road, Raniganj-713347, Paschim Bardhman, West Bengal
Presiding Officer	Additional District Magistrate Paschim Bardhman District, WB
Major issues raised	Air & water pollution control Health and education of the local peoples Steps to be taken to curb the ground dust polluting during vehicle movement. Employment opportunities for the local peoples.

Action plan as per MoEF&CC O.M. dated 30/09/2020:

S. No	Concerns raised during public hearing	Physical activity & action plan	Budget INR (Lakh)	Target for implementation of action plan	
				2023-24	2024-25
1	Improve Health Infrastructure in Area	Provide the Medical equipment to Government Hospital / Health Centre at Jamuria and Balanpur (Beds, Oxygen Cylinder, Oxygen Concentrator, AC, Air Purifier)	25 Lakh 10 Patient Bed - 6 Lakhs 20 O2 Cylinder - 5 Lakh 14 - Oxygen Concentrator - 8 Lakh 8 Air Purifier - 3 Lakh Sanitizer, stretcher, surgical gloves and Mask - 3 lakh	13 Lakhs Primary Health Center in Jamuria	12 Lakhs Primary Health Center in Balanpur
2	Providing employment to local people	Willing and employable youths will be identified in consultation with gram panchayat of Mondalpur, Jadudanga, Banali, Jamuria and Balanpur (30 Nos). They will be trained in nearby ITI for trades namely electrician, fitters, welders, painters, and civil construction work, etc. Fees will be paid by PP. After successful completion of training, the youths will be offered employment in company.	15 Lakhs Stipend-6 Lakhs (2000/- stipend to 30 persons for 1 year) ITI Fee - 9 Lakhs (30000/- yearly fee for 30 persons)	Training of 15 persons will be completed in 1 st year	Training of 15 persons will be completed in 2 nd year
3	Infrastructure development of	PP will make pucca kitchen with fume	32 Lakhs	16 Lakhs	16 Lakhs

S. No	Concerns raised during public hearing	Physical activity & action plan	Budget INR (Lakh)	Target for implementation of action plan	
				2023-24	2024-25
	local Primary Schools	exhaust, mid-day meals to students, provide furniture, computers, fans, tables, Upgradation of sanitation facility and colour printers in local schools at Village- Mondalpur, Jadudanga, Banali, Jamuria and Balanpur providing	4 Kitchen – 2 Lakhs 400 Tables & Chairs – 6 Lakhs 20 Computer – 10 Lakhs 20 Colour printer – 6 Lakhs Upgradation of sanitation facility – 6 Lakhs	PP will complete work in schools at Village- Mondalpur, Jadudanga and Banali,	PP will complete work in schools at Village- Banali and Jamuria
4	Plantation in nearby village and installation of AAQMS	PP will plant 10000 No's of trees in Village-Banali, Mondalpur, Jadudanga Jamuria and Balanpur and 2 AAQMS will be installed in	Rs. 18 Lakhs	9 Lakhs 5000 No's trees will be planted in Village-Banali, Mondalpur, Jadudanga and AAQMS in Banali Village.	9 Lakhs 5000 No's trees will be planted in Village- Jamuria and Balanpur and AAQMS in Jamuria Village
5	PP has also proposed to adopt one Village namely Bijpur village. Formulate village development program under consultation with local panchayat and district administration for need-based community development activities which would be in addition to the development plans being undertaken by state and central government. 1. Development of smart class, distribution of benches, Fans, RO water System, Upgradation of sanitary facility, Distribution of IT gadgets, Printers, Computers in schools present in Bijpur. 2. Installation of Solar Penal 3. Installation of AAQMS.		160 Lakhs	90 Lakhs	70 Lakhs

S. No	Concerns raised during public hearing	Physical activity & action plan	Budget INR (Lakh)	Target for implementation of action plan	
				2023-24	2024-25
	4. Plantation in Bijpur Village. 5. Upgradation of Medical facility. 6. Upgradation of existing infrastructure in village,				
Total			250 Lakhs		

25.6.13 The capital cost of the project is INR 230 Cr and the capital cost for environmental protection measures is proposed as INR 16.28 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs 2.7 Cr. The total employment generation from the proposed project is 300. The details of cost for environmental protection measures is as follows:

S. No	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Cr)
1	Air Emission Management		
	➤ Electro Static Precipitators (ESP)	3	1
	➤ Fume Extraction system with bag filters	0.5	
	➤ Multicyclones followed by Bag filters & others	0.50	
	➤ Stacks	1	
	➤ Water Sprinklers	0.50	
2	Wastewater Management		
	➤ for ETP (40 KLD) & STP (15 KLD)	0.50	0.20
	➤ Garland drains	0.50	
3	Solid waste Management		
	➤ Fly Ash Handling & disposal	0.75	0.55
	➤ Slag Handling & Disposal	0.50	
	➤ Hazardous waste storage & disposal	0.20	
	➤ Municipal solid waste storage & disposal	0.20	
4	Greenbelt development, Land scaping, Noise Management, RWH etc.	0.50	
5	Fire Safety Systems	0.70	0.20
6	Solar Power Plant	3.0	0.50
7	Environmental Monitoring		
	➤ AAQMS	0.20	0.15
	➤ CEMS	0.50	
	➤ Third party Monitoring	0.20	
8	Occupational Health & Safety		

S. No	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Cr)
	➤ PHC	0.50	0.10
	➤ PPEs	0.25	
	➤ Ambulance (additional)	0.25	
9	CER	2.03	Nil
Total		16.28	2.70

25.6.14 Proposed greenbelt will be developed in 2.06 ha which is about 33% of the total project area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 5160 saplings will be planted and nurtured in 2.06 hectares.

25.6.15 It is reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Written representations:

25.6.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 23.03.2023 through email dated 23.03.2023 submitted the following information:

S. No.	Observations	Reply
1.	PP should submit revised layout plan with different color code for different units.	The updated layout plan as per suggestions of Hon'ble Committee is submitted.
2.	Revised Action Plan to Address the PH issues	PP has submitted the Revised Action Plan to Address the PH issues and is updated at para 25.6. above.
3.	PP should develop thick greenbelt towards SE and WSW direction as Benali Sri C.K.C.T. high school is at 0.8 km in WSW direction and Balanpur F.P. School is at 0.9 km in SE direction from project site.	The updated layout plan with thick greenbelt towards school is submitted.
4.	PP should submit air dispersion modelling details w.r.t PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ and CO.	Air dispersion modelling has been carried for the proposed project. The value of GLC obtained for PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ and CO is given below :- PM ₁₀ = 2.90 µg/m ³ PM _{2.5} = 1.31 µg/m ³ SO ₂ = 4.1 µg/m ³ NO ₂ = 3.22 µg/m ³ CO = 1.47 µg/m ³ The isopleths for PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ and CO are submitted.

S. No.	Observations	Reply
5.	PP should submit the air pollution control measures.	Air pollution control management plan during construction and operation phase is submitted.

Deliberations by the Committee

25.6.17 The Committee noted the following:

1. The instant proposal is for setting up of a Greenfield Project for Production of Sponge Iron 1,15,500 TPA with 350 TPD DRI Kiln, Ferro Alloy Plant Product Mix of Silico Manganese (16,929 TPA) or Ferro Manganese (21,092 TPA) or Ferro Silicon (9,191 TPA) with 9 MVA Submerged Arc Furnace and WHRB based Captive Power Plant of 8 MW.
2. The ToR was initially granted to M/s. Manbhum Ispat Pvt. Ltd. vide File No. IA-J-11011/127/2022-IA-II(IND-I) dated 13.06.2023 for the said Greenfield Project located at Mouza- Mondalpur, Jadudanga, PS+PO-Jamuraia, Ranisayer -Jamuria Road, District Paschim Bardhaman, West Bengal. The ToR was transferred in the name of M/s. Satyam Iron & Steel Co Private Limited vide F. No. IA-J-11011/127/2022-IA-II(IND-I) dated 30.09.2022 as PP reported that M/s Satyam Iron & Steel Co. Pvt. Ltd. is already dealing in Sponge Iron and Power Plant. The unit already has an adequate technical, commercial and administrative team to establish and run the unit. M/s. Manbhum Ispat Pvt. Ltd. is engaged in manufacturing of heavy structural items only having no experience any other production activity. The PP further reported that the directors are common to both the companies are easily available near the factory site. It will assist in smoother and faster accomplishment of factory establishment and operation targets.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

6. Total land area is 6.26 ha which has been taken on lease basis and is under the possession of the company. PP has submitted the application for conversion of land for industrial purpose.
7. Benali Sri C.K.C.T. high school is at 0.8 km in WSW direction and Balanpur F.P. School is at 0.9 km in SE direction from project site.
8. The water requirement for the proposed project is estimated as 348.5 m³/day, which will be obtained from Asansol Municipal Corporation Water Supply. Application for the same has been submitted to Asansol Municipal Corporation through request letter dated 20.07.2022.
9. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
10. The EAC noted that greenbelt is proposed to be developed in 2.06 ha which is about 33% of the total project area. Total no. of 5160 saplings will be planted and nurtured in 2.06 hectares. The Committee deliberated on the action plan and budget allocation for green belt development and is of the view that the greenbelt shall be completed within a span of one year.
11. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
12. The Committee deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
13. The Committee also deliberated on the written submission of PP and found it satisfactory.
14. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
15. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

- 25.6.18 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 and subject to the stipulation of following specific conditions and general conditions;

A. Specific Condition:

- i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- ii. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- iii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iv. The water requirement of 348.5 m³/day for the proposed project shall be met from Asansol Municipal Corporation Water Supply after obtaining necessary permissions. No ground water extraction is permitted.
- v. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- vi. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
- vii. Scheme for 100% waste utilization shall be implemented. No dumping shall be permitted.
- viii. The 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.
- ix. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.
- x. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- xi. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- xii. Particulate matter emission from stacks shall be less than 30 mg/Nm³. Action plan submitted to limit the dust emission shall be strictly implemented.
- xiii. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- xiv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- xv. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.

- xvi. The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
- xvii. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.
- xviii. The PP shall install CO sensors at the furnace top level and the monitoring report shall be submitted to the IRO, MoEFCC in this regard.
- xix. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
- xx. Benali Sri C.K.C.T. high school is at 0.8 km in WSW direction and Balanpur F.P. School is at 0.9 km in SE direction from project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact of the project on these ESA's. Thick greenbelt towards SE and WSW direction within the plant premises shall be developed to minimise the impact of project activities.
- xxi. The PP shall undertake village adoption programme and implement a robust plan for socio-economic development of these villages to develop them into model villages in 10 years.
- xxii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xxiii. Three tier Green Belt shall be developed in at least 33% of the project area in a time frame of 1 year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy and wind shield to act as green barrier for air pollution & noise levels towards the Benali Sri C.K.C.T. high school in WSW direction and Balanpur F.P. School in SE direction inside the plant premises. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- xxiv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- xxv. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Integrated Regional Office of MoEF&CC.
- xxvi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its

surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

- xxvii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. Plant internal roads shall be concreted and a vacuum cleaner shall be used to regularly clean the roads.
- viii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- ix. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- v. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- vi. Tyre washing facilities shall be provided at the entrance/exit of the plant gates.

IV. Noise monitoring and prevention

- i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

- i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

- i. Used refractories shall be recycled as far as possible.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE).
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
- iv. The PP shall facilitate and collaborate with the Educational University/Institution primarily handling the issues related to Rural development and Panchayat Raj for the betterment of the people located within the study area of the project.
- v. The PP should develop farm ponds in agriculture areas and the village adoption program should focus on economic and ecological aspects as well besides other activities.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the

- Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
 - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 25.7

25.7 Expansion of Cement Plant (1.20 to 3.00 MTPA) and Clinker (1.10 to 2.21 MTPA) with 8.5 MW WHRS located in 48.71 ha, M/s Shree Digvijay Cement Company Ltd., located at P.O. Digvijaygram, Sikka, District Jamnagar, Gujarat - Consideration of Environmental Clearance.

**[Proposal No. IA/GJ/IND1/415935/2023; File No. IA-J-11011/409/2019-IA-II(IND-I)]
[Consultant: MIN MEC Consultancy Pvt. Ltd.; Valid Upto: 29.03.2025]**

- 25.7.1 M/s Shree Digvijay Cement Company Ltd. has made an online application vide proposal no. IA/GJ/IND1/415935/2023 dated 27.01.2023 along with copy of EIA/EMP report, Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at central level.
- 25.7.2 Name of the EIA consultant: M/s. MIN MEC Consultancy Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/IA0096; Valid up to 29.03.2025, as on March 23, 2023].
- 25.7.3 The proposal cited above was initially considered during the 24th meeting of the EAC for Industry-I sector held on 28th February - 1st March, 2023. After detailed deliberation, it was observed that:
1. The instant proposal is for enhancement of production capacity of Cement from 1.20 to 3.00 MTPA and Clinker from 1.10 to 2.21 MTPA along with existing 8.5 MW WHRS.
 2. As reported by PP, the company was established during 1944 and started commercial production of Cement / Clinker through wet process technology in the year of 1949. Dry Process Technology Cement / Clinker Plant’s commercial production commenced on 1st September 1985. Thus, the Cement Plant was in operation prior to the EIA Notification of 1994 & 2006. The cost of project was less than Rs. 50 crores at the time of notification of the EIA Notification 1994. Hence, the project was exempted from requirement of environment clearance under EIA notification 1994. PP shall submit the cost of the project as on 27.01.1994 and the basis for the same. The EAC is also of the opinion that PP shall submit an affidavit in this regard that have not exceeded the production levels and have not committed any violation under EIA Notification, 2006 in the instant case.
 3. Sikka (10 m, East to North), Nimaz Colony (20 m, South west), Mungni village (750m, South) and GSECL (TPS) colony (400 m, South East) falls within 10 km radius study area of the project site. Also, there are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary & Primary School (arial 45 m from plant boundary). Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.

4. A seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area. Gulf of Kachchh is at a distance of 0.5 km in the NW direction. The EAC is of the opinion that water bodies are required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures is not submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.
5. As reported, Marine National Park is at a distance of 3.48 km and its ESZ at a distance of 4.36 km. Also Marine Sanctuary is at a distance of 1.48 km from the project site. ESZ from the project site along with the authenticated map from State Forest Department and also ensuring the coordinates of the project site are to be mentioned in the certificate. Also, comments of ESZ division of MoEF&CC may be obtained whether the proposal falls outside the ESZ boundary of the Marine National Park and Marine Sanctuary.
6. There is no proper Engineering drawing of a layout. It is missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.
7. Further, PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.
8. The EAC deliberated on the baseline data and observed that the maximum values of PM10 and PM2.5 are very high. Also, some of the parameters of ground water such as Total hardness, chlorides and parameters of surface water such as BOD and COD are very high. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.
9. The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.
10. Two Schedule-I species namely Peafowl and Monitor Lizard were found within 10 km radius of the study area of the plant site during biological study. It is reported that Site Specific Wildlife Conservation Plan has been submitted to The Deputy Conservator of Forest, Jamnagar, Gujarat vide Letter no. SDCCL/EHS/F-14 dated 05.08.2022 and PP has

also received letter from PCCF (WL), Gandhinagar stating that our WL Conservation Plan is under approval. In this regard PP needs to submit the updated status on the approval of conservation plan.

11. The EAC deliberated on the details submitted pertaining to solid and hazardous waste generation along with its mode of treatment/ disposal and observed that PP has not taken into account all the major solid wastes generated out of operations. PP needs to re-visit the details and include the same in the EIA/EMP report.
12. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that that the EMP cost do not commensurate with the project cost. The EMP measures and associated cost needs to be revisited.
13. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the action plan does not justify the addressal of issues effectively. PP needs to revise the action plan in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.
14. The EAC noted, PP has reported that existing greenbelt has been developed in 2.58 ha area which is about 5.3% of the total project area of 48.71 ha with total sapling of 38000 trees. Considering that the plant operations are running for more than seven decades, PP has not been able to develop 33% greenbelt. PP shall submit the justification in this regard along with details of the greenbelt and photographs. Also, PP shall re-verify figures submitted in brief pertaining to planted saplings which appears to be wrong figure.
15. PP shall also submit the measures undertaken for conservation of mangroves.
16. The total water requirement of 240 m³/day after expansion is proposed to be obtained from ground water. PP shall explore the possibility to identify alternate source of water to fulfill its water requirement.
17. PP shall also submit the list of any show cause notices received from SPCB and their closure action, during last 3 years.
18. PP shall submit the details of jetty involved in the integrated project and whether required permissions have been obtained from the Competent Authority.
19. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be submitted.
20. The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.
21. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit of the sub-committee of the EAC to understand the ecological/environmental sensitivity of the area/ complexity of the project/ size of the

project and the various other issues involved in the project as mentioned above. In view of crucial project in terms of location and enormous number of issues are involved, the EAC is suggests to conduct the site visit through sub-committee so that all the issues are addressed accordingly for this project.

25.7.4 In view of the foregoing and after deliberations, the Committee recommended to defer the proposed project and recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. Hemant Sahasrabuddhe, Dr. Sanjay Bist, and Representative of MoEFCC, New Delhi to conduct the site visit and submit the factual Report covering all the issues. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC in the next meeting.

25.7.5 Accordingly, the EAC (Industry-1) sub-committee conducted a site visit to M/s Shree Digvijay Cement Company Ltd., located at P.O. Digvijaygram, Sikka, District Jamnagar, Gujarat on 15-16th March 2023.

25.7.6 At this instance, the proposal was further considered by the EAC (Industry 1) in its 25th meeting of the EAC for Industry-I sector held on 21st – 23rd March, 2023. The details of the proposed project are as follows:

Details submitted by Project proponent

25.7.7 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
01.06.2022	Standard ToR granted	Terms of Reference	07.07.2022	07.07.2025

25.7.8 The project of M/s Shree Digvijay Cement Company Limited located at P.O. Digvijaygram, Sikka, Jamnagar District, Gujarat State is for enhancement of production capacity of Cement from 1.20 to 3.00 MTPA and Clinker from 1.10 to 2.21 MTPA along with existing 8.5 MW WHRS.

25.7.9 Environmental Site Settings:

Sl. No	Particulars	Details	Remarks
i.	Total land	Land: 48.71 ha	Land use : 100% industrial
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The existing plant area is already in possession of the company and expansion shall be undertaken within the existing land. No additional land shall be required for proposed expansion of project.	

Sl. No	Particulars	Details	Remarks																		
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site : No habitation exist in the plant area so there is no R&R needed</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>SDCCL Colony</td> <td>20 m</td> <td>West</td> </tr> <tr> <td>Sikka</td> <td>10 m</td> <td>East to North</td> </tr> <tr> <td>Nimaz Colony</td> <td>20 m</td> <td>South west</td> </tr> <tr> <td>Mungni village</td> <td>750</td> <td>South</td> </tr> <tr> <td>GSECL (TPS) colony</td> <td>400 m</td> <td>South East</td> </tr> </tbody> </table>	Habitation	Distance	Direction	SDCCL Colony	20 m	West	Sikka	10 m	East to North	Nimaz Colony	20 m	South west	Mungni village	750	South	GSECL (TPS) colony	400 m	South East	
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v.	Elevation of the project site	8-17 m above mean sea level																			
vi.	Involvement of Forest land if any.	No forest land involved																			
vii.	Water body exists within the project site as well as study area	<p>Project Site: A seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area.</p> <p>Study area :</p> <table border="1"> <thead> <tr> <th>River/ Nala</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gulf of Kachch</td> <td>0.5</td> <td>NW</td> </tr> <tr> <td>Sasoi River</td> <td>6.6</td> <td>E</td> </tr> <tr> <td>Phuljar River</td> <td>8.4</td> <td>SSW</td> </tr> <tr> <td>Bed Dam</td> <td>7.9</td> <td>E</td> </tr> </tbody> </table>	River/ Nala	Distance (km)	Direction	Gulf of Kachch	0.5	NW	Sasoi River	6.6	E	Phuljar River	8.4	SSW	Bed Dam	7.9	E	Project is outside CRZ area which has been certified by National Centre for Sustainable Coastal Management (NCSCM) (MoEF&CC), Chennai in January 2020			
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Sl. No	Particulars	Details	Remarks																		
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>Study area Name of the ESZ/ESA: (1) Marine National Park, (2) ESZ, (3) Marine Sanctuary Status of Notification: 22.08.2013 of ESZ Distance of project from ESZ/ESA: (1) Marine National Park 3.48 km, (2) ESZ 4.36 km, (3) Marine Sanctuary 1.48 km Authenticated map of ESZ projecting distance of ESZ from project site: received from Deputy Conservator of Forest, Marine National Park, Jamnagar, Gujarat Status of NBWL approval: Not applicable List of reserved and protected forests within study area :</p> <table border="1"> <thead> <tr> <th>Name of forest</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>RF Near Sarmat</td> <td>8.1</td> <td>ENE</td> </tr> <tr> <td>RF Near Khatia Bareja</td> <td>9.2</td> <td>SSW</td> </tr> <tr> <td>Mangrove Swamp Near Sikka</td> <td>1.8</td> <td>NE</td> </tr> <tr> <td>Mangrove Swamp Near Patra Van Creek</td> <td>6.6</td> <td>NE</td> </tr> <tr> <td>Mangrove Swamp Near Mangeti Khadi</td> <td>9.4</td> <td>WNW</td> </tr> </tbody> </table>	Name of forest	Distance (km)	Direction	RF Near Sarmat	8.1	ENE	RF Near Khatia Bareja	9.2	SSW	Mangrove Swamp Near Sikka	1.8	NE	Mangrove Swamp Near Patra Van Creek	6.6	NE	Mangrove Swamp Near Mangeti Khadi	9.4	WNW	The certificate from the Competent Authority along with the authenticated map showing the distance of Marine National Park and its ESZ from the project site boundary from Deputy Conservator of Forest, Marine National Park, Jamnagar, Gujarat vide letter dated 10/10-11/2022 is submitted.
Name of forest	Distance (km)	Direction																			
RF Near Sarmat	8.1	ENE																			
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25.7.10 The Company was established during 1944 and started commercial production of Cement / Clinker through wet process technology in the year of 1949. Dry Process Technology Cement / Clinker Plant's commercial production commenced on 1st September 1985. Thus, the Cement Plant was in operation prior to the EIA Notification of 1994 & 2006. The cost of project was less than Rs. 50 crores at the time of notification of the EIA Notification 1994 i.e. it was Rs. 32.61 crore at time of establishment of dry process in 1985 based on the certificate from Chartered Accountant submitted. Hence, the project was exempted from requirement of environment clearance under EIA notification 1994. No expansion was undertaken thereafter till date. The existing project was accorded latest Consent to Operate by Gujarat Pollution Control Board, vide Consent Order No.AWH-102081 dated 03.06.2019 valid till 25.03.2024.

25.7.11 Implementation status of the existing CTE/CTO:

Sl. No.	Facilities	Units as per CTE	Implementation status as on Jan 2023	Production as per CTO
1	Cement Plant (with clinker manufacturing)	1.20 MTPA	100% operational	1.20 MTPA
2	Power generation from Waste heat	8.5 MW	100% installed but recovery 3.6 MW during operation.	8.5 MW

25.7.12 The unit configuration and capacity of existing and proposed project is given as below:

Sl. No.	Plant Equipment/ Facility	Existing facilities		Proposed Units		Final (Existing + Proposed)		Remarks
		Configur-ation	Capacity	Configu-ration	Capacity	Config-uration	Capacity	
1.	Cement plant	1 no. X 1.2 MTPA	1.2 MTPA	1 no. X 1.8 MTPA	1.8 MTPA	1 no. X 1.2 + 1 no. X 1.8 MTPA	3.0 MTPA	
2.	Clinker plant	1 no. X 1.10MTPA	1.10MTPA	1 no. X 1.11 MTPA	1.11 MTPA	1 X 1.10 + 1 no. X 1.11 MTPA	2.21 MTPA	Not mentioned separately In CTO
3.	Power generation from Waste heat	8.5 MW	8.5 MW	0	0	8.5 MW	8.5 MW	100% installed but recovery 3.6 MW during operation

25.7.13 The details of the raw material requirement for the proposed expansion project along with its source and mode of transportation is given as below:

Sl. No.	Raw material	Quantity required per annum			Source	Distance from site (Kms)	Mode of transportation
		Existing (TPA)	Expansion (TPA)	Total (TPA)			
1	Limestone	1668303	1675869	3344172	Own Mines - production capacity : <ul style="list-style-type: none"> ● Gop- 0.25 MTPA ● Pachhtar - 1 MTPA ● Chorbedi- 0.9 MTPA ● Pachhtardi - 0.35 MTPA 	95 – 125 km	By trucks
					Purchase from Local Market	100 – 150 km	
2	Sandstone	34398	34554	68952	Gujarat	200 - 250 km	By trucks
3	Iron Ore	17199	17277	34476	Gujarat (usually Chotila)	300 -400 km	By trucks

Sl. No.	Raw material	Quantity required per annum			Source	Distance from site (Kms)	Mode of transportation
		Existing (TPA)	Expansion (TPA)	Total (TPA)			
4	1) Coal / Pet coke	170814	148848	319662	Imported Coal/ Domestic Coal/ Petcoke/ Lignite	Imported (port ~50 km)/ Domestic	By trucks / By dumpers / By Sea
	2) Alternate Fuel (Plastic waste / Municipal waste / RDF / etc.)				Gujarat	~500	By trucks / By tankers
5	Clinker	898696	1284104	2182800	in house & purchase	Within plant, Within Gujarat (when purchased)	Conveyors, Trucks (when purchased)
6	Fly ash	235974	418026	654000	Local (Various Power Plants)	20 – 400 km	By trucks / bulklers
7	Mineral Gypsum/ Marine Gypsum/ Chemical gypsum/ Phospho gypsum/ PP Mold / etc.	65330	97870	163200	Local/ Import	100 – 300 km	By trucks / By Sea
Total		3090714	3676548	6767262			

25.7.14 Existing Water requirement is 150 m³/day, water requirements is obtained from the existing tube wells within the plant premises and permission for the same has been obtained from Central Ground Water Authority (CGWA), Govt. of India vide NOC letter no. CGWA/NOC/IND/ORIG/2021/12448 dated 13/07/2021 valid till 12/07/2024 for a quantity of 250 m³/day. The additional water requirement for the proposed project is estimated as 90 m³/day and will be met from same ground water source and above permission. The company is exploring the possibility of obtaining about 34 KLD of water from Sasoi and/ or Narmada River.

25.7.15 Existing power requirement of 15.1 MW is obtained from WHRS (3.6 MW) and state electricity grid (11.5 MW). The power requirement for the proposed project is estimated as additional 15.9 MW, out of which 4.9 MW will be obtained from the WHRS and 12.5 MW form the state electricity grid.

25.7.16 Baseline Environmental Studies:

Period	March to May 2021
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AAQ parameters at 8 Locations(min and max)	<ul style="list-style-type: none"> • PM_{2.5} = 52.2 to 88.0 µg/m³ • PM₁₀ = 28.7 to 51.5 µg/m³ • SO₂ = 10.0 to 28.0 µg/m³ • NO_x = 13.7 to 34.9 µg/m³ • CO = 0.115 to 0.802 mg/m³ 																				
Incremental GLC level	<ul style="list-style-type: none"> • Due to expansion based on air quality prediction modelling: • PM 10 = 2.838 µg/m³; (level at 300 m in E direction) • PM_{2.5} = 0.612 µg/m³; (level at 300 m, E direction) • SO₂ = 3.014 µg/m³ (level at 1.6 km in E direction) • NO_x = 13.264 µg/m³ (level at 1.6 km in E direction) 																				
Ground water quality at 8 locations	pH: 7.2 to 7.5, Total Hardness: 308 to 1448 mg/l, Chlorides: 102 to 982 mg/l, Fluoride: 0.23 to 0.72 mg/l. Heavy metals are within the limits.																				
Surface water quality at 8 locations	pH: 7.3 to 8.8, DO: 2.5 to 7.5 mg/l, BOD: 9 to 240 mg/l and COD: 19 to 670 mg/l																				
Noise levels Leq (day and night)	50.39 to 68.78 dBA for the day time and 40.80 to 63.37 dBA for the Night time at 9 locations																				
Traffic assessment study findings	<ul style="list-style-type: none"> • Traffic study has been conducted at (1) T1- Road from Plant to National Highway 947 near material gate., (2) T2- Road from Nani Khavadi Village to NH947, near H P Petrol- Pump and (3) T3-Road from Jamnagar to Khambhalia, at toll plaza near Bed village. • Transportation of raw material, fuel & finished product will be done almost 100% by road. • Existing PCU and Level of Service (LoS) is given below: <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/ hr.)</th> <th>Existing V/C Ratio</th> <th>LoS</th> </tr> </thead> <tbody> <tr> <td>Plant to National Highway 947, near material gate.</td> <td>761</td> <td>1286</td> <td>0.59</td> <td>C</td> </tr> <tr> <td>Nani Khavadi Village to NH947, near H P Petrol- Pump</td> <td>1260</td> <td>1714</td> <td>0.78</td> <td>C</td> </tr> <tr> <td>Jamnagar to Khambhalia, toll plaza near Bed village</td> <td>3970</td> <td>5143</td> <td>0.77</td> <td>C</td> </tr> </tbody> </table>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/ hr.)	Existing V/C Ratio	LoS	Plant to National Highway 947, near material gate.	761	1286	0.59	C	Nani Khavadi Village to NH947, near H P Petrol- Pump	1260	1714	0.78	C	Jamnagar to Khambhalia, toll plaza near Bed village	3970	5143	0.77	C
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	<ul style="list-style-type: none"> PCU load after proposed project will be Existing volume as given in above table + 78 (additional PCU/hr) and level of service (LOS) will be as follows: 																				
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	Note: Capacity as per IRC-106-1990 Guide line for capacity for roads.																				
	Conclusion: The level of service will C after including additional traffic due to proposed project.																				
Flora and fauna	Peafowl and Monitor Lizard are the schedule I fauna. Wild Life Conservation Plan has been approved by the Chief Wildlife Warden Gujarat State, Gandhinagar vide letter no. WLP/32/C/T-1&2/5233-36/2022-23 on 06-03-2023.																				

25.7.17 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl. No.	Type of waste	Quantity			Mode of disposal	Agreement details for disposal
		Existing	Proposed	Total		
1	Solid Waste (ESP, bagfilters and housekeeping (TPA))	7,88,214	7,69,048	15,57,262	100% will be recycled in the plant itself.	In-house
2	Hazardous Waste (Used oil & grease) (kg/ annum))	7,440	5,000	12,440	will be handed over to authorized CPCB/ SPCB authorized recycling vendors / co-processed.	-

25.7.18 Public Consultation:

Details of advertisement given	English Newspaper - The Times of India dated 15.12.2022 Gujarati News paper - Sandesh dated 15.12.2022 (typing error correction published on 16.12.2022)
Date of public consultation	17.01.2023
Venue	Open Plot in premises of Digvijay Cement Company Limited, Old Survey. No. 51/1, (New Survey. No. 393) & Old Survey. No. 52, (New Survey. No. 402) Near Shree Dham Guest House, Village Digvijaygram, Sikka, Taluka Jamnagar, District Jamnagar
Presiding Officer	District Collector and District Magistrate, Jamnagar
Major issues raised	i. Education ii. Health Care iii. Pollution control iv. Livelihood Support v. Restoration of Sports and religious festivals vi. Roads vii. Community infrastructure development viii. Employment

Table: Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

	Physical activity and action plan		Year of Implementation (Budget in Rs. Lakhs)			Total Budget (in Rs. Lakhs)
			Year 1	Year 2	Year 3	
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	Total
1	Education		64.79	64.79	64.79	194.4
1.1	School infrastructure development and additional support for needy children	Support to poor children (40 nos) of villages Sikka, Bhunga, Ramnagar & Mungani	4.59	4.59	4.59	13.78
		Free computer training to students (20 nos.) of villages Sikka, Bhunga, Ramnagar & Mungani	6.00	6.00	6.00	18.00
		Free Stitching classes to girl students (20 nos.) of villages Sikka, Bhunga, Ramnagar & Mungani	6.00	6.00	6.00	18.00
		Support to school infrastructure needs	18.20	18.20	18.20	54.60
1.2	Promotion of girl education and higher studies	Monitory support for needy and from poor background girl children for education and higher studies. (15 nos.) of villages Sikka, Bhunga, Ramnagar & Mungani	30.00	30.00	30.00	90.00

	Physical activity and action plan		Year of Implementation (Budget in Rs. Lakhs)			Total Budget (in Rs. Lakhs)
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	Total
2	Health Care		55.00	55.00	55.00	165.00
2.1	Provision of Health care	Quarterly health checkup by a team of Doctor, Paramedical staffs, technicians with free distribution of medicines in villages Sikka, Bhunga, Ramnagar, Shree Jee Colony & Mungani in rotation	20.00	20.00	20.00	60.00
2.2	Awareness programmes on health issues	Health awareness programmes on water borne, vector borne, communicable diseases and other health related issues annually in villages Sikka, Bhunga, Ramnagar, Shree Jee Colony & Mungani in rotation	12.50	12.50	12.50	37.50
2.3	Assistance to old age people / Persons with Disabilities	Necessary guidance to old age persons by CSR team to get maximum benefit from different Central/ State govt. schemes in PPP mode in villages Sikka, Bhunga, Ramnagar, Shree Jee Colony & Mungani in rotation	12.50	12.50	12.50	37.50
2.4	Animal Health Camp/ Veterinary Services	Doctor (01 nos.) on call will cater the needs of the surrounding population.	10.00	10.00	10.00	30.00
3	Pollution control		41.64	41.64	41.64	124.92
3.1	Water sprinkling	On approach roads towards raw material gate	6.00	6.00	6.00	18.00
3.2	Concreting of roads	Captive jetty to plant and public road near "G"- Type	25.00			25.00
3.2	Concreting of roads	Road of Sikka to Digvijaygram		25.00		25.00
3.2	Concreting of roads	Road connecting Rokadia Hanuman Temple to Sikka			25.00	25.00
3.4	Collection and processing of Solid Waste from nearby villages	Collection system for plastic waste and consumption as alternate fuel (Collection Truck 1 nos. with Manpower). Installation of 25 nos, dustbins at public places of villages.	10.64	10.64	10.64	31.92

	Physical activity and action plan		Year of Implementation (Budget in Rs. Lakhs)			Total Budget (in Rs. Lakhs)
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	Total
4	Livelihood Support		25.00	25.00	25.00	75.00
4.1	Support to SHG	Providing skill development training and financial as well as other supports will be extended for promotion of livelihood programmes. A) Distribution of Sewing Machine to nearby community (10 nos.) B) Training and Education on Computer & Stitching classes for dependents and ladies (25 nos.) Target villages : Sikka, Ramnagar, Bhunga, Housing Board, Shree jee colony	25.00	25.00	25.00	75.00
5	Restoration of Sports and religious festivals		25.00	25.00	25.00	75.00
5.1	Financial assistance for cultural programme	Financial assistance for different cultural programmes in periphery villages.	18.00	18.00	18.00	54.00
5.2.1	Sport activities	Promote sports activities in villages A) Creating sports ground at Kalyan Kendra, Digvijaygram.	2.50	2.50		5.00
5.2.2	Sport activities	Promote sports activities in villages B) Development of cricket ground at DCC.	4.50	4.50	3	12.00
5.2.3	Sport activities	Promote sports activities in villages C) Volleyball ground at Kalyan Kendra, Digvijaygram.			2	2.00
5.2.4	Sport activities	Promote sports activities in villages D) Children play area, near Market area, Digvijaygram.			2	2.00
6	Roads		30.00	30.00	30.00	90.00
6.1	Maintenance of road	Repairing and maintenance of road in villages of Sikka,	30.00	30.00	30.00	90.00

	Physical activity and action plan		Year of Implementation (Budget in Rs. Lakhs)			Total Budget (in Rs. Lakhs)
			Year 1	Year 2	Year 3	Total
	Name of the Activity	Physical Target				
		Ramnagar, Bhunga, Housing Board & Mungani				
7	Community infrastructure development		60.00	60	55	175.00
7.1	Development of community Infrastructure	Different community infrastructure like Club, Kalyan mandap etc. in phase manner. (Year -1 Construction of cultural Mandap near Bhunga / Ramnagar village)	30.00	30	30	90.00
7.2	Development of Village infrastructure	A) Development of connection of water supply (Near Bhunga/ Ramnagar).	30.00			30.00
		B) Drinking water source near market area.		30		30.00
		C) Water harvesting project, street lights, drainage system, temple etc. in villages of Sikka, Ramnagar, Bhunga, Housing Board & Mungani (Third Year)			25.00	25.00
8	Employment		25.00	25.00	25.00	75.00
8.1	Local employment	Skill enhancement programs for workers in villages of Sikka, Bhunga, Mungani, to support local employment based on their skill, capability, qualification, experience etc. at the time of employment.	25	25	25	75.00
9	Plantation		2.50	5.00	5.00	76.25
9.1	Development of Mangrooves at Jetty area	Mangrove plantation as part of plantation drive nearer colony (25 ha)	2.5	5	5	12.50
		Mangrove plantation around Jetty (7.5 ha)	1.25	1.25	1.25	3.75
9.1	Plantation in nearby villages	Plantation of native trees in Sikka, Ramnagar, Bhunga villages	20	20	20	60.00
	GRAND TOTAL		328.93	331.43	326.43	1,050.55
PP will adopt one village named "DIGVIJAYGRAM" for complete development under village adoption plan						

25.7.19 The existing capital cost of project was Rs. 32.61 crore at time of establishment of dry process in 1985. The capital cost of the proposed project is Rs. 675 Cr and the capital cost for environmental protection measures is proposed as Rs 43.68 Crore (excluding addressal of public consultation concerns). The annual recurring cost towards the environmental protection measures is proposed as Rs 6.62 Crore. The employment generation from the proposed project/expansion is 379 (direct) & 780 (indirect) persons. The details of the cost for environmental protection measures is as follows:

Description	Existing (Rs. in lakhs)		Proposed (Rs. in lakhs)	
	Capital Cost	Recurring cost	Capital Cost	Recurring cost
Air pollution control	207.00	775.56	4115.00	612.39
Water pollution control	108.00	18.58	36.00	1.68
Noise pollution control	10.00	3.17	10.00	0.33
Environment Monitoring	99.10	32.50	160.50	15.00
Occupational health	49.5	18.04	12.5	4.41
Green belt	6.45	2.54	34.05	4.54
Others	0.00	32.81	0.00	24.14
Total	480.05	883.2	4368.05	662.49

25.7.20 Existing greenbelt has been developed in 2.58 ha area which is about 5.3% of the total project area of 48.71 ha with total sapling of 6400 trees. Proposed greenbelt will be developed in 13.61 ha which is about 27.9% of the total project area. Thus, total of 16.19 ha area (33.26% of total project area) will be developed as greenbelt with total 40,045 nos. of trees plantation. A 4 to 200 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 33645 saplings will be planted and nurtured in 13.61 ha in next monsoon. The Company had provided support to Forest & Environment Department, Government of Gujarat in the year 2005-05 to undertake mangrove plantation. The company has proposed measures and budget of Rs. 19 lakhs for conservation of mangroves as a part of the Wildlife Conservation Plan during the next three years.

25.7.21 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

However, the following show cause notices had been received from Gujarat Pollution Control Board and closed in last three years:

- Notice from GPCB vide letter no. GPCB/HAZ-GEN-628(4)/684250 dated 26.09.2022 and status of compliance submitted vide letter No. SDCCL/EHS/F-01 dated 29.09.2022
- Notice from GPCB vide letter no. SCN-673463 dated 27/05/2022 and status of compliance submitted vide letter dated 11.06.2022
- Notice from GPCB vide letter no. 17132 dated 25.08.2021 and status of compliance submitted vide letter no. SDCCL/EHS/F-01 dated 26.08.2021

- Notice from GPCB vide letter no. GPCB/CCA-JMN-CCA-145(13)/ID-17132 dated 12/06/2020 and status of compliance submitted vide letter No. SDCCL/GPCB/KK/17132/2020 dated 19/06/2020

Certified compliance report from CPCB

25.7.22 The status of compliance of consent to operate (CCA Order No. AWH-102081 dt. 03.06.2019) was obtained from Regional Office, Jamnagar of GPCB vide letter no. GPCB-CCA-JMN-145(15)/ID-17132/684346 dated 15.10.2022 to MoEF&CC. As per the report of IRO, all conditions have been complied with.

Findings of EAC (Industry-1) sub-committee:

25.7.23 The observations and recommendations of the EAC (Industry-1) sub-committee based on the site visit to M/s Shree Digvijay Cement Company Ltd., located at P.O. Digvijaygram, Sikka, District Jamnagar, Gujarat on 15-16th March 2023 are as follows:

Observation of Sub-committee:

1. The sub-committee observed that the layout plan is not in accordance to the environmental considerations i.e., poor road networking, improper display of area statement and indexing, poor placement of Green Belt, inappropriate drainage disposal system, poor water conservation plan.
2. It was observed that the rain water harvesting system has been executed in a proper way in the residential area outside the plant premises.
3. It was also observed that the PP established a good housekeeping system within the plant premises.
4. There are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary &Primary School (arial 45 m from plant boundary). It was observed that although the said distances are from the project boundary, however, the distances of these schools are more than 450 m from the stag.
5. A well established and advanced laboratory has been developed within the plant premises along with a proper indicative measures such as calibration, Testing of Materials, process monitoring, etc.
6. It was observed that the value of PM₁₀ and PM_{2.5} are higher, however, the PP ensure to develop a proposed green belt afresh as cited in recommendation below. Habitation around the Unit was observed, which were developed after the establishment of the proposed Unit.
7. The green belt was not developed up to the required standard. The PP admitted this fact and ensured for the development of required green belt as desired by the Sub-Committee.
8. It was observed that the ecological/environmental sensitivity of the Plant site/area need certain improvement as mentioned in the recommendation part.

Recommendations of the Sub-Committee:

1. Considering the fact regarding the existence of the two schools i.e., SDDCL Public School and SDDCL Pre Primary &Primary School at the distance of 20 meters and 45 meters, respectively, from the project boundary, but their distances are around 450 meters from the

Stack. In this behalf, it is submitted that plant was established earlier than both schools. In view of the above, a dense vegetation/plantation must be developed around the schools.

2. After due verification and detailed discussion, it is recommended that the PP shall provide a revised layout drawing, contour drawing with drainage disposal system with Designs and Calculations, and existing and proposed green belt with area calculations and evaluation of number of trees @2500 per Ha in the Plant and their proper placement.
3. The PP shall prepare three different layout drawing with showing a smooth channelization of traffic inside the plant with proper indication of indexing in different colour codes in order to have these drawing self-explanatory.
4. In order to improve PM₁₀ & PM_{2.5} the PP shall provide a green belt plan along the periphery wherever it is possible and on open areas in the plant premises. Further, in addition to the 33% green belt area, the PP shall develop a strip of green-belt out-side the plant area.
5. During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.
6. The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, etc.
7. The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.
8. PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).
9. The PP shall comply with all the aforementioned recommendations and deliberations as mentioned in the MoM of the 24th EAC (Ind-1) meeting.
10. As per recommendations, the PP/Consultant has to submit a revised EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.

25.7.24 Based on the points raised by the EAC during its 24th meeting of the EAC for Industry-I sector held on 28th February – 1st March, 2023, and the recommendations made by the EAC (Industry-1) sub-committee, PP uploaded the ADS reply vide its letter dated 10.03.2023 uploaded on PARIVESH portal on 10.03.2023 as detailed below.

(A) Reply to the ADS Points raised by EAC during its 24th meeting held on 28th February - 1st March, 2023

Sl. No.	ADS Point raised by the EAC during 28th February – 1st March, 2023	Submission of PP
1.	The instant proposal is for enhancement of production capacity of Cement from 1.20 to 3.00 MTPA and Clinker from 1.10 to 2.21 MTPA along with existing 8.5 MW WHRS.	-
2.	As reported by PP, the company was established during 1944 and started	The cost of the project as on 27.01.1994 was Rs. 46.12 crores. The basis of this is the Certificate issued by the

Sl. No.	ADS Point raised by the EAC during 28 th February – 1 st March, 2023	Submission of PP
	<p>commercial production of Cement / Clinker through wet process technology in the year of 1949. Dry Process Technology Cement / Clinker Plant's commercial production commenced on 1st September 1985. Thus, the Cement Plant was in operation prior to the EIA Notification of 1994 & 2006. The cost of project was less than Rs. 50 crores at the time of notification of the EIA Notification 1994. Hence, the project was exempted from requirement of environment clearance under EIA notification 1994. PP shall submit the cost of the project as on 27.01.1994 and the basis for the same. The EAC is also of the opinion that PP shall submit an affidavit in this regard that have not exceeded the production levels and have not committed any violation under EIA Notification, 2006 in the instant case.</p>	<p>Chartered Accountant (with explanation) dated 01.03.2023 (submitted). PP has further reported that as per Affidavit dated 11.02.2023 (submitted), the production levels have never been exceeded and Company has not committed any violation under EIA Notification, 2006</p>
3.	<p>Sikka (10 m, East to North), Nimaz Colony (20 m, South west), Mungni village (750m, South) and GSECL (TPS) colony (400 m, South East) falls within 10 km radius study area of the project site. Also, there are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary & Primary School (arial 45 m from plant boundary). Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.</p>	-
4.	<p>A seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area. Gulf of Kachchh is at a distance of 0.5 km in the NW direction. The EAC is of the opinion that water bodies are required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil</p>	<p>The seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area which will not be disturbed. The drainage can be seen in the layout map submitted.</p> <p>Erosion control scheme comprises of :</p> <ul style="list-style-type: none"> • Landscaping and tree plantation to protect against soil erosion and subsequent change in topography during heavy rains. • Mulching in green areas, where required

Sl. No.	ADS Point raised by the EAC during 28 th February – 1 st March, 2023	Submission of PP																								
	<p>conservation scheme and multiple Erosion control measures is not submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.</p>	<ul style="list-style-type: none"> Excavation work will be carried out during dry season and avoided during rainfall events to prevent soil erosion and washout of excavated materials. <p>Rain water harvesting comprises of the following:</p> <p>The plant site falls in semi-arid zone with the average rainfall of 417 mm/yr. Considering the importance of water as an essential natural resource. Company is not only optimizing its process water requirements but also creating large water storage structures in its adjoining township area in order to maximize the groundwater harvesting initiatives. Company has created four nos. of water pounds in township area to catch maximum surface runoff.</p> <p>There are two water harvesting structures in the plant area as follows:</p> <table border="1"> <thead> <tr> <th>RWH structure</th> <th>Dia, m</th> <th>Depth, m</th> <th>Volume, cum</th> </tr> </thead> <tbody> <tr> <td>RWH tank</td> <td>15</td> <td>4</td> <td>707</td> </tr> <tr> <td>Raw water tank</td> <td>31</td> <td>6.1</td> <td>4602</td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td>5308</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td>Rain water harvesting (over 16-17 days):</td> <td>5308</td> </tr> <tr> <td>Losses (over 90 days):</td> <td>2128 KL</td> </tr> <tr> <td>Water available for use (over 90 days):</td> <td>3180 KL i.e. 35 KLD (14.5% of daily demand)</td> </tr> <tr> <td>Balance 240 days</td> <td>Harvested water not available</td> </tr> </tbody> </table>	RWH structure	Dia, m	Depth, m	Volume, cum	RWH tank	15	4	707	Raw water tank	31	6.1	4602	Total			5308	Rain water harvesting (over 16-17 days):	5308	Losses (over 90 days):	2128 KL	Water available for use (over 90 days):	3180 KL i.e. 35 KLD (14.5% of daily demand)	Balance 240 days	Harvested water not available
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5.	<p>As reported, Marine National Park is at a distance of 3.48 km and its ESZ at a distance of 4.36 km. Also Marine Sanctuary is at a distance of 1.48 km from the project site. ESZ from the project site along with the authenticated map from State Forest Department and also ensuring the coordinates of the project site are to be mentioned in the certificate. Also, comments of ESZ division of MoEF&CC may be obtained whether the proposal falls outside the ESZ boundary of the Marine National Park and Marine Sanctuary.</p>	<p>The certificate (Gujarati & notarised English translation) from the Competent Authority along with the authenticated map showing the distance of Marine National Park and its ESZ from the project site boundary from Deputy Conservator of Forest, Marine National Park, Jamnagar, Gujarat vide letter dated 10/10-11/2022 is submitted. The distances from the MNP/MS/ESZ is as follows:</p> <table border="1"> <thead> <tr> <th>Boundary of</th> <th>Shortest distance from project</th> </tr> </thead> <tbody> <tr> <td>Marine National Park</td> <td>3.48 km</td> </tr> <tr> <td>Eco-sensitive zone</td> <td>4.36 km</td> </tr> <tr> <td>Marine Sanctuary</td> <td>1.48 km</td> </tr> </tbody> </table>	Boundary of	Shortest distance from project	Marine National Park	3.48 km	Eco-sensitive zone	4.36 km	Marine Sanctuary	1.48 km																
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6.	<p>There is no proper Engineering drawing of a layout. It is missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In</p>	<p>The plant layout has been revised and submitted. The break up of plot area is given below:</p>																								

Sl. No.	ADS Point raised by the EAC during 28 th February – 1 st March, 2023	Submission of PP					
		Sl. No.	Description	Area (sq.m.)			Percent
	<p>Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.</p>			Existing	Additional	Total	
		1	Plants & facilities, railway siding, raw material storage yards & product storage	300157	-80000	220157	45.2
		2	Water reservoir	956	0	956	0.2
		3	Green belt & plantation	25825	136170	161995	33.26
		4	Roads	32000	0	32000	6.57
		5	Parking	6,300	14,731	21031	4.32
		6	Administration Office	27128	0	27128	5.57
		7	Open space	94743	-70901	23842	4.89
		Total	487109	0	487109	100.00	
7.	Further, PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.	The village to be adopted will be Digvijaygram (part of Sikka). The activities that shall be carried out are submitted in detail.					
8.	The EAC deliberated on the baseline data and observed that the maximum values of PM10 and PM2.5 are very high. Also, some of the parameters of ground water such as Total hardness, chlorides and parameters of surface water such as BOD and COD are very high. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.	-					
9.	The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.	Technical EIA Guidance Manual for Cement Industry” prepared by IL&FS (August 2010) for Ministry of Environment and Forests, Govt. of India and available on the MOEF&CC website, states that carbon mono-oxide forms due to insufficient supply of oxygen in the air – fuel mix. Since complete combustion of fuel is always attempted with excess air, normally, no trace of CO should be found in the					

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		exit gas. Therefore, incremental GLC for CO has not been calculated.																																					
10.	Two Schedule-I species namely Peafowl and Monitor Lizard were found within 10 km radius of the study area of the plant site during biological study. It is reported that Site Specific Wildlife Conservation Plan has been submitted to The Deputy Conservator of Forest, Jamnagar, Gujarat vide Letter no. SDCCL/EHS/F-14 dated 05.08.2022 and PP has also received letter from PCCF (WL), Gandhinagar stating that our WL Conservation Plan is under approval. In this regard PP needs to submit the updated status on the approval of conservation plan.	Wild Life Conservation Plan has been approved by the Chief Wildlife Warden Gujarat State, Gandhinagar vide letter no. WLP/32/C/T-1&2/5233-36/2022-23 on 06-03-2023. Copy is submitted.																																					
11.	The EAC deliberated on the details submitted pertaining to solid and hazardous waste generation along with its mode of treatment/ disposal and observed that PP has not taken into account all the major solid wastes generated out of operations. PP needs to re-visit the details and include the same in the EIA/EMP report.	<p>The project is a cement plant where the major solid wastes are from material handling and air pollution control equipment. Those are 100% recycled back into the process. Hazardous wastes are co-processed or given to authorised recyclers. The likely major solid and hazardous waste generated from entire (existing and proposed) plant facilities is given in Table below:</p> <p>Table : Major solid and hazardous waste generation</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Solid waste</th> <th>Existing</th> <th>Proposed additional</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td colspan="5">A Solid Waste</td> </tr> <tr> <td>1</td> <td>ESP, bagfilters and housekeeping (TPA)</td> <td>7,88,214</td> <td>7,69,048</td> <td>15,57,262</td> </tr> <tr> <td colspan="5">B Hazardous Waste</td> </tr> <tr> <td>1</td> <td>Used oil & grease (kg/ annum)</td> <td>7440 *</td> <td>~ 5000</td> <td>12440</td> </tr> </tbody> </table> <p>*(based on environment statement of 2020-21)</p> <p>The other solid wastes likely to be generated from the 3.0 MTPA plant are listed in Table below:</p> <p>Table : Other solid waste generation</p> <table border="1"> <thead> <tr> <th>Name of the waste</th> <th>Source</th> <th>Quantity (TPA)</th> </tr> </thead> <tbody> <tr> <td>Sludge</td> <td>from STP & Septic tank</td> <td>5.74</td> </tr> <tr> <td>Domestic Solid Waste</td> <td>Canteen</td> <td>38.25</td> </tr> <tr> <td>Plastic</td> <td>Packaging waste</td> <td>1.9</td> </tr> </tbody> </table>	Sl. No.	Solid waste	Existing	Proposed additional	Total	A Solid Waste					1	ESP, bagfilters and housekeeping (TPA)	7,88,214	7,69,048	15,57,262	B Hazardous Waste					1	Used oil & grease (kg/ annum)	7440 *	~ 5000	12440	Name of the waste	Source	Quantity (TPA)	Sludge	from STP & Septic tank	5.74	Domestic Solid Waste	Canteen	38.25	Plastic	Packaging waste	1.9
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		E-waste : Bulbs, tubes, electrical fitting, computers, laptops, phones, etc	Administration building	0.03
		Lead acid Batteries	Vehicles, UPS, machines & others	0.84
		Red category bio medical waste- Contaminated Waste (Recyclable such as Tubing, bottles, intravenous tubes, plastic syringes, etc)	First aid centre	0.033
		Yellow category bio medical waste- Soiled Waste: items contaminated with blood, body fluids like dressings	First aid centre	0.033
12.	The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that that the EMP cost do not commensurate with the project cost. The EMP measures and associated cost needs to be revisited.	The EMP costs have been updated and enhanced from Rs. 487.80 lakhs at the time of public hearing to Rs. 4368.1 lakhs after public hearing. The enhanced EMP capital cost is Rs. 4368.1 lakhs, which is 6.5% of the project cost. The capital cost is submitted.		
13.	The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the action plan does not justify the addressal of issues effectively. PP needs to revise the action plan in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.	The budget for addressing the points raised for public hearing as presented to the committee was Rs. 4.3 crores, which was 0.63% of the project cost. The budget is now revised to Rs. 10.5 crores, which is 1.53% of the project cost. The revised expenditure table linked to physical activities and villages in which the plan is to be implemented is submitted.		
14.	The EAC noted, PP has reported that existing greenbelt has been developed in 2.58 ha area which is about 5.3% of the total project area of 48.71 ha with total sapling of 38000 trees. Considering that the plant operations are running for more than seven decades, PP has not been able to develop 33% greenbelt. PP shall submit the justification in this regard along with details of the greenbelt and photographs. Also, PP shall re-verify figures submitted in brief pertaining to planted saplings which appears to be wrong figure.	The green belt for the entire plant and adjoining colony area has 33% green belt, however in just the plant area (for which the environmental clearance has been sought) it is only 5.3%. Now, as per requirement of EC, PP is planning to increase the green belt to 33% in plant area also. 38,000 saplings have been planted (and gap planted) since the inception of the plant and include the area in plant, in the colony and in other areas as well. Within the project, over 2.58 ha, approximately 6400 trees are there. The figure has been rectified in the EIA.		

Sl. No.	ADS Point raised by the EAC during 28 th February – 1 st March, 2023	Submission of PP
15.	PP shall also submit the measures undertaken for conservation of mangroves.	The Company had already provided support to Forest & Environment Department, Government of Gujarat in the year 2005-05 to undertake mangrove plantation. The company has proposed the following measures and budget for conservation of mangroves as a part of the Wildlife Conservation Plan during the next three years

Sl. No.	Activities	I st Year, Rs. Lakhs	II nd Year, Rs. Lakhs	III rd Year, Rs. Lakhs	Total expenses to be incurred, Rs. lakhs
A	Provision in Wildlife Conservation Plan submitted to PCCF, Gujarat				
1	Removal of invasive species like <i>Prosopis Juliflora</i> next to mangrove patches on the coastal stretch near company owned land	0.25	0.25	0.25	0.75
2	Additional mangrove plantation in 4 ha (@Rs. 50,000/ ha) & protection under the guidance of Marine National Park, Jamnagar	0.40	0.80	0.80	2.00
B	Provision in revised budget to address public hearing issues				
1	Mangrove plantation as part of the plantation drive - near colony (25 ha approx.)	2.5	5.0	5.0	12.5
2.	Mangrove plantation around Jetty (7.5 ha approx.)	1.25	1.25	1.25	3.75
	TOTAL	4.40	7.30	7.30	19.00

Note: Proposed locations are subject to approval by Forest & Environment Department, Government of Gujarat

The plantation will be carried out by the Forest & Environment Department, Government of Gujarat and the funds shall be deposited to them. The Forest & Environment Department has carried out successful plantation campaigns towards the side of the GSFC and Reliance jetties (about 1.2 km aerially from the plant site), which have resulted in creation of swamps over more than 250 ha, as visualized from the historical google earth maps of that area since 2005.

The Company intends to support the State Government for creation of similar mangrove swamps in the mudflats behind the colony area and around the existing jetty of the Company.

16.	The total water requirement of 240 m ³ /day after expansion is proposed to be obtained from ground water. PP shall explore the possibility to identify alternate source of water to fulfill its water requirement.	Ground water withdrawal permission is available from Central Ground Water Authority, Govt. of India vide NOC no. CGWA/NOC/IND/ORIG/2021/12448 dated 13/07/2021 valid till 12/07/2024 for a quantity of 250 KLD. The company is exploring the possibility of obtaining about 34 KLD of water from Sasoi and/ or Narmada River
17.	PP shall also submit the list of any show cause notices received from SPCB and their closure action, during last 3 years.	The following show cause notices had been received from Gujarat Pollution Control Board and closed in last three years: <ul style="list-style-type: none"> • Notice from GPCB vide letter no. GPCB/HAZ-GEN-628(4)/684250 dated 26.09.2022 and status of compliance submitted vide letter No. SDCCL/EHS/F-01 dated 29.09.2022

Sl. No.	ADS Point raised by the EAC during 28 th February – 1 st March, 2023	Submission of PP
		<ul style="list-style-type: none"> • Notice from GPCB vide letter no. SCN-673463 dated 27/05/2022 and status of compliance submitted vide letter dated 11.06.2022 • Notice from GPCB vide letter no. 17132 dated 25.08.2021 and status of compliance submitted vide letter no. SDCCL/EHS/F-01 dated 26.08.2021 • Notice from GPCB vide letter no. GPCB/CCA-JMN-CCA-145(13)/ID-17132 dated 12/06/2020 and status of compliance submitted vide letter No. SDCCL/GPCB/KK/17132/2020 dated 19/06/2020
18.	PP shall submit the details of jetty involved in the itegrated project and whethere required permissions have been obtained from the Competent Authority.	The jetty is not a part of this project proposal. It is a separate entity which has a CTO from GPCB vide consent no. AW-108463 dated 23.06.2020 valid upto 08.06.2025.
19.	Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be submitted.	The risk assessment and disaster management plan has been given in Chapter 7 of the EIA covering the above points. Fire NOC's have been issued by Gujarat State Fire Prevention Services upto 2021 and from 2022 onwards the layout is approved by Director, Industrial Safety & Health, Gujarat State, Ahmedabad. Copy submitted.
20.	The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.	It has been updated and uploaded.
21.	Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit of the sub-committee of the EAC to understand the ecological/ environmental sensitivity of the area/ complexity of the project/ size of the project and the various other issues involved in the project as mentioned above. In view of crucial project in terms of location and enormous number of issues are involved, the EAC is suggests to conduct the site visit through sub-committee so that all the issues are addressed accordingly for this project.	-

(B) Reply to the recommendations made by EAC (Industry-1) sub-committee during its site visit on 15-16th March 2023:

Sl.	Recommendation of the sub-committee	Response of the PP
1	Considering the fact regarding the existence of the two schools i.e., SDDCL Public School and SDDCL Pre Primary & Primary School at the distance of 20 meters and 45 meters, respectively, from the project boundary, but their distances are around 450 meters from the Stack. In this behalf, it is submitted that plant was established earlier than both schools. In view of the above, a dense vegetation/plantation must be developed around the schools.	It is committed that a three-tier greenbelt shall be established with a thickness of >6 m on the southern boundary of the SDDCL Public School to act as a buffer between the school and plant.
2	After due verification and detailed discussion, it is recommended that the PP shall provide a revised layout drawing, contour drawing with drainage disposal system with Designs and Calculations, and existing and proposed green belt with area calculations and evaluation of number of trees @2500 per Ha in the Plant and their proper placement.	<p>Three separate layout based on the observations during site visit have been prepared and submitted:</p> <ol style="list-style-type: none"> 1) Traffic channelizing inside plant, indexing, road details, plant machinery. 2) Contour map indicating Road details, drainage details. 3) Plant layout with green belt (existing and proposed), Road details, Plantation details <p>Existing Green belt is developed in 2.58 ha area of plant area and 6400 nos. of trees are planted in this area.</p> <p>Additionally, 33645 nos. of trees will be planted in 13.61 ha area of plant by coming Monsoon season (Jun-Oct'23). Thus, total 16.20 ha area of the plant layout will be covered under green belt with total 40,045 nos. of trees plantation which is equivalent to 33.26% of total project area.</p>
3	The PP shall prepare three different layout drawing with showing a smooth channelization of traffic inside the plant with proper indication of indexing in different colour codes in order to have these drawing self-explanatory	<p>Three separate layouts based on the observations during site visit have been prepared and submitted:</p> <ol style="list-style-type: none"> 1) traffic channelizing inside plant, indexing, road details, plant machinery. 2) Contour map indicating Road details, drainage details. 3) Plant layout with green belt (existing and proposed), Road details, Plantation details
4	In order to improve PM10 & PM2.5 the PP shall provide a green belt plan along the periphery wherever it is possible and on open areas in the plant premises. Further, in addition to the 33% green belt area, the PP shall develop a strip of green-belt outside the plant area.	<p>In order to improve PM10 & PM2.5 following is considered in addition to the green belt plan inside the plant boundary:</p> <ul style="list-style-type: none"> • Plantation outside the plant boundary wall for available space. • Regular Maintenance of existing road from plant gate to Sikka railway gate.

Sl.	Recommendation of the sub-committee	Response of the PP																		
		<ul style="list-style-type: none"> Three tier green belt development in the school premises along the boundary wall of school towards plant area. 																		
5	<p>During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.</p>	<ul style="list-style-type: none"> Agree to comply to specific AQMP with best practices with respect to expansion project. We are periodically carrying out Ambient air Quality Measurement within plant area and surrounding vicinity which includes area adjoining schools by third party as part of the AQMP/guidelines. Will conduct air monitoring in the vicinity adjoining schools and human habitations as per guidelines. The permanent AAQM station is already installed for monitoring of ambient air quality in near by vicinity. Additional 1 no. of AAQM station and online stack monitoring kits are envisaged as part of the expansion project and same is considered in EMP cost as part of project specific AQMP with best practices as per guidelines in Expansion of Cement Project. 																		
6	<p>The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, etc.</p>	<p>Modern and advanced pollution control equipment like Pulse Jet Bag filters and ESP are installed in existing plant and same is proposed as part of the expansion project.</p> <table border="1"> <thead> <tr> <th>Process Equipment</th> <th>Existing Plant</th> <th>Proposed Plant</th> </tr> </thead> <tbody> <tr> <td>Raw mill / Kiln</td> <td>Pulse Jet Bagfilter (1 no.)</td> <td>Pulse Jet Bagfilter (1 no.)</td> </tr> <tr> <td>Clinker Cooler</td> <td>Electrostatic Precipitator (1 no.)</td> <td>Electrostatic Precipitator (1 no.)</td> </tr> <tr> <td>Cement Mill</td> <td>Pulse Jet Bag filter (1 no.)</td> <td>Pulse Jet Bag filter (1 no.)</td> </tr> <tr> <td>Coal Mill</td> <td>Pulse Jet Bag filter (1 no.)</td> <td>Pulse Jet Bag filter (1 no.)</td> </tr> <tr> <td>Mechanical conveyor transfer towers</td> <td>Dust collector (40 nos)</td> <td>Dust collector (25 nos)</td> </tr> </tbody> </table>	Process Equipment	Existing Plant	Proposed Plant	Raw mill / Kiln	Pulse Jet Bagfilter (1 no.)	Pulse Jet Bagfilter (1 no.)	Clinker Cooler	Electrostatic Precipitator (1 no.)	Electrostatic Precipitator (1 no.)	Cement Mill	Pulse Jet Bag filter (1 no.)	Pulse Jet Bag filter (1 no.)	Coal Mill	Pulse Jet Bag filter (1 no.)	Pulse Jet Bag filter (1 no.)	Mechanical conveyor transfer towers	Dust collector (40 nos)	Dust collector (25 nos)
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7	<p>The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.</p>	<p>Personal sampling shall be carried out every six months at packaging plant, and the collected dust are being analyzed for silica content and compared with the permissible limits as per The Factories Act 1948. It is being carried out currently as well and the test results have been submitted which are within 0.942 to 1.583 mg/m³ against limit of 10 mg/m³ for total dust.</p>																		
8	<p>PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).</p>	<p>It is committed to develop a Three tier green belt in the school premises along the boundary wall of school towards plant area.</p>																		
9	<p>The PP shall comply with all the aforementioned recommendations and</p>	<p>Compliance of all the recommendations and deliberations as mentioned in the MoM of the 24th EAC</p>																		

Sl.	Recommendation of the sub-committee	Response of the PP
	deliberations as mentioned in the MoM of the 24th EAC (Ind-1) meeting.	(Industry – I) meeting as ADS have been submitted on 10.03.2023.
10	As per recommendations, the PP/ Consultant has to submit a revised EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.	PP has already submitted revised EIA/EMP as per provision of the EIA Notification'2006 on 10.03.2023 with some of the highlights as follows: <ul style="list-style-type: none"> • The EMP capital cost considered is Rs. 4368.1 lakhs, which is 6.5% of the total project cost. • The budget for CER, addressing the points raised for public hearing as presented to the committee was Rs. 4.3 crores, which was 0.63% of the project cost. The budget is now revised to Rs. 10.5 crores, which is 1.53% of the project cost. • PP shall adopt one village named "DIGVIJAYGRAM" for complete development under village adoption plan.

25.7.25 Based on the above submission of PP, the proposal was reconsidered during 25th meeting of the EAC for Industry-I sector held on 21-23rd March, 2023. The deliberations and recommendations of EAC are as follows:

Deliberations by the Committee

25.7.26 The Committee noted the following:

1. The instant proposal is for enhancement of production capacity of Cement from 1.20 to 3.00 MTPA and Clinker from 1.10 to 2.21 MTPA along with existing 8.5 MW WHRS.
2. As reported by PP, the company was established during 1944 and started commercial production of Cement / Clinker through wet process technology in the year of 1949. Dry Process Technology Cement / Clinker Plant's commercial production commenced on 1st September 1985. Thus, the Cement Plant was in operation prior to the EIA Notification of 1994 & 2006. The cost of project was less than Rs. 50 crores at the time of notification of the EIA Notification 1994. Hence, the project was exempted from requirement of environment clearance under EIA notification 1994. PP has submitted Certificate issued by the Chartered Accountant (with explanation) dated 01.03.2023. PP has further submitted affidavit dated 11.02.2023, stating that the production levels have never been exceeded and Company has not committed any violation under EIA Notification, 2006.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will

be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. Based on the site visit conducted by EAC (Industry-1) sub-committee during 15-16th March, 2023, the EAC noted the following:

Observation of Sub-committee:

1. *The sub-committee observed that the layout plan is not in accordance to the environmental considerations i.e., poor road networking, improper display of area statement and indexing, poor placement of Green Belt, inappropriate drainage disposal system, poor water conservation plan.*
2. *It was observed that the rain water harvesting system has been executed in a proper way in the residential area outside the plant premises.*
3. *It was also observed that the PP established a good housekeeping system within the plant premises.*
4. *There are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary &Primary School (arial 45 m from plant boundary). It was observed that although the said distances are from the project boundary, however, the distances of these schools are more than 450 m from the stag.*
5. *A well established and advanced laboratory has been developed within the plant premises along with a proper indicative measures such as calibration, Testing of Materials, process monitoring, etc.*
6. *It was observed that the value of PM10 and PM2.5 are higher, however, the PP ensure to develop a proposed green belt afresh as cited in recommendation below. Habitation around the Unit was observed, which were developed after the establishment of the proposed Unit.*
7. *The green belt was not developed up to the required standard. The PP admitted this fact and ensured for the development of required green belt as desired by the Sub-Committee.*
8. *It was observed that the ecological/environmental sensitivity of the Plant site/area need certain improvement as mentioned in the recommendation part.*

Recommendations of Sub-committee

1. *Considering the fact regarding the existence of the two schools i.e., SDDCL Public School and SDDCL Pre Primary &Primary School at the distance of 20 meters and 45 meters, respectively, from the project boundary, but their distances are around 450 meters from the Stack. In this behalf, it is submitted that plant was established earlier than both schools. In view of the above, a dense vegetation/plantation must be developed around the schools.*

2. *After due verification and detailed discussion, it is recommended that the PP shall provide a revised layout drawing, contour drawing with drainage disposal system with Designs and Calculations, and existing and proposed green belt with area calculations and evaluation of number of trees @2500 per Ha in the Plant and their proper placement.*
 3. *The PP shall prepare three different layout drawing with showing a smooth channelization of traffic inside the plant with proper indication of indexing in different colour codes in order to have these drawing self-explanatory.*
 4. *In order to improve PM10 & PM2.5 the PP shall provide a green belt plan along the periphery wherever it is possible and on open areas in the plant premises. Further, in addition to the 33% green belt area, the PP shall develop a strip of green-belt outside the plant area.*
 5. *During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.*
 6. *The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, etc.*
 7. *The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.*
 8. *PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).*
 9. *The PP shall comply with all the aforementioned recommendations and deliberations as mentioned in the MoM of the 24th EAC (Ind-1) meeting.*
 10. *As per recommendations, the PP/Consultant has to submit a revised EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.*
7. Total land required for the project is 48.71 ha which is under the possession of the company and is industrial land. Proposed expansion will be done within the existing plant premises. No additional land shall be required for proposed expansion of project.
 8. Sikka (10 m, East to North), Nimaz Colony (20 m, South west), Mungni village (750m, South) and GSECL (TPS) colony (400 m, South East) falls within 10 km radius study area of the project site. Also, there are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary & Primary School (arial 45 m from plant boundary). The sub-committee confirmed the distance of schools and also observed that their distances are around 450 meters from the Stack and plant was established earlier than both schools. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures to minimise the impact including dense vegetation/plantation around the schools.
 9. A seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area. Gulf of Kachchh is at a distance of 0.5 km in the NW direction. The EAC is of the opinion that

as submitted a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

10. As reported, Marine National Park is at a distance of 3.48 km and its ESZ at a distance of 4.36 km. Also Marine Sanctuary is at a distance of 1.48 km from the project site. The certificate from the Competent Authority along with the authenticated map showing the distance of Marine National Park and its ESZ from the project site boundary from Deputy Conservator of Forest, Marine National Park, Jamnagar, Gujarat vide letter dated 10/10-11/2022 is submitted.
11. The Project Proponent has undertaken to adopt one village named “DIGVIJAYGRAM” for complete development under village adoption plan.
12. Two Schedule-I species namely Peafowl and Monitor Lizard were found within 10 km radius of the study area of the plant site during biological study. Wild Life Conservation Plan has been approved by the Chief Wildlife Warden Gujarat State, Gandhinagar vide letter no. WLP/32/C/T-1&2/5233-36/2022-23 on 06.03.2023.
13. The existing water requirement of 240 m³/day after expansion is proposed to be obtained from ground water. The company is exploring the possibility of obtaining about 34 KLD of water from Sasoi and/ or Narmada River.
14. Existing greenbelt has been developed in 2.58 ha area which is about 5.3% of the total project area of 48.71 ha with total sapling of 6400 trees. Proposed greenbelt will be developed in 13.61 ha which is about 27.9% of the total project area. Thus, total of 16.19 ha area (33.26% of total project area) will be developed as greenbelt with total 40,045 nos. of trees plantation. Total no. of 33645 saplings will be planted and nurtured in 13.61 ha in next monsoon. The committee deliberated on the revised greenbelt development plan and is of the opinion that gap filling shall be undertaken and greenbelt development shall be completed by 2023-24.
15. The EAC noted that Company had provided support to Forest & Environment Department, Government of Gujarat in the year 2005-05 to undertake mangrove plantation. The company has proposed measures and budget of Rs. 19 lakhs for conservation of mangroves as a part of the Wildlife Conservation Plan during the next three years.
16. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
17. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory
18. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
19. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the revised EMP cost and found it satisfactory.
20. The EAC deliberated on response of PP to all the other issues raised in the earlier meeting along with the recommendations of sub-committee as per site visit report and found it satisfactory.
21. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and

accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

22. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

- 25.7.27 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific conditions:

- (i) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project
- (ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iv) Sikka (10 m, East to North), Nimaz Colony (20 m, South west), Mungni village (750m, South) and GSECL (TPS) colony (400 m, South East) falls within 10 km radius study area of the project site. Also, there are two schools present adjacent to the project site namely SDDCL Public School (arial 20 m from plant boundary) and SDDCL Pre Primary &Primary School (arial 45 m from plant boundary). Project Proponent shall implement appropriate environmental safeguard measures to minimise the impact including dense vegetation/plantation around the schools. The PP shall also include some of these locations in its environmental monitoring programme.
- (v) As committed, PP shall adopt village Digvijaygram and implement Village Adoption program consisting of need-based community development activities, to develop into model village.

- (vi) A seasonal nala enters through the SSE direction into the plant boundary and exits in south western direction and covers a short distance of 375 m in the south side of plant area. Gulf of Kachchh is at a distance of 0.5 km in the NW direction. The EAC is of the opinion that as submitted a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- (vii) The water requirement of 240 m³/day after expansion is proposed to be obtained from ground water. Necessary permissions shall be obtained from the Competent Authority in this regard. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.
- (viii) Three tier Green Belt shall be developed in atleast 33% of total project area by 2023-24 as per the submitted action plan with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Gap filling of existing plantation shall be undertaken and survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy alongwith windshield inside the plant premises to act as green barrier for air pollution & noise levels towards nearby habitation and schools. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (ix) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- (x) PP shall undertake conservation of mangroves as per the submitted action plan.
- (xi) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- (xii) The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
- (xiii) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- (xiv) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.
- (xv) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.
- (xvi) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
- (xvii) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- (xviii) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm³ by using best available technology.
- (xix) Petcoke dosing shall be controlled automatically to control SO₂ emission from chimney within the prescribed limits.

- (xx) PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.
- (xxi) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- (xxii) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
- (xxiii) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- (xxiv) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- (xxv) The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- (xxvi) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- (xxvii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement); as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport

- xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall regularly monitor ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i. Waste heat recovery system shall be provided for kiln and cooler.
- ii. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

- i. Used refractories shall be recycled as far as possible.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
- ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration of Amendment / Modification in Environment Clearance Proposal

Agenda No. 25.8

- 25.8 Expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA Capacity Submerged Arc Furnace (from 12,500 TPA to 66,000 TPA) and Chrome Ore Beneficiation Plant (from 36,000 TPA to 48,000 TPA) by M/s B. C. Mohanty & Sons Pvt. Ltd. Ferro Alloy Division, located at village Baliapal, Tehsil Danagadi, District Jajpur, Odisha – Consideration Amendment of Environmental Clearance (Amendment of Environmental Clearance Order No. J-11011/316/2012-IA II(I) dated 6th October, 2015 and Corrigendum on dated 16th March, 2016).**

[Proposal No. IA/OR/IND/296415/2023; File No. J-11011/316/2012-IA II(I)]

- 25.8.1 M/s B. C. Mohanty & Sons Pvt. Ltd. Ferro Alloy Division has made an online application vide proposal no. IA/OR/IND/296415/2023 dated 13.03.2023 along with Form-4 and addendum EIA Report and sought for amendment in Environment Clearance accorded by the Ministry vide letter no. J-11011/316/2012-IA-II (I) dated 6th October, 2015 and Corrigendum dated 16th March, 2016 w.r.t. changes in the conditions stipulated in the EC.

Details submitted by Project proponent

- 25.8.2 M/s B. C. Mohanty & Sons Pvt. Ltd. Ferro Alloy Division was granted Environment Clearance by the Ministry vide letter No. J-11011/316/2012-IA-II (I) dated 6th October, 2015 with Corrigendum dated 16th March, 2016 for Expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace (from 12500 TPA of 66,000 TPA) and Chrome Ore Beneficiation Plant from 36, 000 TPA to 48,000 TPA located at Village: Baliapal, Tehsil Danagadi, Dist. : Jajpur, Odisha.
- 25.8.3 The instant proposal is for seeking amendment in EC dated 06.10.2015 and Corrigendum dated 16.03.2016 w.r.t. following:

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
1	Specific Condition No. : ii “Existing briquetting plant should be expanded to handle the entire chrome concentrate and utilized in the present and proposed plant. The selling of the chrome concentrate should be done in form of briquettes.”	To be Amended as: “Existing briquetting plant of capacity 10 TPH is sufficient to handle the entire chrome concentrate produced from the beneficiation plant and utilized in the present and proposed plant. The Selling of the chrome concentrate in form of fines may be considered ”.	<u>Regarding expansion of existing briquetting plant to handle the entire chrome concentrate</u> Capacity of existing briquetting plant is 10 TPH. Proposed production of chrome concentrate from COB Plant is in the range of Minimum of 36000 TPA to Maximum 48000 TPA depending upon the CR ₂ O ₃ content in input ore. A total working day of our plant is 330 days / Year. With production of Maximum 48000 TPA of chrome concentrate, per day production of chrome concentrate will be 145.5 T. Existing briquetting plant of 10 TPH can handle up to 180 T/Day by operating 6 Hr/Shift in 3 Shifts in a Day. Thus, expansion of existing briquetting plant is not required to handle the entire chrome concentrate to be generated from new installation of COB Plant. Regarding selling of the chrome concentrate in form of briquettes. Our entire client’s requirement is chrome concentrate fines. They are not interested for chrome concentrate in the form of briquettes. Therefore, to comply the specification of Buyer the proponent has no other option than to sell chrome concentrate 100 % in the form of fines only.
2	Specific Condition No. iv “Rejects from the beneficiation plant should be sent back to the existing mine for disposal.”	To be Amended as: “Rejects from the Beneficiation Plant shall be stored in an impervious impounded area and shall be disposed to CPCB/SPCB	At the time of grant of EC Order No. J-11011/316/2012-IA II(I) dated 6 th October, 2015 and Corrigendum on dated 16 th March, 2016 we have proposed for disposal of COBP rejects back to our own Kamarda Chromite

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
		<p>authorized Vendors/Agencies or low laying land filling with prior approval from the CPC/SPCB. Necessary authorization shall be obtained from SPCB”.</p>	<p>Mines at village Kamarda, Sukinda Valley in Jajpur District.</p> <p>PP had obtained Consent to Establish for the said expansion proposal from OSPCB vide letter no. 1900/IND-II-NOC-6108 dated 19/02/2018 except Chrome Ore Beneficiation Plant (COBP).</p> <p>Subsequently PP have obtained CTE for establishment of our COB Plant for production of Chrome Concentrate in the range of 36,000 TPA to 48,000 TPA from OSPCB vide letter no. 226-KNG/IND-345 dated 04/12/2020.</p> <p>PP have lost the said Mining Lease in Auction during 2020. Thus since 31st March 2020 provision of disposal of COBP rejects back to existing mine for disposal has been ruled out.</p> <p>Now the rejects from beneficiation plant will be stored in an impervious pit, dried under the sunlight and will be disposed to authorized party or low laying land filling with prior approval of OSPCB.</p> <p>Proposed method of disposal of COB Plant Rejects/Tailings is uploaded for your kind perusal.</p>
3	<p>Under Subject of EC Order:</p> <p>“Expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace (from 12,500 TPA to 66,000 TPA) and Chrome ore Beneficiation Plant (From 36,000 TPA to 48,000 TPA), located at Village Baliapal, Tehsil Danagadi, District Jajpur,</p>	<p>To be Amended as:</p> <p>Expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace (from 12,500 TPA to 66,000 TPA) and installation of Chrome ore Beneficiation Plant (Minimum 36,000 TPA and Maximum 48,000 TPA), located at Village Baliapal, Tehsil Danagadi, District Jajpur, Odisha by M/s B. C. Mohanty & Sons Pvt. Ltd.</p>	<p>Existing unit prior to TOR application for expansion had only one number of SAF for production capacity of 12500 TPA of HCFeCr. In the initial application for TOR submitted on dtd.10.08.2012 at MOEFCC it was mentioned regarding installation of COB Plant of production of Chrome Concentrate of capacity 36000 TPA as a new installation along with 4 X 9 MVA SAF for production of various Ferro Alloys. During TOR presentation configuration of proposed SAF was 2 X 9 MVA & 3 X 5 MVA</p>

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
	Odisha by M/s B. C. Mohanty & Sons Pvt. Ltd.”		<p>and production capacity (Output) of proposed COB Plant was stated 36000 TPA Minimum and 48000 TPA Maximum.</p> <p>Subsequently EC Letter issued vide Order No. Order No. J-11011/316/2012-IA II(I) dated 6th October, 2015 and Corrigendum on dated 16th March, 2016 with mention of production capacity of COB Plant as from 36000 TPA to 48000 TPA. This is actually the range of production of new COBP not the expansion of any existing COBP production from 36000 TPA to 48000 TPA.</p> <p>Later on it has created misconceptions as of it is the expansion of existing COBP for production enhancement from 36000 TPA to 48000 TPA.</p> <p>Thus, the amendment required to clearly state that it is the range of production.</p>
4	<p>Clause No. 2.0 of EC Order</p> <p>The Ministry of Environment Forest and Climate Change has examined the application. It has been noted that the proposal is for enhancement of Ferro Alloys plant from 12,500 TPA to 66.000 TPA (High Carbon Ferro Chrome/Ferro-Manganese/Sillico-Manganese / Ferro Silicon/Pig Iron, or a combination thereof) by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace. The production from</p>	<p>To be Amended as:</p> <p>The Ministry of Environment Forest and Climate Change has examined the application. It has been noted that the proposal is for enhancement of Ferro Alloys plant from 12,500 TPA to 66.000 TPA (High Carbon Ferro Chrome/Ferro-Manganese/Sillico-Manganese / Ferro Silicon/Pig Iron, or a combination thereof) by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace. The production from New Chrome Ore Beneficiation Plant would be Minimum 36,000 TPA to</p>	<p><u>Regarding Range of Production Figure of COB Plant</u></p> <p>It is the range of Production Minimum of 36,000 TPA to Maximum 48,000 TPA not the expansion of Existing COB Plant from 36,000 TPA to 48,000 TPA. There was no COB Plant existing within the said Company premises for which EC granted.</p> <p><u>Regarding Change in Total Project Cost, Capital Cost on Environmental Pollution Control and Recurring Cost on Environmental Pollution Control.</u></p> <p>As per present market price the Total Project Cost, Capital Cost on Environmental Pollution Control and Recurring Cost on Environmental</p>

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
	<p>Chrome Ore Beneficiation Plant would also be enhanced from 36,000 TPA to 48,000 TPA of throughput. The existing project is in operation with consents from the State Pollution Control Board. The proposed expansion would be established within the existing plant premises of the Company, at village Baliapal, Tehsil Danagadi in Jajput District of Odisha. The project site is bounded by latitude 210 02' 13.58" N to 210 02' 28.56" N and longitude 85058' 33.81' E to 850 58' 45.87" E. In order to have product flexibility while keeping in view the demand supply scenario, the company would use the same facility fully or partially to manufacture Ferro Alloys, like High Carbon Ferro Chrome, ferro Manganese, Ferro Silicon & Silico Manganese and Pig Iron. The total land required for the existing and proposed expansion is 34.85 acres. The total land has been procured by the project proponent. The present land use is industrial. There is no national park/ wild life sanctuary/biosphere reserve/ tiger reserve/ elephant reserve in the</p>	<p>Maximum 48,000 TPA of throughput. The existing project is in operation with consents from the State Pollution Control Board. The proposed expansion would be established within the existing plant premises of the Company, at village Baliapal, Tehsil Danagadi in Jajput District of Odisha. The project site is bounded by latitude 210 02' 13.58" N to 210 02' 28.56" N and longitude 85058' 33.81' E to 850 58' 45.87" E. In order to have product flexibility while keeping in view the demand supply scenario, the company would use the same facility fully or partially to manufacture Ferro Alloys, like High Carbon Ferro Chrome, ferro Manganese, Ferro Silicon & Silico Manganese and Pig Iron. The total land required for the existing and proposed expansion is 34.85 acres. The total land has been procured by the project proponent. The present land use is industrial. There is no national park/ wild life sanctuary/biosphere reserve/ tiger reserve/ elephant reserve in the</p>	<p>Pollution Control are increased from Rs.70.00 Crores to Rs.77.00 Crores, Rs.150.00 Lakhs to Rs.770.00 Lakhs and Rs.15.00 Lakhs to Rs.77.00 Lakhs respectively.</p>

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
	<p>core (project area) and buffer zone (10 km radius of the project area). The Plant would operate for about 330 days in a year. The total number of employees to be recruited is about 500 (direct and indirect). The project cost of the proposed expansion is budgeted at Rs.70.00 Crores. The same will be funded by financial institutes with Promoters contribution. The Capital Cost on Environmental Pollution Control would be Rs.150.00 lakhs. Recurring Cost on Environmental Pollution Control is Rs.15.00 Lakhs/ Annum.</p>	<p>the proposed expansion is budgeted at Rs.77.00 Crores. The same will be funded by financial institutes with Promoters contribution. The Capital Cost on Environmental Pollution Control would be Rs.770.00 lakhs. Recurring Cost on Environmental Pollution Control is Rs.77.00 Lakhs/Annum.</p>	
5	<p>Clause No. 9.0 of EC Order</p> <p>The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry) and hereby decided to grant Environmental Clearance to the above mentioned proposal for expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Are Furnace from 12,500 TPA to 66000 TPA and one</p>	<p>To be Amended as:</p> <p>The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry) and hereby decided to grant Environmental Clearance to the above mentioned proposal for expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Are Furnace from 12,500 TPA to 66000 TPA and one new chrome ore beneficiation plant (Minimum 36,000 TPA to Maximum 48,000 TPA) under the provisions of EIA</p>	<p>It is the range of Production Minimum of 36,000 TPA to Maximum 48,000 TPA not the expansion of Existing COB Plant from 36,000 TPA to 48,000 TPA. There was no COB Plant existing within the said Company premises for which EC granted.</p>

Sl. No	Original Conditions Given in the EC granted vide letter No. - 11011/316/2012-IA II (I) dtd.6 th October 2015 and Corrigendum on dated 16 th March, 2016.	To be Amended as	Justification submitted by the PP for Amendments.
	chrome ore beneficiation plant (36,000 TPA to 48,000 TPA) under the provisions of EIA Notification dated 14 th September 2006, subject to strict compliance of the following Specific and General conditions	Notification dated 14 th September 2006, subject to strict compliance of the following Specific and General conditions	

25.8.4 There is no change in configuration & capacity of units in granted EC.

25.8.5 **Implementation status of the existing EC:**

It is reported that Implementation status of the existing EC and the compliance to the existing EC conditions has been verified by IRO, Bhubaneswar vide letter no. 101-949/EPE dated 14.12.2022

Sl. No	Facilities	Units	As per EC dated 06.10.2015	Implementation Status as on 31/12/2021	Consent (CTE/CTO)
1	Ferro Alloys Plant (SAF)	MVA	2 X 9 MVA	1 X 9 MVA	CTE obtained from OSPCB vide letter no. 1900/IND/II-NOC-6108 dated 19/02/2018. CTO obtained from OSPCB vide letter no. 1407/KNG/IND/749 dated 24/08/2020
			3 X 5 MVA	Not Installed	CTE obtained from OSPCB vide letter no. 1900/IND/II-NOC-6108 dated 19/02/2018. CTO not obtained.
2	Chrome Ore Beneficiation Plant	TPA	36,000 – 48,000	Construction completed	CTE obtained from OSPCB vide letter no. 2260/KNG/IND-345 dated 04/12/2020. CTO Application will be submitted by 30.04.2023.

25.8.6 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

25.8.7 The Committee noted the following:

- i. M/s B. C. Mohanty & Sons Pvt. Ltd. Ferro Alloy Division was granted Environment Clearance by the Ministry vide letter No. J-11011/316/2012-IA-II (I) dated 6th October, 2015 with Corrigendum dated 16th March, 2016 for Expansion of Baliapal Ferro Alloys Plant by addition of 2 X 9 MVA and 3 X 5 MVA capacity Submerged Arc Furnace (from 12500 TPA of 66,000 TPA) and Chrome Ore Beneficiation Plant from 36, 000 TPA to 48,000 TPA located at Village: Baliapal, Tehsil Danagadi, Dist. : Jajpur, Odisha.
- ii. The instant proposal is for seeking amendment in EC dated 06.10.2015 with Corrigendum dated 16.03.2016 w.r.t. changes in the conditions stipulated in the EC as detailed in para 25.8.3 above.
- iii. The EAC noted that there is no change in configuration & capacity of units in granted EC dated 06.10.2015 with Corrigendum dated 16.03.2016.
- iv. The EAC deliberated on the pointwise amendments / modification proposed in the instant proposal and is of the view that proposed amendments / modification are more of clarification in nature.
- v. The Project proponent was unable to provide the justification for the proposed amendments to the Committee very clearly and hence the EAC did not find the reasons substantial enough to grant amendment in the EC as proposed in the instant application.

Recommendations of the Committee

25.8.8 In view of the foregoing and after deliberations, the Committee is of the view that the justification provided by the PP needs be relooked and revised justification needs to be uploaded on Parivesh portal and accordingly the EAC **recommended the proposal to be returned in its present form** and advised project proponent to review its application and submit the revised application with substantial justification for further consideration.

DAY-3: MARCH 23, 2023 [THURSDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 25.9

25.9 Proposed expansion of Steel Plant-DRI Kilns (Sponge Iron from 90000 TPA to 486000 TPA), New Induction Furnaces with LRF & CCM (Billets/Hot Billets) of 297000 TPA, Rolling Mill (TMT Bars/Structural Steel) of 264000 TPA, Ferro Alloys Unit 2 x 9 MVA (FeMn-50,400 TPA/SiMn- 28800 TPA/FeCr-30000 TPA / FeSi-14000 TPA),WHRB based Power Plant-34 MW&FBC based Power Plant-30 MW, Fly Ash Brick making unit-50,000 bricks/day, Slag crushing unit- 100 TPD, Briquetting unit-200 Kg/hour by M/s Satya Power & Ispat Limited, located at Gatori & Sendri Villages, Bilha Tehsil, Bilaspur District, Chhattisgarh - Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND1/418285/2023; File No. J-11011/780/2008-IA.II(I)]

[Consultant : Pioneer Enviro Consultants Pvt. Ltd.; Valid upto: 06.06.2023]

25.9.1 M/s. Satya Power & Ispat Ltd. has made an online application vide proposal no. IA/CG/IND/237214/2021 dated 10.03.2023 along with copy of EIA/EMP report, Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

25.9.2 Name of the EIA consultant: M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2699; valid upto 06.06.2023, as on March 23, 2023].

Details submitted by Project proponent

25.9.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
03.11.2021	Standard TOR	Terms of Reference	06.11.2021	05.11.2025

25.9.4 The project of M/s. Satya Power & Ispat Ltd. located in Gatori, & Sendri villages, Bilha Tehsil, Bilaspur district, Chhattisgarh is for expansion of DRI Kilns (Sponge Iron from 90,000 TPA to 4,86,000 TPA), New Induction Furnace with matching LRF & CCM (Billets / Ingots / Hot Billets) 2,97,000 TPA, New Rolling Mill (TMT Bars / Structural Steel) 2,64,000 TPA, New Ferro Alloys Unit 2 x 9 MVA (FeMn- 50,400 TPA / SiMn- 28,800 TPA / FeCr – 30,000 TPA / FeSi – 14,000 TPA), New WHRB based Power Plant - 34 MW & New FBC based Power Plant - 30 MW, New Brick manufacturing unit - 50,000 bricks/day, New Slag crushing unit - 100 TPD, New Briquetting unit - 200 Kg/hour.

25.9.5 Environmental Site Settings:

S.No.	Particulars	Details	Remarks																																																
1.	Total land	38.98 Ha. (96.28 acres) [Existing plant is located in 24.29 Ha. (60.0 Acres) of land and now additional land of 14.69 Ha. (36.28 acres) is envisaged for proposed expansion project.]	Land use: Industrial																																																
2.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.	27.19 Ha. (67.17 acres) of land is under possession and remaining 11.79 Ha. (29.11 acres) of land is Govt. land which is under allotment process.	--																																																
3.	Existence of habitation & involvement of R&R, if any.	<p>Project site: No habitation exists in the plant site</p> <p>Study Area</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Kachhar</td> <td>0.6 kms.</td> <td>W</td> </tr> <tr> <td>Sendri</td> <td>0.6 kms.</td> <td>S</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Kachhar	0.6 kms.	W	Sendri	0.6 kms.	S	--																																							
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S.No.	Particulars	Details			Remarks												
		16.	Point # 16	22° 11' 14.24" N, 82° 07' 09.37" E													
		17.	Point # 17	22° 11' 18.73" N, 82° 07' 11.52" E													
5.	Elevation of the project site	285 m to 289 m			--												
6.	Involvement of Forest Land, if any	Nil			--												
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>Project Site: Nil.</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Arpa River</td> <td>1.6 Kms.</td> <td>West</td> </tr> <tr> <td>Kurung Right Bank Canal</td> <td>3.5 Kms</td> <td>East</td> </tr> <tr> <td>Kurung Nallah</td> <td>8.0 Kms.</td> <td>East</td> </tr> </tbody> </table>			Habitation	Distance	Direction	Arpa River	1.6 Kms.	West	Kurung Right Bank Canal	3.5 Kms	East	Kurung Nallah	8.0 Kms.	East	--
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Kurung Nallah	8.0 Kms.	East															
8.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	<p>Nil.</p> <p>PF within study area: Ratanpur Protected Forest is situated at distance of 9.5 Kms. from the plant site.</p>			--												

25.9.6 The existing project was accorded environmental clearance vide J-11011/780/2008-IA II (I) dated 30/12/2010 and accordingly CTE has been obtained from Chhattisgarh Environment Conservation Board vide order no. 3294/TS/CECB/2015 dated 14/10/2015. CTO issued by Chhattisgarh Environment Conservation Board for DRI Kiln (Sponge Iron – 60,000 TPA) and 14,40,000 TPA of Coal washery unit vide order no. 10329/TS/CECB/2021 dated 24/02/2021 which is valid up to 31/08/2025 and for 100 TPD DRI kiln vide order No. 8855/TS/CECB/2022 dated 04-03-2022 is up to 28/02/2025.

25.9.7 Implementation status of the existing EC:

S.No.	Facilities	Product	As per E.C. dated 30/12/2010	Implementation Status as on 6 th November, 2021	Current status of operation as per CTO
1	DRI Plant	Sponge Iron	60,000 TPA to 3,00,000 TPA	90,000 TPA	90000 TPA

S.No.	Facilities	Product	As per E.C. dated 30/12/2010	Implementation Status as on 6 th November, 2021	Current status of operation as per CTO
2	Induction Furnace with CCM	Billets / Ingots / Hot Metal	2,16,000 TPA	Un-implemented	--
3	Rolling Mill	TMT bars / Structural Steel	90,000 TPA	Un-implemented	--
4	Ferro Alloys	FeMn / SiMn / FeCr / FeSi	30,000 TPA	Un-implemented	--
5	WHRB Power Plant	Electricity	20 MW	Un-implemented	--
6	AFBC Power Plant	Electricity	24 MW	Un-implemented	--
7	Coal Washery	Washed Coal	14,40,000 TPA	14,40,000 TPA	14,40,000 TPA

25.9.8 The unit configuration and capacity of existing and proposed project is given as below:

S. No.	Units (Products)	Existing capacity	Proposed Expansion capacity	After Proposed Expansion capacity
1.	DRI Kilns (Sponge Iron)	3 x 100 TPD (90,000 TPA)	2 x 100 TPD & 2 x 500 TPD (3,96,000 TPA)	5 x 100 TPD & 2 x 500 TPD (4,86,000 TPA)
2.	Induction Furnace (Billets / Ingots / Hot Metal)	---	6 x 15 T (2,97,000 TPA)	6 x 15 T (2,97,000 TPA)
3.	Rolling Mill (TMT bars / Structural Steel)	---	2 x 400 TPD (2,64,000 TPA)	2 x 400 TPD (2,64,000 TPA)
4.	Ferro Alloys (FeMn / SiMn / FeCr / FeSi)	---	2 x 9 MVA (FeMn 50,400 TPA / SiMn 28,800 TPA / FeCr – 30,000 TPA / FeSi – 14,000 TPA)	2 x 9 MVA (FeMn 50,400 TPA / SiMn 28,800 TPA / FeCr – 30,000 TPA / FeSi – 14,000 TPA)
5.	WHRB Power Plant (Electricity)	---	34 MW (2 x 5 MW & 2 x 12 MW)	34 MW (2 x 5 MW & 2 x 12 MW)
6.	AFBC Power Plant (Electricity)	---	30 MW (1 x 10 MW & 1 x 20 MW)	30 MW (1 x 10 MW & 1 x 20 MW)
7.	Brick manufacturing unit	--	50,000 bricks/day	50,000 bricks/day
8.	Slag crushing unit	--	100 TPD	100 TPD
9.	Briquetting unit	--	200 Kg/hour	200 Kg/hour
10.	Coal Washery	200 TPH	---	200 TPH

S. No.	Units (Products)	Existing capacity	Proposed Expansion capacity	After Proposed Expansion capacity
	(Washed Coal)	(14,40,000 TPA)		(14,40,000 TPA)

25.9.9 The details of the raw material requirement for the proposed expansion project along with its source and mode of transportation is given as below:

S.No.	Raw Material		Quantity (TPA)	Sources	Distance from Site (Kms)	Mode of Transport
1.	For DRI Kilns (Sponge Iron) – 3,96,000 TPA					
a)	Pellets (100 %)		5,54,400	Orissa & Chhattisgarh	~ 500 & 100	By rail & road (through covered trucks)
	or					
b)	Iron ore (100%)		6,33,600	NMDC Mines	~ 600	By rail & road (through covered trucks)
c)	Coal	Indian	5,14,800	SECL Chhattisgarh / MCL Odisha	~ 600	By rail & road (through covered trucks)
		Imported	3,29,472	Indonesia / South Africa / Australia	~ 600	Through sea route, rail route & by road
d)	Dolomite		19,800	Chhattisgarh	~ 100	By road (through covered trucks)
2.	For Steel Melting Shop (MS Billets/ Ingots) – 2,97,000 TPA					
a)	Sponge Iron		3,00,000	Own generation	--	----
b)	MS Scrap / Pig Iron		45,000	Chhattisgarh	~ 100	By road (through covered trucks)
c)	Ferro alloys		15,000	Own generation	--	---
3.	For Rolling Mill through Hot charging (TMT bars / Structural Steel) –2,64,000 TPA					
a)	Hot Billets / MS Billets / Ingots		2,82,500	Own generation Purchased from outside	--	---- By road (through covered trucks)
b)	LDO		14,446 TPA	Chhattisgarh	~ 100	By road (through Tankers)
4.	For AFBC Boiler [Power Generation 1 x 10 MW & 1 x 20 MW]					
a)	Indian Coal (100 %)		2,00,475	SECL Chhattisgarh / MCL Odisha	~ 100 and ~ 600	By rail & road (through covered trucks)

S.No.	Raw Material		Quantity (TPA)	Sources	Distance from Site (Kms)	Mode of Transport
	OR					
b)	Imported Coal (100 %)		1,30,000	Indonesia / South Africa / Australia	~ 600	Through sea route, rail route & by road
	OR					
c)	Dolochar	Dolochar	1,18,800	Own generation	-	through covered conveyors
	+ Indian Coal	Indian Coal	1,41,075	SECL Chhattisgarh / MCL Odisha	~ 100 and ~ 600	By rail & road (through covered trucks)
	OR					
d)	Dolochar	Dolochar	1,18,800	Own generation	-	through covered conveyors
	+ Imported Coal	Imported coal	90,288	Indonesia / South Africa / Australia	~ 600	Through sea route, rail route & by road
5.	For Ferro Alloys (2 x 9 MVA)					
5 (i)	<i>For Ferro Silicon – 14,000 TPA</i>					
a)	Quartz		24,300	Chhattisgarh / Andhra Pradesh	~ 100 and ~ 600	By road (through covered trucks)
b)	LAM coke		18,900	Andhra Pradesh	~ 600	By road (through covered trucks)
c)	MS Scrap / Mill scales		4,230	Own generation	--	--
d)	Electrode paste		360	Maharashtra / West Bengal	~ 100 and ~ 600	By road (through covered trucks)
e)	Bagfiler dust		200	Own generation	--	--
5 (ii)	<i>For Ferro Manganese – 50,400 TPA</i>					
a)	Manganese Ore		68,400	MOIL / OMC	~ 500	By Rail & Road (through covered trucks)
b)	LAM coke		19,800	Andhra Pradesh	~ 500	By road (through covered trucks)
c)	Dolomite		8,100	Chhattisgarh / Andhra Pradesh	~ 100 and ~ 600	By road (through covered trucks)
d)	MS Scrap / Mill scales		7,200	Inhouse Generation	--	--

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from Site (Kms)	Mode of Transport
e)	Electrode Paste	630	Maharashtra / West Bengal	~ 100 and ~ 600	By road (through covered trucks)
f)	Bagfilter dust	1,000	Own generation	--	--
5 (iii)	<i>For Silico Manganese – 28,800 TPA</i>				
a)	Manganese Ore	48,600	MOIL / OMC	~ 500	By Rail & Road (through covered trucks)
b)	LAM Coke	16,200	Andhra Pradesh	~ 500	By road (through covered trucks)
c)	FeMn. Slag	30,294	In house generation	--	----
d)	Dolomite	7,380	Chhattisgarh / Andhra Pradesh	~ 100 and ~ 600	By road (through covered trucks)
e)	Electrode paste	630	Maharashtra / West Bengal	~ 600	By road (through covered trucks)
f)	Quartz	7,740	Chhattisgarh / Andhra Pradesh	~ 100 and ~ 600	By road (through covered trucks)
g)	Bagfilter dust	200	Own generation	--	--
5 (iv)	<i>For Ferro Chrome – 30,000TPA</i>				
a)	Chrome Ore	56,700	Sukinda, Odisha Import, South Africa	~ 500	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	19,800	Andhra Pradesh	~ 500	By road (through covered trucks)
c)	Quartz	8,100	Chhattisgarh / Andhra Pradesh	~ 100 and ~ 600	By road (through covered trucks)
d)	MS Scrap / Mill Scale	2,700	Inhouse Generation	--	--
e)	Magnetite / Bauxite	5,400	Chhattisgarh / Maharashtra	~ 100 and ~ 600	By road (through covered trucks)

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from Site (Kms)	Mode of Transport
f)	Electrode Paste	540	Maharashtra / West Bengal	~ 600	By road (through covered trucks)
g)	Bagfilter dust	1200	Own generation	--	---

25.9.10 Existing Water requirement is 400 m³/day, water requirement is obtained from and permission for the same has been obtained from CGWA, Govt. of Chhattisgarh vide letter no. CGWA/NOC/IND/ORIG/2021/11148 dated 23-01-2021 (Permission for 93 m³/day). The water requirement for the proposed expansion project is estimated as 2240 m³/day, Total water requirement after expansion 2640 m³/day, which will be obtained from the Arpa river. The permission for supply of surface water for existing plant and for proposed expansion project is under process & SIPB has given recommendation letter vide no.148/SIPB/2022/1108 dated 28-11-2022 to Water resources Department, Chhattisgarh.

25.9.11 Power required for the Existing Plant & CTO permitted units is 5.31 MW and is being sourced State Grid. Power required for the proposed expansion project will be 55.9 MW and will be sourced Captive Power Plant. Total Power Requirement after proposed expansion will be 61.21 MW and same will be sourced from 64 MW Captive Power Plant.

25.9.12 Baseline Environmental Studies:

Period	1 st March, 2021 to 31 st May, 2021
AAQ parameters at 8 locations	<ul style="list-style-type: none"> PM_{2.5} = 21.1 to 40.1 µg/m³ PM₁₀ = 34.5 to 67.4 µg/m³ SO₂ = 11.2 to 15.7 µg/m³ NO₂ = 12.1 to 19.8 µg/m³ CO = 405 to 750 µg/m³
AAQ modelling	<ul style="list-style-type: none"> PM₁₀ = 0.6 µg/m³ (1500 m in E), Vehicular PM₁₀ = 0.1 µg/m³ SO₂ = 5.5 µg/m³ (1500 m in E) NO₂ = 3.3 µg/m³ (1500 m in E), Vehicular NO₂ = 1.1 µg/m³ CO = 0.7 µg/m³ Vehicular
Ground water quality at 8 locations	<ul style="list-style-type: none"> pH : 7.2 to 7.6 TSS : 0.5 to 0.8 mg/l TDS : 376 to 468 mg/l Total hardness : 229 to 265 mg/l Chlorides 178 to 234 mg/l Fluoride : 0.4 to 0.6 mg/l Heavy metals (Iron -Fe): 0.1 to 0.2 mg/l
Surface water quality at 3 locations	pH : 7.4 to 7.6, DO (in mg/l) : 5.4 to 6.6, BOD (in mg/l) : 2.3 to 2.8, COD (in mg/l) : 8.9 to 9.5, TDS (in mg/l) : 274 to 316, Chlorides (in mg/l) : 142 to 164, Sulphates (in mg/l) : 88 to 105
Noise levels	The equivalent day-night noise levels in the study zone are ranging from 47.69 dBA to 60.39 dBA

Traffic assessment study findings

Project site is well connected to Raipur to Bilaspur (NH # 30) which is capable of absorbing additional truck movement due to transportation
Transportation of raw material, fuel & finished product will be done 100 % by road.

PCU calculation for peak hour traffic (existing baseline scenario)

Type of vehicle	Total No. of vehicles (Bilaspur to Takhatpur)	Total No. of vehicles (Takhatpur to Bilaspur)	Total PCU/hr
Cycle, Motor Cycle or Scooter	49	51	50
Passenger car, Tempo, Auto rickshaw	39	51	90
Truck, Bus, or Agricultural Tractor Trailer unit	98	106	612
TOTAL	186	208	752

PCU calculation for peak hour traffic (due to the project)

Type of vehicle	Total No. of vehicles (Bilaspur to Takhatpur)	Total No. of vehicles (Takhatpur to Bilaspur)	Total PCU/hr
Cycle, Motor Cycle or Scooter	10	10	10
Passenger car, Tempo, Auto rickshaw	5	5	10
Truck, Bus, or Agricultural Tractor Trailer unit	20	20	120
TOTAL	35	35	140

Level of service at study road during peak hour (after operation of the proposed project)

Raipur to Bilaspur (NH # 30)	Existing Baseline Scenario (V) (PCU/hr)	Due to the Project (V) (PCU/hr)	Total (PCU/hr)	Capacity of Road (C) (PCU/hr)	V/C ratio	LOS
PCU/Hour	752	140	892	1500	0.6	C

Level of Service (LOS) of the Road as per IRC 106-1990

V/C	LOS	Performance
0.0 – 0.2	A	Excellent
0.2 – 0.4	B	Very Good
0.4 – 0.6	C	Good
0.6 – 0.8	D	Fair/ Average
0.8 – 1.0	E	Poor
1.0 & Above	F	Very Poor

The Level of Service (LOS) of the Road = $892 / 1500 = 0.6$

	<i>As per the above the LOS of the ROAD is categorized under ‘C’, which implies “GOOD”. Hence the existing road is capable of taking the additional vehicular traffic due to the proposed project.</i>
Flora and fauna	No schedule I fauna and endangered Flora found within the study area of the project.

25.9.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	Total	
1.	Dolochar	27,000	1,18,800	1,45,800	Is being given to nearby Cement plant and Brick manufacturing unit. After proposed expansion, it will be utilized in the proposed Brick manufacturing unit
2.	Ash from DRI	16,200	71,280	87,480	Is being given to nearby FBC based Power plant. Now it is proposed to be utilised in the proposed FBC power plant as a fuel.
3.	Kiln Accretion Slag	810	3,564	4,374	Is being given to Road Contractor for road construction & given to brick manufacturer. After proposed expansion, it will be utilized in the proposed Brick manufacturing unit
4.	Wet Scraper Sludge	4,140	18,216	22,356	Is being given to Road Contractor for road construction & given to brick manufacturer. After proposed expansion, it will be utilized in the proposed Brick manufacturing unit
5.	SMS Slag	---	29,700		Slag from SMS will be crushed and iron will be recovered & remaining non - magnetic material being inert by nature will be used as sub base material in road construction/ used for brick manufacturing.
6.	Mill scales from Rolling Mill	---	5,280		will be utilized in the proposed Ferro Alloys units.
7.	End cutting from Rolling Mill	---	7,920		Will be recycled back as Raw material in Induction Furnace
8.	Slag from SiMn	--	30,888		Will be given to Road Contractor for road construction / slag cement manufacturing unit
9.	Slag from FeMn	--	30,294		Will be used in manufacture of Silico manganese as it contains high MnO ₂
10.	Slag from FeSi	--	1,010		Will be given to cast iron foundries
11.	Slag from FeCr	--	27,918		Will be further processed in Zigging plant for Chrome recovery and the non-

S. No	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	Total	
					chrome contents will be sent for land filling.
12.	Washery rejects	3,60,000	---		Is being given to rejects based power plant
13.	Ash from Power Plant (with 100 % Indian Coal)	--	90,214		will be utilized in the proposed Brick manufacturing unit
	OR				
	Ash from Power Plant (with 100 % Imported Coal)	--	15,600		will be utilized in the proposed Brick manufacturing unit
	OR				
	Ash from Power Plant (with Dolochar + Indian Coal)	--	1,34,764		will be utilized in the proposed Brick manufacturing unit
	OR				
	Ash from Power Plant (with Dolochar + Imported Coal)	--	82,115		will be utilized in the proposed Brick manufacturing unit

Hazardous waste generation, storage & disposal:

1.Waste oil: 5.0 KL / Annum

This will be stored in covered HDPE drums in a designated area and will be given to SPCB approved vendors.

2.Used Batteries

Used batteries will be given back to the supplier under buy back agreement with supplier.

25.9.14 Public Consultation:

Date of advertisement	06.06.2022
Name of newspapers	Local newspaper (Hindi) "DAINIK BHASKAR" National newspaper (English) "BUSINESS STANDARD, NEW DELHI"
Date on which Public Hearing conducted	07.07.2022 at 12.00 PM
Venue	Public Hearing was conducted at Primary & Secondary School Ground, Gatouri Village, Bilaspur Tehsil & District, Chhattisgarh.
Chaired by	Additional District Magistrate
Issues are	<ul style="list-style-type: none"> • Traffic Problem • Increase in Pollution

	<ul style="list-style-type: none"> • Noise pollution will increase • Road accidents have been taken place • Crop damage & compensation given • Smoke & Dust pollution • Groundwater level will decrease • Dust & Solid waste generation • Social welfare fund will be allocated • Employment to locals • Wastewater discharge • Control of Air pollutants • Ash disposal • Arrangement of Drinking Water • Adoption of nearby villages • Plantation in Villages with Tree guards
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Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

M/s. Satya Power & Ispat Ltd. is also proposing to adopt the following 5 nos. of Villages namely Gatauri village, Sendri village, Kachhar village, Amtara village, and Navgawa Village as a part of Social welfare development and has earmarked Rs. 5.25 Crores for Social & Infrastructure developmental activities based on Social Impact Assessment (SIA) after completion of Public Hearing

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on SIA Study						
1	Community & Infrastructure Development Programmes					
	i) Providing LED Street lighting with solar panels	Physical Nos. & village	10 nos. in Gatauri (v) & 10 no.s in Sendri (v)	10 nos. in Kachhar (v) & 10 nos. in Navgawa (v)	10 nos. in Amtara (v)	7.5
		Budget in Lakhs	3	3	1.5	
					Total	7.5
2	Education					
	i) Providing Sport kits for schools	Physical Nos. & village	5 nos. in Sendri (v) & 5 Nos. in Gatauri (v)	3 nos. in Navgawa (v) & 3 nos. in Amtara (v) & 04 Nos- Kachhar	-	2
		Budget in Lakhs	1	1	-	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
	iii)Providing support to Model Anganwadi Centre in consultation with State Women and Child Development Department	Physical Nos. & village	Sendri (v) -1 no.	-	-	10.5
		Budget Rs. in Lakhs	10.5	-	-	
					Total	12.5
					TOTAL (A)	20
B). Based on Public Consultation/Hearing						
1	Impart training to the local villagers for skill development. a)DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	DISHA centre in Sendri village			150
		Budget in Lakhs	50	50	50	
2	Providing basic drainage facilities and roads in the panchayat	Physical Nos. & village	Kachhar (v) & Sendri (v)	Gatori (v) & Navgawa (v)	Amtara (v)	90
		Budget in Lakhs	36	36	18	

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)		
3	Repair of existing road from Kachhar to Gatori Village (stretch of 3.4 Kms)	Physical Nos. & village	Kachhar to Gatori Village	---	---	50
		Budget in Lakhs	50	---	---	
4	Providing drinking water facility in Gatori, Sendri, Lofandi, Amtara, & Kachhar villages	Physical Nos. & village	Gatori (v), Sendri (v)	kachhar (v), Navgawa (v)	Amtara (v)	15
		Budget in Lakhs	6	6	3	
5	Speed Breakers will be provided in front of main gate & Gatori, Sendri, Lofandi villages	Physical Nos. & village	Gatori (v), Sendri (v), Kachhar (v)			10
		Budget in Lakhs	10			
6	Construction of Primary Health center with Ambulance in sendri village to take care of health requirements of the surrounding villages.	Physical Nos. & village	Sendri(v)	---	---	60
		Budget in Lakhs	60	---	---	
7	Construction of class rooms in schools of size 8m x 5m x3 m	Physical Nos.&village	1 room in Kachhar (v), 1 room in Gatauri (v)	1 room in Sendri (v)	1 room in Amtara (v)	80
		Budget in Lakhs	40	20	20	
12	Plantation in nearby villages & along the Roads	Physical Nos. & village	2000 nos. in each Sendri (v) & Gatori (v)	2000 nos. in each Kachhar (v) & Amtara (v)	2000 nos. in Navgawa (v)	50
		Budget in Lakhs	20	20	10	
					Total B	505
		TOTAL	286.5	136.0	102.5	
			Grand Total(A+B)			525
Recurring expenditures under CSR as per companies Act 2014						
<ul style="list-style-type: none"> Health checkup will be carried out periodically in surrounding villages i.e. , Gatori, Sendri, Lofandi, Kachhar, Amtara & Navgawa villages @ Rs 10.0 Lakhs every year. 						

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		<ul style="list-style-type: none"> Rs. 10 Lakhs for regular maintenance of Road 			

25.9.15 The capital cost of the expansion project is Rs.525 Crores and the capital cost for environmental protection measures is proposed as Rs. 56.95 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.11.90 Crores. The employment generation from the proposed expansion project is 1300 direct & 500 Indirect. The details of cost for environmental protection measures is as follows:

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
1	Air Emission Management		
	· Electro Static Precipitators (ESP) - DRI	8.00	1.20
	· Electro Static Precipitators (ESP) - DRI	10.00	1.20
	· Electro Static Precipitators (ESP) - FBC	3.00	0.40
	· Electro Static Precipitators (ESP) - FBC	6.00	0.80
	· Fume Extraction system with bag filters	8.00	1.60
	· other APCS & Conveyor systems	3.00	0.45
	· Stacks	4.00	0.23
	· Mechanical Dust sweepers	0.50	0.03
	· Water Sprinklers	0.10	0.01
2	Wastewater Management		
	· for New ETP	1.50	0.80
	· for STP	0.60	0.30
	· for Garland drains	0.30	0.03
	· for Settling ponds	0.03	0.00
3	Solid waste Management		
	· Fly Ash Handling & disposal	1.80	1.00
	· Slag Handling & Disposal	0.50	0.10
	· Hazardous waste storage & disposal	0.10	0.05
	· Municipal solid waste storage & disposal	0.05	0.02
4	Increase of Boundary wall Height	2.20	
5	Greenbelt development, Land scaping,	1.70	2.00
6	Noise Management	0.20	0.10
7	RWH in Plant	0.02	0.00
8	Fire Safety Systems	2.50	0.25
	Environmental Monitoring		
	· CEMS	0.35	0.04
	· CAAQMS	1.60	0.40
	· Environment Monitoring	0.00	0.20
9	· Performance monitoring of APCS	0.00	0.01
10	Occupational Health & Safety		

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
	Occupational Health centre	0.30	0.08
	Personal Protective Equipment's (PPEs)	0.60	0.60
	TOTAL	56.95	11.90
11	Social & Infrastructure developmental activities	5.25	0.00
	GRAND TOTAL	62.2	11.90

25.9.16 Existing green belt has been developed in 8.1 Ha. area which is about 33 % of the Existing plant area of 24.29 Ha. with total sapling of 17,000 Trees. Proposed greenbelt will be developed in 10.21 Ha. Thus total of 18.21 Ha. area (46.7 % of total project area i.e. 38.98 Ha.) will be developed as greenbelt. A 10 m to 140 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 34000 saplings will be planted and nurtured in 18.21 hectares in 2 years.

25.9.17 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified compliance report from CPCB

25.9.18 The Status of compliance of earlier EC was obtained from Regional Office, Raipur vide letter no. 5-4/2011 (ENV)/757 Dated 07-06-2022 in the name of M/s. Satya Power & Ispat Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Raipur vide letter no. SPIL/IRO/2022-2023 dated 10-11-2022 & 190/SPIL/IRO/2022-2023 dated 29-12-2022 MoEF&CC (RO), Raipur evaluated the same and has issued letter dated 9.01.2023, File No.5-4/2011(ENV)/-1186. The details of the observations made by RO in the report dated 24-02-2023 along with its re-assessment / present status as furnished by the PP is given as below.

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1	Project authorities are directed to submit the six monthly compliance reports regularly to this as per EIA notification, 2006(Specific condition-I, General Condition-XIV,XV)	As per records available with this office it has been observed that six monthly compliance report for the period 1 st December, 2022 i.e. (01.04.202 to 31.09.2022) has not been submitted.	30-12-2010	I	XIV, XV	PP has submitted six monthly compliance report for the period from 01-04-2022 to 30-09-2022 to this office on 01-02-2023

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
2	Project authorities are directed to constructed high concentrated clarifier/thickener, install flow meter and PTZ camera and submit effluent monitoring reports to this office. (Specific Condition – IX & XVII)	On the day of monitoring. It has been observed that coal washery was not found operational. PP has been submitted copy of intimation letter of shutdown of Coal Washery from FY 2020-21,2021-22 & 2022-23 submitted at head office Regional Office CECB Bilashpur to this office.	30-12-2010	IX & XVII		It was informed by PP that they are not operating the coal washery for the last 3 financial years i-e 2020-21 ,2021-22,2022-23. It was informed by PP that they will provide high concentrated thickener ,installation of PTZ ,Camera ,installation of flow meter before commencement of operation of coal washery and also submit effluent monitoring reports.An Affidavit regarding the same has been submitted to this office.
3	Project authorities are directed to submit fly ash utilization reports for the last 2 financial years to this office. (Specific Condition-XII)	PP agreed with our observation reported on 07.06.2022 and PP didn't submit the fly ash utilization report to this office.	30-12-2010	XII		PP has submitted the details of fly ash generation and disposal in last 2 financial years (month wise) to this office.
4	Project authorities are directed to submit plantation details with latest layout plan specifying 33% greenbelt to this office (Specific Condition-XVI,XXI)	It was informed by PP tha they are selling dolochar to other power plants. PP has submit the report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste to this office.	30-12-2010	XVI, XXI		PP has submitted the revised plant layout showing the additional greenbelt to this office.
5	Project authorities are directed to submit the report	It was informed by PP that they are selling	30-12-2010	XVIII		It was informed by PP that they are selling dolochar to power plant

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	regarding toxic metal content in the waste material and its composition, end use of solid /hazardous waste to this office.(Specific Condition-XVIII)	dolochar to other power plants. PP has submitted the selling of dolochar invoices to this office. PP didn't submit the report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste to this office.				to be used as fuel for power generation. It was also informed by PP that once they completed where in they have proposed FBC based power plant the entire dolochar will be consumed within the premises captively. PP has submitted the solid waste toxic metal content analysis reports to this office.
6	Project authorities are directed to submit time bound action plan as per the stipulated condition to this office .(Specific Condition-XIX)	PP didn't submit the time bound action plan to reduce solid waste, its proper utilization and disposal to this office.	30-12-2010	XIX		PP has submitted the details of fly ash generation and disposal in last 2 financial years (month wise) to this office. It was informed by PP that they are selling dolochar to power plants to be used as fuel for power generation. It was also informed by PP that they will establish a brick manufacturing plant within the plant premises by march 2023 with a capacity of 50,000 bricks per day and assured that entire fly ash stored in plant site will be utilized for brick making within the premises with effect from April 2023. PP has submitted a brief note on time bound action plan for reduction

S. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						of solid waste to this office.
7	Project authorities are directed to submit risk and disaster management plan along with the mitigation measures as per the stipulated condition to this office. (Specific Condition-XX)	PP didn't submit the risk and disaster management plan along with the mitigation measure to this office.	30-12-2010	XX		PP has submitted an onsite emergency plan to this office.
8	Project authorities are directed to submit compliance status of the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel plants as per the stipulated condition to this office. (Specific Condition-XXII)	PP didn't submit the compliance status of the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the steel plants to this office.	30-12-2010	XXII		PP has submitted compliance on recommendations of charter on corporate responsibility for environment protection (CREP) to this office. It was specified that they are operating only sponge iron plant.
9	Project authorities are directed to submit the implementation status of environmental management measures as mentioned in EIA/EMP as per the stipulated condition to this office. (General Condition-VI)	The documents submitted by the PP have been analyzed and it has been observed that PP has submitted the organization chart of EMC cell and Manual of 17 categories of industries of the CREP. However, PP didn't submit the details of eco-	30-12-2010		VI	It was informed by PP that all Environmental protection measures as committed in EIA /EMP report such as ESP ,bag filters ,pucca internal roads ,covered conveyers have been implemented in the existing plant. It was also informed by PP that amount of RS. 14,66 crores has been spent on Environment protection measures in

S. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
		development measures including community welfare measures in the project area to this office.				existing plant.
10	Project authorities are directed to submit the details of eco-development measures including community welfare measures in the project area as per the stipulated condition to this office.(General Condition-VIII)	No details have been provide by the PP to this office PP didn't submit the details of eco-development measures including community welfare measures in the project area to this office.	30-12-2010		VIII	PP has submitted tabulated eco development measures taken up by the company in last 5 years to this office.
11	Project authorities are directed to submit the comprehensive details of requisite funds earmarked towards total capital cost and recurring cost/ annum for environmental pollution control measures as per the stipulated condition to this office.(General Condition-X)	PP has claimed that the details of Capital cost included for environment protection and recurring cost details for implementation of control measures are submitted. However the records submitted has been thoroughly verified and the details were not found. PP didn't submit the comprehensive details of requisite funds earmarked	30-12-2010		X	PP has submitted the details of capital cost & recurring cost for environmental pollution control measures to this office.

S. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
		towards total capital cost and recurring cost / annum for environmental pollution control measures to this office.				
12	Project authorities are directed to submit the details of financial closure and final approval of the project by the concerned authorities and the project by the concerned authorities and the date of commencing the land development work to this office.(General Condition-XI)	No details have been provided by PP.PP didn't submit the details of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work to this office.	30-12-2010		XI	PP has submitted that “ we are not aware that we need to inform the ministry about commencement of land development work. We sincerely apologise for the same/We assure that this will not be repeated in future” to this office.
13	Project authorities are directed to submit the local newspaper advertisement copies in which EC was published to this office.General Condition-XVI)	PP has submitted that they have published the advertisement as per stipulation, but copies are not available with them.	30-12-2010		XVI	It was informed by PP that newspaper advertisements have been given after receipt of EC . However they could not locate the copies in their file.
14	PA has submitted the ambient air quality monitoring reports conducted at two locations inside the plant from Regional Office, Bilaspur, CECB,C.G. The report has been analyzed and it was observed that monitoring was	No justification has been provided by PP. However, On the date of monitoring online AAQ has been verified.	30-12-2010			It was informed by PP that the ambient Air quality reports monitored by CECB submitted earlier were indicating higher values due to non-functioning of water sprinkles in the plant and they replaced them with new sprinklers.

S. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	conducted at two locations(i.e near canteen and near labor room) in both the locations the PM ₁₀ values were found 98.0 and respectively. Which indicates ambient quality was almost nearer to prescribed standard i.e. 100					

Deliberations by the Committee

25.9.19 The Committee noted the following:

1. The instant proposal is for expansion of DRI Kilns (Sponge Iron from 90,000 TPA to 4,86,000 TPA), New Induction Furnace with matching LRF & CCM (Billets / Ingots / Hot Billets) 2,97,000 TPA, New Rolling Mill (TMT Bars / Structural Steel) 2,64,000 TPA, New Ferro Alloys Unit 2 x 9 MVA (FeMn- 50,400 TPA / SiMn- 28,800 TPA / FeCr – 30,000 TPA / FeSi – 14,000 TPA), New WHRB based Power Plant - 34 MW & New FBC based Power Plant - 30 MW, New Brick manufacturing unit - 50,000 bricks/day, New Slag crushing unit - 100 TPD, New Briquetting unit - 200 Kg/hour.
2. The EAC noted that the existing project was accorded environmental clearance vide J-11011/780/2008-IA II (I) dated 30/12/2010. However, PP has not implemented most of the facilities envisaged in the existing EC. PP shall submit the reasons for not implementing the complete project.
3. The EAC deliberated on the certified compliance report of IRO dated 07.06.2022 wherein non-compliance / partial compliance were observed by the IRO. On the ATR dated 29.12.2022 submitted by project proponent, IRO has submitted a review report, however, closure report after site verification by IRO has not been obtained by the project proponent. The EAC advised PP/Consultant needs to obtain the closure report on the non-complied / partially complied conditions from IRO after site verification.
4. The total project area is 38.98 ha. Existing plant is located in 24.29 Ha. and additional land of 14.69 ha is envisaged for proposed expansion project. Out of total project area, 27.19 ha of land is under possession and remaining 11.79 ha is Govt. land which is under allotment process. The EAC is of the opinion that complete land shall be acquired by the project proponent.
5. PP has reported that existing green belt has been developed in 8.1 Ha. area which is about 33 % of the Existing plant area of 24.29 Ha. with total sapling of 17,000 Trees (@2098

plants/ha). Proposed greenbelt is proposed to be developed in 10.21 Ha making total of 18.21 ha area (46.7 % of total project area i.e. 38.98 Ha.) involving plantation of 34000 saplings in 2 years. The EAC noted that considering that the plant operations are running for more than a decade, PP has not been able to develop the greenbelt as per CPCB guidelines of 2500 plants/ha. Also, the proposed total greenbelt plan submitted works out to be 1867 plants/ha, which is again less than the CPCB guidelines. In view of the same, the EAC is of the opinion that gap filling in the existing greenbelt to reach 2500 plants/ha shall be completed at the earliest. Also, PP shall review that proposed greenbelt plan and shall submit the revised plan as per CPCB guidelines.

6. Kachhar is at a distance of 0.6 km in the West direction and Sendri at 0.6 km in the South direction from project site. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that environmental safeguard measures shall be submitted to minimize the impact of the project activities on the nearest habitation.
7. Arpa River is at a distance of 1.6 km in the West direction of the project site. The EAC is of the opinion that river is required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.
8. Total water requirement after expansion is estimated as 2640 m³/day, which is proposed to be obtained from the Arpa river. PP reported that the permission for supply of surface water for existing plant and for proposed expansion project is under process. The EAC is of the view that updated status of water permission shall be submitted.
9. The EAC deliberated on the traffic study data submitted by the project proponent and observed that PP has not submitted existing Level of service at study road (i.e. V/C ratio) in the brief. The EAC advised PP to submit complete details in the brief.
10. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be submitted.
11. The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.
12. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee

25.9.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 25.9.19 above. The proposal may be considered after submission of the requisite information

Agenda No. 25.10

25.10 Expansion & Modernization of Integrated Steel Plant-Blast Furnace - 0.75 MTPA to 2.00 MTPA (0.75 MTPA to 1 MTPA through modernization) Sinter Plant - 0.80 MTPA to 2.80 MTPA, Pellet Plant -1.5 MTPA to 3.0 MTPA, Coke Oven -0.20 MTPA to 1.10 MTPA, Air Separation unit (Oxygen Plant) - 510 TPD to 1500 TPD, Steel Melt Shop -1.20 MTPA to 2.40 MTPA, Rolling Mill - 1.20 MTPA to 2.40 MTPA, Cement Grinding unit-2.40 MTPA, Producer Gas Plant - 1,16,000 Nm³ /hr., Power Plant - 26 MW to 130 MW (Proposed 104 MW-BF GAS and COKE OVEN GAS) DRI Plant (350 TPD + 500 TPD) - 0.27 MTPA(0.12 +0.15) to 0.35 MTPA (Under CTE/CTO Now), Power plant - 30 MW (2x 15 MW Turbine - WHRB and AFBC, Operating Under CTE/CTO) by M/s Jayaswal Neco Industries Limited, located at Siltara Industrial Growth Center, Siltara, Sankra, Giroud, Dhaneli (V), Raipur (D & T), Chhattisgarh - Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND1/419709/2023; File No. J-11011/883/2008-IA.II(I)]

[Consultant : Pioneer Enviro Consultants Pvt. Ltd.; Valid upto: 06.06.2023]

25.10.1 M/s. Jayaswal Neco Industries Limited has made an online application vide proposal no. Proposal No. IA/CG/IND1/419709/2023; dated 11.03.2023 along with copy of EIA/EMP report, Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

25.10.2 Name of the EIA consultant: M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2699; valid upto 06.06.2023, as on March 23, 2023].

Details submitted by Project proponent

25.10.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
6 th November 2021	Standard ToR Granted	TOR issued	10 th November 2021	9 th November 2025

25.10.4 The project of M/s. Jayaswal Neco Industries Limited located in Siltara Growth Center, Siltara, Sankra, Giroud, Dhaneli Villages, Raipur (District and Tehsil), Chattisgarh State is for

expansion and Modernization of its existing Integrated Steel Plant from 1.2 MTPA to 2.4 MTPA. Further, PP has requested for Consolidated Environmental Clearance after having acquired the projects of M/s. Abhijeet Infrastructure Limited & M/s. Corporate Ispat Alloys Limited which were running on the basis of CTE/CTO.

25.10.5 Environmental Site Settings:

S.No.	Particulars	Details		Remarks																																																						
1.	Total land	481.292 Ha. (1189.3 Acres)		Located in Siltara Growth Centre																																																						
2.	Land acquisition details as per MoEF&CC, O.M.dated7/10/2014.	Particular of land	Area in Hectare	Entire land is in possession																																																						
		CSIDC Leased Land (lease)	417.35																																																							
		Land came in possession due to merger of adjoining assets vide high court order	35.721																																																							
		Private land (acquired)	28.221																																																							
		Total	481.292																																																							
3.	Existence of habitation & involvement of R&R, if any.	<p>Project site: No habitation exists, no R&R involved, as the plant is in Declared Industrial Area. There is no increase in land area.</p> <p>Study Area</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Not applicable</td> <td>---</td> <td>---</td> </tr> </tbody> </table>		Habitation	Distance	Direction	Not applicable	---	---	The plant had been commissioned in the year 1994-1996 on CSIDC leased land which is in the Declared Industrial Area. No additional land is required for expansion--																																																
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Not applicable	---	---																																																								
4.	Latitude and Longitude of all corners of the project site	<p>The following are the Coordinates of the Plant site</p> <table border="1"> <thead> <tr> <th>S.no</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr><td>1</td><td>21°20'45.93"N</td><td>81°39'23.27"E</td></tr> <tr><td>2</td><td>21°20'51.61"N</td><td>81°40'13.71"E</td></tr> <tr><td>3</td><td>21°20'33.46"N</td><td>81°40'6.08"E</td></tr> <tr><td>4</td><td>21°20'28.22"N</td><td>81°40'2.18"E</td></tr> <tr><td>5</td><td>21°20'25.50"N</td><td>81°40'10.13"E</td></tr> <tr><td>6</td><td>21°20'20.69"N</td><td>81°40'10.12"E</td></tr> <tr><td>7</td><td>21°20'23.46"N</td><td>81°40'24.45"E</td></tr> <tr><td>8</td><td>21°20'38.26"N</td><td>81°40'24.29"E</td></tr> <tr><td>9</td><td>21°20'37.77"N</td><td>81°40'28.52"E</td></tr> <tr><td>10</td><td>21°20'42.08"N</td><td>81°40'29.08"E</td></tr> <tr><td>11</td><td>21°20'43.14"N</td><td>81°40'15.11"E</td></tr> <tr><td>12</td><td>21°20'51.04"N</td><td>81°40'14.67"E</td></tr> <tr><td>13</td><td>21°20'57.61"N</td><td>81°40'37.80"E</td></tr> <tr><td>14</td><td>21°20'44.00"N</td><td>81°41'8.81"E</td></tr> <tr><td>15</td><td>21°21'14.48"N</td><td>81°40'56.05"E</td></tr> <tr><td>16</td><td>21°21'41.59"N</td><td>81°40'56.32"E</td></tr> <tr><td>17</td><td>21°21'56.20"N</td><td>81°40'19.36"E</td></tr> </tbody> </table>		S.no	Latitude	Longitude	1	21°20'45.93"N	81°39'23.27"E	2	21°20'51.61"N	81°40'13.71"E	3	21°20'33.46"N	81°40'6.08"E	4	21°20'28.22"N	81°40'2.18"E	5	21°20'25.50"N	81°40'10.13"E	6	21°20'20.69"N	81°40'10.12"E	7	21°20'23.46"N	81°40'24.45"E	8	21°20'38.26"N	81°40'24.29"E	9	21°20'37.77"N	81°40'28.52"E	10	21°20'42.08"N	81°40'29.08"E	11	21°20'43.14"N	81°40'15.11"E	12	21°20'51.04"N	81°40'14.67"E	13	21°20'57.61"N	81°40'37.80"E	14	21°20'44.00"N	81°41'8.81"E	15	21°21'14.48"N	81°40'56.05"E	16	21°21'41.59"N	81°40'56.32"E	17	21°21'56.20"N	81°40'19.36"E	--
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		19	21°21'15.22"N	81°39'36.47"E																									
		20	21°20'54.45"N	81°39'28.95"E																									
5.	Elevation of the project site	272 m to 298 m			--																								
6.	Involvement of Forest Land, if any	None			Located in Siltara Growth Centre																								
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.,) exists within the project site as well as study area	<p>Project Site: The Canal which is passing through the southern boundary</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Kharun River</td> <td>5.0 Kms.</td> <td>NW</td> </tr> <tr> <td>Mandhar Branch Canal</td> <td>0.3 kms.</td> <td>East</td> </tr> <tr> <td>Siltara Village Pond</td> <td>0.35 Kms.</td> <td>North</td> </tr> <tr> <td>Giroud village Pond</td> <td>0.7 Kms.</td> <td>South</td> </tr> <tr> <td>Dhaneli Village Pond</td> <td>0.6 Kms.</td> <td>South</td> </tr> <tr> <td>Mandhar Village Pond</td> <td>0.5 Kms.</td> <td>SE</td> </tr> <tr> <td>Sankara Village Pond</td> <td>0.15 Kms.</td> <td>W</td> </tr> </tbody> </table>			Habitation	Distance	Direction	Kharun River	5.0 Kms.	NW	Mandhar Branch Canal	0.3 kms.	East	Siltara Village Pond	0.35 Kms.	North	Giroud village Pond	0.7 Kms.	South	Dhaneli Village Pond	0.6 Kms.	South	Mandhar Village Pond	0.5 Kms.	SE	Sankara Village Pond	0.15 Kms.	W	Proposal for diversion of canal submitted, and the process of diversion is in process. However it has been opined by the irrigation department that since last 25 years when this area had been declared as industrial area, these irrigation Sub-canal is not in use. (However the canal will be kept fully protected)
Habitation	Distance	Direction																											
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8.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Nil.			--																								

25.10.6 EC was initially granted vide letter No. J-11011/11/94-IA.II(I) dated 26.05.1995 for installation of blast furnace (600 m³) to produce 3,50,000 TPA of pig iron along with 8 MW CPP based on blast furnace gas in the name of Nagpurt Alloys Castings Ltd. Subsequently various amendments had been made in EC by adding capacities and additional facilities, the last amendment in EC was granted vide No. J-11011/883/2008-IA-II (I) dated 26.03.2009. Two Units of DRI Plant and Associated power plant which were operating under CTO granted by the SPCB in the nanme of two group companies namely M/s. Abhijeet Infrastructure Limited & M/s. Corporate Ispat Alloys Limited who have installed 350 TPD DRI plant and 15 MW (7.5 MW AFBC + 7.5 MW WHRB) power plant and 500 TPD DRI plant and 15 MW (12 MW WHRB + 3 MW AFBC)

power plant respectively in the year 2006 and 2007. The same have been demerged from those respective group companies and had been merged with Jayaswal Neco Industries Limited vide High Court order dated 13th November 2009.

PP has further reported that after merger, the company had approached MOEF&CC vide letter dated 20.02.2014 for amendment in EC by addition of the DRI plants and Power Plants of the merged unit. During the presentation on 25.02.2015, it was advised that there is no such provisions of merging the units which are operating under CTO, and the request was rejected without any direction. Again the company approached MOEF on 07.12.2019 for issuance of fresh TOR for merger of the units with Jayaswal Neco Industries Limited. However the proposal was returned back with a direction “to integrate the proposal by consolidating all the existing units”. Since the current EC had expired after the validity of 10 years hence it was advised to file for fresh TOR incorporating all the Expansion and Modernisation program along with the DRI plant and Power plant which had come as merger.

The current status of CTO is as under:

- CTO for Steel complex vide order no. 7303/TS/CECB/2022 dated 12/01/2022 (valid up to 31/12/2024),
- CTO for Pellet plant capacity enhancement vide no. 8386 /TS/CECB/2022 dated 18/02/2022 (valid up to 31/12/2024)
- CTO for 350 TPD (1,20,000 TPA) DRI unit & power plant vide order no. 2558 /TS/CECB/2022 DATED 07-07-2022 (valid up to 31-07-2024)
- CTO for 500 TPD (1,50,000 TPA) DRI unit& power Plant vide order no. 3107 /TS/CECB/2022 DATED 27-07-2022 (valid up to 30-09-2024).

25.10.7 Implementation status of the existing EC:

S. No	Facility	Units	As per E.C. dated J-11011/883/2008-IA-II (I) dated 26-03-2009	Implementation Status as On date	Production as per CTO
1	Blast Furnace	MTPA	1.75 (0.65 0.10+1.00)	Partially implemented	0.65 MTPA
	BF Gas based Power Plant	MW	44	Partially Implemented	8 MW + 6 MW
2	Sinter plant	MTPA	2.8	Partially implemented	0.8 MTPA
3	Pellet Plant	MTPA	2.5	Partially implemented	1.5 MTPA
4	Coke Oven	MTPA	0.868	Partially implemented	0.20 MTPA
	Coke oven heat based Power Plant	MW	63	Partially implemented	12 MW (WHRB) (2 x 6 MW)

S. No	Facility	Units	As per E.C. dated J-11011/883/2008-IA-II (I) dated 26-03-2009	Implementation Status as On date	Production as per CTO
5	Air Separation unit (Oxygen plant)	TPD	510	Fully Implemented	510 TPD
6	Steel Melting Shop	MTPA	2.4	Partially Implemented	1.2 MTPA
7	Rolling Mill	MTPA	2.4	Partially implemented	1.2 MTPA
8	DRI & Power Plant	MTPA	Not in EC	Fully Implemented	0.12 + 0.15 MTPA (350 TPD + 500 TPD)
		MW	Not in EC	Partially Implemented	15 + 12 MW (7.5 + 12 MW WHRB and 7.5 MW AFBC)
9	Cement Grinding Unit	MTPA	2.4	Not implemented	-----
10	Gasifier plant	Nm ³ /Hr	Not in EC	Not implemented	-----

25.10.8 The unit configuration and capacity of existing and proposed project is given as below:

S. No	Facility (Product)	Existing Capacity (in operation)	Proposed Capacity	Capacity after Expansion
1	Blast Furnace & BF Gas based Power Plant (Pig iron/Hot Metal) (Electricity) Associated BF Gas based power plant (Additional 30 TPH AFBC Boiler Standby boiler)	0.75 MTPA	0.25 MTPA (with modernization)+ 1.00 MTPA (1x 1000 M ³)	2.0 MTPA (750 M ³ + 1000 M ³)
		8 MW + 6 MW (BF Gas Based)	04+24 MW (BF Gas Based)	42 MW (BF Gas Based)
2	Sinter plant (Sinters)	0.8 MTPA (2 x36 M ²)	2.0 MTPA (5 x36 M ²)	2.8 MTPA (2 x36 M ² + 5 x36 M ²)
3	Pellet Plant (Pellets)	1.5 MTPA	1.5 MTPA	3.0 MTPA (2 x 1.5 MTPA)
4	Coke Oven & Power Plant (Coke) (Electricity)	0.2 MTPA 4 set of batteries consisting of 11 ovens	0.9 MTPA 18 set of batteries consisting of 11 ovens	1.10 MTPA 22 set of batteries consisting of 11 ovens

S. No	Facility (Product)	Existing Capacity (in operation)	Proposed Capacity	Capacity after Expansion
		12 MW (WHRB) 2 x 6 MW	76 MW (WHRB) 6 x 6 MW + 2 x 20 MW	88 MW (WHRB) 8 x 6 MW + 2x 20 MW
5	Oxygen plant (Oxygen)	510 TPD	990 TPD	1500 TPD
6	Steel Melting Shop- EAF (Hot Billets / MS Billets / Slabs)	1.2 MTPA (1 x 50 TPH + 1 x 80 TPH)	1.2 MTPA (2 x 70 T)	2.4 MTPA (1 x 50 TPH + 1 x 80 TPH + 2 x 70 TPH)
7	Rolling Mill (Bright Bar / BSM/ Wire Rod/ Rolled Products)	1.2 MTPA 1 x 25 TPH + 1 x 50 TPH + 1 x 90 TPH	1.2 MTPA (2 x 90 TPH)	2.4 MTPA 1 x 25 TPH + 1 x 50 TPH + 2 x 90 TPH
8	DRI & Power Plant (Sponge Iron) (Electricity turbine 2 x 15 MW)	0.12* + 0.15** MTPA (350 TPD + 500 TPD)	0.08 MTPA (Change in fuel under modernization)	0.35 MTPA
	Power Plant	1 x 7.5 MW WHRB* 1 x 7.5 MW FBC* 1 x 12 MW WHRB**	-----	30 MW (Turbine 2 x 15 MW)
9	Cement Grinding Unit (Cement)	-----	2.4 MTPA	2.4 MTPA
10	Gasifier (Producer Gas plant) (as a fuel, substitute of FO)	-----	1,16,000 Nm ³ /hrs (29 x 4000 Nm ³ /hrs)	1,16,000 Nm ³ /hrs (29 x 4000 Nm ³ /hrs)

Pellet plant capacity enhancement from 1.2 MTPA to 1.5 MTPA obtained under No increase in Pollution load., CTO is amended accordingly.

For 350 TPD DRI Plant + 15 MW power plant and 500 TPD DRI Plant and 15 MW Power plant had been operating under the CTE/CTO granted by CECB in the name of Abhijeet Infrastructure Limited and Corporate Ispat Alloys Limited. Vide High Court Bombay order dated 13-11-2009, Both the plants demerged from those respective company and merged with M/s. Jayaswal Neco Industries Limited. These plants are adjoining plants.

25.10.9 The details of the raw material requirement for the proposed expansion project along with its source and mode of transportation is given as below:

S. No.	Name of Raw Material	Quantity in TPA			Source	Mode of Transportation
		Existing	Expansion	After expansion		
1	Iron ore	553500	267500	8,21,000	Own Mines (Metabodeli, Chhotedongar iron Ore Mines)	By Road (covered Trucks)

S. No.	Name of Raw Material	Quantity in TPA			Source	Mode of Transportation
		Existing	Expansion	After expansion		
2	Iron Ore fines	2244380	32,44,320	54,88,700	Own Mines (Metabodeli, Chhotedongar iron Ore Mines)	By Road (covered Trucks)
3	LAM coal (coking Coal)	290720	1308240	1598960	Imported (South Africa, Indonesia, Australia)	By Ship, By Road (covered Trucks)
4	Pulverized Coal (PCI)	87000	145000	232000	Imported (South Africa, Indonesia, Australia)	By Ship, By Road (covered Trucks)
5	Imported High Grade Coal	3,78,000	----	3,46,500	Imported (SA, Indonesia, Aus)	By ship and Road (covered Trucks)
6	Indian Coal	120000	400000	520000	SECL /local	By Rail & Road (covered Trucks)
7	Quartzite	7500	12500	20000	Open Market	By Road (covered Trucks)
8	Bentonite	10950	10950	21900	Local Market	By Road (covered Trucks)
9	Clinker	-	1560000	1560000	Local Market	By Rail & Road (covered Trucks)
10	Gypsum +Other Waste	-	96200	96200	Own Generation /Local Plant	By Road (covered Trucks)
11	Lime Stone	138370	296650	435020	Local Market	By Road (covered Trucks)
12	Dolomite	10,800	----	10,500	Local market	By Road (covered Trucks)
13	LDO	23100	23100	46200	Local Market /own Plant	By Road (covered Trucks)

25.10.10 Existing Water requirement is 15,000 m³/day, water requirement is obtained from River Kharoon wherein an anicut had been constructed by JNIL with CSIDC. The unit had sanction for 8 MGD drawl from the same from WRD GOC wide letter dated S.No.5323/29/14/M/31/01 dated 28-10-2002..The water requirement for the proposed expansion project is estimated at 12,646 m³/day and will also be sourced from the anicut at River Kharoon.Total requirement of

water with the expansion is 27,646 m³/day which is equivalent to 6.30 MGD. The company holds a sanction of 8 MGD from WRD GOC, and had constructed an anicut to meet its total requirement. Hence no additional water permission is required for the expansion project.

25.10.11 Power required for the Existing Plant & CTO permitted units is 161.3 MW and is being sourced from 56 MW Captive Power plant & remaining from State Grid. Power required for the proposed expansion project will be 191.4 MW out of which 104 MW is from Captive Power plant & remaining from State Grid. Total power requirement after expansion is 352.7 MW. Out of which 160 MW will be sourced from captive power plant and remaining will be sourced from the state grid.

25.10.12 Baseline Environmental Studies:

Period	15 th October 2021 to 15 th January 2022																			
AAQ parameters at 8 locations	<ul style="list-style-type: none"> PM_{2.5}= 26.4 to 48.6 µg/m³ PM₁₀= 45.8 to 83.8 µg/m³ SO₂= 9.0 to 24.5 µg/m³ NO₂= 10.1 to 38.4 µg/m³ CO= 544 to 1658 µg/m³ Other Parameters such as O₃, Arsenic, Nickel, Lead, Ammonia, Benzene, BaP was found BDL 																			
AAQ modelling	<ul style="list-style-type: none"> PM₁₀= 5.1 µg/m³ (1400 m) SO₂= 13.4 µg/m³ (1650 m) NO₂= 22.9 µg/m³ (1480 m) CO= 4.8 µg/m³ 																			
Ground water quality at 8 locations	<ul style="list-style-type: none"> pH : 7.15 to 7.57 TDS : 363 to 1064 mg/l TSS : 0.22 to 0.88 mg/l Chlorides : 124 to 509 mg/l Total Hardness : 268 to 420 mg/l Fluoride : 0.2 to 0.54 (in mg/l) Heavy metals (Iron -Fe) : 0.12 to 0.26 mg/l 																			
Surface water quality at 5 locations	pH : 6.85 to 7.41; DO (in mg/l) : 4.0 to 6.9; TDS (in mg/l) : 253 to 689, Sulphates (in mg/l) : 86 to 234, Chlorides (in mg/l) : 129 to 352																			
Noise levels	50.40 dBA to 66.90 dBA for day time and 49.08 to 65.01 dBA for night time.																			
Traffic assessment study findings	<p>Traffic study has been conducted at NH # 30 (Raipur to Bilaspur), which is Adjacent to the plant site.</p> <p>Transportation of raw material, fuel & finished product will be done 60% by road.</p> <p>Existing PCU is 1559.5 PCU/hr on NH # 30 and existing Level of Service (LOS) is :</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr)</th> <th>C (Capacity in PCU/hr)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH # 30</td> <td>1559.5</td> <td>2900</td> <td>0.54</td> <td>C</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 1559.5 (Existing) + 220 (Additional) and Level of Service (LOS) will be</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr)</th> <th>C (Capacity in PCU/hr)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> </table>					Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	NH # 30	1559.5	2900	0.54	C	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS
Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS																
NH # 30	1559.5	2900	0.54	C																
Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS																

	NH # 30	1559.5 + 220	2900	0.61	D
	Note: Capacity as per IRC-106-1990 Guide line for capacity for roads.				
	Level of Service (LOS) of the Road as per IRC 73: 1980				
	V/C	LOS	Performance		
	0.0 – 0.2	A	Excellent		
	0.2 – 0.4	B	Very Good		
	0.4 – 0.6	C	Good		
	0.6 – 0.8	D	Fair/ Average		
	0.8 – 1.0	E	Poor		
	1.0 &Above	F	Very Poor		
	<p>Conclusion: 1) The level of service is categorised under ‘D’, which implies “Fair/ Average” After including additional traffic due to proposed project.</p> <p>2) NH#30 is being upgraded to 6-lane road . With that LOS will be 1779.5/4300 : 0.42 (“GOOD)</p> <p>Hence the existing road is capable of taking the additional traffic load.</p>				
Flora and fauna	No schedule I fauna and endangered Flora found within the study area of the project.				

25.10.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Name of Waste	Quantity in TPA		Mode of Treatment / Utilization / Method of disposal
		Existing	After expansion	
Blast Furnace				
	Capacity	7,50,000 (6,50,000 + 1,00,000)	20,00,000	
1	BF Slag	2,62,500	8,00,000	Will be used as Raw material for cement making in proposed Cement Grinding unit.
2	Flue Dust	7,800	20,800	Is being / will be reused in sinter plant.
3	GCP Sludge	3,450	9,200	
Sinter Plant				
	Capacity	8,00,000	28,00,000	
1	ESP DUST	34,000	1,03,480	Is being / will be reused in Sinter plant
Coke Oven				
	Capacity	2,00,000	11,00,000	
1	Coke Breeze	10,617	43,560	Is being / will be used in pellet plant
2	Coke Dust	4,424	18,150	Is being / will be reused in Sinter plant
Steel Melting Shop				
	Capacity	12,00,000	24,00,000	

S. No.	Name of Waste	Quantity in TPA		Mode of Treatment / Utilization / Method of disposal
		Existing	After expansion	
1	Slag	1,24,000	2,48,000	After metal recovery it will be utilized for Road construction & used in own fly ash brick making.
3	Flue Dust	31,200	62,400	Is being / will be used in sinter plant
Rolling Mill				
	Capacity	12,00,000	24,00,000	
1	Mill Scales	12000	24,000	are being / will be reused in Sinter plant
Pellet Plant				
	Capacity	15,00,000	30,00,000	
1	Dust	56,250	1,12,500	Flue dust to be recycled back to pellet plant.
Cement Plant				
	Capacity	0.0	24,00,000	
1	Dust from APCS	--	7200	Will be totally recycled in the process for Cement manufacturing.
Power Plant				
	Capacity	15 MW	--	
1	Bottom Ash	13,247	8,333	Road construction and low laying area felling.
2	Fly Ash	54,247	34,183	Used in own fly ash Brick Making unit & proposed to use in Cement Plant
DRI Plant				
	Capacity	2,70,000	3,50,000	
1	Char/Dolochar	94,500	42,000	Using in AFBC for Power Generation
2	ESP Dust	56,700	42,000	Used in own fly ash Brick Making unit & low laying area filling
Producer Gas Plant				
	Capacity	--	1,16,000 Nm³/Hrs	
1	Ash	--	160000 TPA	For road construction and low laying area.

Hazardous waste generation, storage & disposal:

Waste oil: 30 KL / Annum

This will be stored in covered HDPE drums in a designated area and will be sold to SPCB approved vendors/recyclers.

Used Batteries

Used batteries will be given back to the supplier under buy back agreement with supplier.

25.10.14 Public Consultation:

Details of advertisement given	Dainik Bhaskar & Punjab Kesari News Papers on 24 th April 2022 in
Date of public consultation	25 th May 2022
Venue	Open Ground closed to the JNIL Plant, Dhaneli Village, Dharsiwa Tehsil, Raipur District (C.G)
Presiding Officer	Additional District Magistrate
Major issues raised	<ul style="list-style-type: none"> • Developmental activities • Employment to Local unemployed youth • Support to Merit students • Infrastructure facilities • Environment Protection measures

Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

As a part of Social welfare development a budget of Rs. 3.31Crores will be allocated for for Social & Infrastructure developmental activities based on Social Impact Assessment (SIA) after completion of Public Hearing which is inclusive of Adoption of villages

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation
1	Developmental activities taken up by the management	<p>In the existing plant socio economic developmental activities have been taken up by the company . An Amount of Rs. 1.25 Crores has been spent in last 3 years in the surrounding villages.</p> <p>In the proposed expansion social infrastructural developmental activities will be taken up in consultation with village panchayats.</p>	<p>2018-19 2019-20 2020-21</p> <p>1st year 2nd Year 3rd year</p>	<p>Rs. 0.42 Cr. Rs. 0.44 Cr. Rs. 0.38 Cr.</p> <p>Rs. 0.97 Cr. Rs. 1.17 Cr. Rs. 1.17 Cr.</p>
2	Local unemployed youth should get employment.	<ul style="list-style-type: none"> • JNIL management has already provided employment to about 70 percent people of nearby villages and Chhattisgarh in the existing plant and in this expansion, also employment will be given on priority basis to the local eligible people in future. • Employment will be given to the local people on priority According to the suitability. • JNIL had total employment strength of 5300 numbers in existing plant. This includes contractual employment to the tune of 2100 Nos. Additional employment requirement due to expansion projects will be 2000 Numbers (regular as well as contractual). Local people will be 	<p>----</p> <p>1st year 2nd year 3rd year</p>	<p>----</p> <p>Rs. 10 Lakhs Rs. 10 Lakhs Rs. 10 Lakhs</p>

		employed in phased manner. The company is committed to provide 80 to 90% of employment (Skilled as well as unskilled) to the local youths. Apart from that Company will provide skill development training to unemployed youth and help them in getting employment/self-employment		
3	NGT and CPCB the survey was done inside of Jayaswal NECO. No criteria are met here. First this criterion should be fulfilled, after that permission should be given for taking up expansion of industry in Siltara.	There is no directions issued by NGT. The Integrated Regional office of MOEF&CC has issued Certified compliance report vide dated 20.05.2022 and 3.02.2023. According to that we have complied with all conditions stipulated in Environmental Clearance.	----	----
4	Employment details	The land has been acquired by the Madhya Pradesh Audyogik Kendra Vikash Nigam (MPAKVN), Govt. of Madhya Pradesh (Before bifurcation of state) for setting up an Industrial Development Center and accordingly land has been given to the industries by AKVN for setting up industries. During that time employment has been provided to the land givers on the basis of the conditions laid down by the government. We also would like to inform that NECO management has already provided jobs to 70 percent people of nearby villages and Chhattisgarh in the industry and in this proposed expansion also, employment will be given on priority basis to the local eligible people . Apart from that Company will provide skill development training to 50 nos of unemployed youth in 3 villages and help them in getting employment/self-employment.	----	----
			1st year 2nd year 3rd year	Rs. 10 Lakhs Rs. 10 Lakhs Rs. 10 Lakhs
5	Support to the Students who cannot pursue further studies due to economically poor condition.	Merit students of economically poor sections in Dhaneli, Girod, Tekari, Sankra, Siltara, Mandhar Villages will be provided with merit scholarships till the completion of their education under CSR.	Every year	Rs. 4 Lakhs Rs. 4 Lakhs Rs. 4 Lakhs
6	Infrastructure facilities shall be provided in villages	We assure that the management will take the approval from the concerned village panchayats / take cognizance of the needs of the panchayats regarding infrastructural facilities such as clearing / laying of drains ,	1st year 2nd year 3rd year	Rs. 0.97 Cr. Rs. 1.17 Cr. Rs. 1.17 Cr.

		erecting poles, providing LED lights & other infrastructural facilities under the social infrastructure development fund in Dhaneli, Girod, Tekari, Sankra, Siltara, Mandhar Villages.		
7	One Person by name Rohitkumar Working as contract labor in NECO company and it was committed that he will be made permanent in 6 months. Even after two and half years he was not made permanent.	Permanent job has been given to Mr.RohitKumar by the Company.	----	----
8	Description about the land , environment, forest, water , terms of reference and environment protection measures.	<p>In our existing plant we have installed & operating the environmental protection measures such as ESPs, Bagfilters, covered conveyers, dry fog system, dust suppression system, mechanical dust sweepers, Zero liquid discharge system, solid waste utilization/disposal as per permitted procedures, greenbelt covering 39 % of total area, are complying with all the stipulated norms .</p> <p>In the proposed expansion also air emission control systems such as ESPs, Bagfilters, covered conveyers, dry fog system, dust suppression system, mechanical dust sweepers will be provided. Outlet dust emissions will be limited to 30 mg/Nm³ for sinter, Power plant, coke oven units and 10 mg/Nm³ for Blast furnace units. Interlocking systems will be provided at appropriate places and whenever the emissions exceed the stipulated standard, raw material feed to the unit will be stopped and there will be no production in the unit till APCS is rectified.</p> <p>Effluent will be treated in ETP and after ensuring compliance with the norms the treated effluent will be utilized for dust suppression in CHP & other areas, used for slag quenching, etc. Additional STPs will be provided for treatment of sanitary wastewater . Treated sewage will be utilized for greenbelt development. Zero Liquid discharge will be followed in expansion also.</p>	2023-27	Budget allocated for Environment, health & Safety measures within the plant premises. Rs.233 Cr

		<p>Regarding Solid waste disposal, efforts will be made to reuse/recycle the waste to the best possible extent and disposal of other wastes will be in accordance with the permitted procedures.</p> <p>189 Ha. Of Greenbelt is already been developed in the plant premises, which is about 39 % of the plant area i.e., 481.292 Ha. It is proposed to develop additional greenbelt over an extent of 3.5 Ha. with 10,000 nos. of plants.</p> <p>Periodic health checkup are being carried out in the nearby villages. This will be continued after expansion also under CSR.</p> <p>Primary Health Center will be upgraded in the plant along with ambulance facility</p>	<p>2023-25</p> <p>Every year</p> <p>2023-25 2025-27</p>	<p>Rs. 0.1 Cr.</p> <p>Rs. 0.1 Cr.</p> <p>Rs. 0.3 Cr. Rs. 0.2 Cr.</p>
9	Developmental activities carried out by the company in recent years	<p>In the existing plant socio economic developmental activities have been taken up by the company . An Amount of Rs Rs.1.25 Crores has been spent in last 3 years in the surrounding villages.</p> <p>In the proposed expansion social infrastructural developmental activities will be taken up in consultation with village panchayats.</p>	<p>2018-19 2019-20 2020-21</p> <p>1st year 2nd year 3rd year</p>	<p>Rs. 0.42 Cr. Rs. 0.44 Cr. Rs. 0.38 Cr.</p> <p>Rs. 0.97 Cr. Rs. 1.17 Cr. Rs. 1.17 Cr.</p>
10	Siltara industrial area is already polluted	<p>The plant is situated in Siltara Industrial Area. The ambient air quality is within the National Ambient Air Quality standards. The net resultant Ground Level concentrations during operation of the expansion project will be within the National Ambient Air Quality Standards. Hence there will not be any significant impact on environment due to the proposed expansion.</p> <p>In our existing plant we have installed & operating the environmental protection measures such as ESPs, Bagfilters, covered conveyers, dry fog system, dust suppression system, mechanical dust sweepers, Zero liquid discharge system, solid waste utilization/disposal as per permitted procedures, greenbelt covering 39 %</p>	2023-27	<p>Budget allocated for Environment, health & Safety measures within the plant premises.</p> <p>Rs.233 Cr</p>

		<p>of total area, are complying with all the stipulated norms .</p> <p>In the proposed expansion also air emission control systems such as ESPs, Bagfilters, covered conveyers, dry fog system, dust suppression system, mechanical dust sweepers will be provided. Outlet dust emissions will be limited to 30 mg/Nm³ for sinter, Power plant, coke oven units and 10 mg/Nm³ for Blast furnace units. Interlocking systems will be provided at appropriate places and whenever the emissions exceed the stipulated standard, raw material feed to the unit will be stopped and there will be no production in the unit till APCS is rectified.</p> <p>Effluent will be treated in ETP and after ensuring compliance with the norms the treated effluent will be utilized for dust suppression in CHP & other areas, used for slag quenching, etc. Additional STPs will be provided for treatment of sanitary wastewater . Treated sewage will be utilized for greenbelt development. Zero Liquid discharge will be followed in expansion also.</p> <p>Regarding Solid waste disposal, efforts will be made to reuse/recycle the waste to the best possible extent and disposal of other wastes will be in accordance with the permitted procedures.</p> <p>189 Ha. of Greenbelt is already been developed in the plant premises, which is about 39 % of the plant area i.e., 481.292 Ha. It is proposed to develop additional greenbelt over an extent of 3.5 Ha. with 10,000 nos. of plants.</p> <p>Periodic health checkup are being carried out in the near by villages. This will be continued after expansion also under CSR.</p> <p>Primary Health Center will be upgraded in the plant along with ambulance facility</p>	<p>2023-25</p> <p>Every year</p> <p>2023-25 2025-27</p>	<p>Rs. 0.1 Cr.</p> <p>Rs. 0.1 Cr.</p> <p>Rs. 0.3 Cr. Rs. 0.2 Cr.</p>
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11	The company management has so far taken 1200 acres from the local people but did not give them jobs	<p>The land has been acquired by the Madhya Pradesh Audyogik Kendra Vikash Nigam (MPAKVN), Govt. of Madhya Pradesh (Before bifurcation of state) for setting up an Industrial Development Center and accordingly land has been given to the industries by Madhya Pradesh Audyogik Kendra Vikash Nigam for setting up industries. During that time employment has been provided to the land givers on the basis of the conditions laid down by the government.</p> <p>We also would like to inform that NECO management has already provided jobs to the 70 percent people of nearby villages and Chhattisgarh in the industry and in this proposed expansion also, employment will be given on priority basis to the local eligible people .</p> <p>Apart from that Company will provide skill development center to train unemployed youth and help them in getting employment/self employment.</p>	<p>----</p> <p>1st year 2nd year 3rd year</p>	<p>----</p> <p>Rs. 10 Lakhs Rs. 10 Lakhs Rs. 10 Lakhs</p>
12	Developmental activities taken up by the existing plant in the area	<p>In the existing plant socio economic developmental activities have been taken up by the company . An Amount of Rs Rs.1.25 Crores has been spent in last 3 years in the surrounding villages.</p> <p>In the proposed expansion social infrastructural developmental activities will be taken up in consultation with village panchayats.</p>	<p>2018-19 2019-20 2020-21</p> <p>1st year 2nd year 3rd year</p>	<p>Rs. 0.42 Cr. Rs. 0.44 Cr. Rs. 0.38 Cr.</p> <p>Rs. 0.97 Cr. Rs. 1.17 Cr. Rs. 1.17 Cr.</p>
13	Special attention should be paid to environment and pollution	<p>In the proposed expansion also air emission control systems such as ESPs, Bagfilters, covered conveyers, dry fog system, dust suppression system, mechanical dust sweepers will be provided. Outlet dust emissions will be limited to 30 mg/Nm³ for sinter, Power plant, coke oven units and 10 mg/Nm³ for Blast furnace units. Interlocking systems will be provided at appropriate places and whenever the emissions exceed the stipulated standard, raw material feed to the unit will be stopped and there will be no production in the unit till APCS is rectified.</p>	2023-27	<p>Budget allocated for Environment, health & Safety measures within the plant premises. Rs.233 Cr</p>

	<p>Effluent will be treated in ETP and after ensuring compliance with the norms the treated effluent will be utilized for dust suppression in CHP & other areas, used for slag quenching, etc. Additional STPs will be provided for treatment of sanitary wastewater . Treated sewage will be utilized for greenbelt development. Zero Liquid discharge will be followed in expansion also.</p> <p>Regarding Solid waste disposal, efforts will be made to reuse/recycle the waste to the best possible extent and disposal of other wastes will be in accordance with the permitted procedures.</p> <p>189 Ha. Of Greenbelt is already been developed in the plant premises, which is about 39 % of the plant area i.e., 481.292 Ha. It is proposed to develop additional greenbelt over an extent of 3.5 Ha. with 10,000 nos. of plants.</p> <p>Periodic health checkup are being carried out in the nearby villages. This will be continued after expansion also under CSR.</p> <p>Primary Health Center will be upgraded in the plant along with ambulance facility</p>		
		2023-25	Rs. 0.1 Cr.
		Every year	Rs. 0.1 Cr.
		2023-25 2025-27	Rs. 0.3 Cr. Rs. 0.2 Cr.

25.10.15 The capital cost of the expansion project is Rs.8,560 Crores and the capital cost for environmental protection measures is proposed as Rs.236.51Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.17.5 Crores. The employment generation from the proposed expansion project is 2000 nos. direct & Indirect. The details of cost for environmental protection measures is as follows:

S.No	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
1	Air Emission Management		
	• Electro Static Precipitators (ESP) - PELLET	12.0	1.2
	• Electro Static Precipitators (ESP) - Sinter	40.0	4.0
	• Baghouse + Bag filter -Cement Grinding unit	12.0	1.2
	• Fume Extraction system with bag filters - EAF	8.0	0.8
	• Dust catcher followed by Venturi scrubber	10.0	1.0
	• other APCS & Conveyor systems	25.0	0.75
	• Stacks	42.00	0.35

S.No	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
	• Mechanical Dust sweepers	0.60	0.06
	• Water Sprinklers	1.0	0.01
2	Wastewater Management		
	· for upgradation of ETP	1	0.20
	· for New ETP	7	0.60
	· for STP	3.2	0.64
	· for Garland drains	5	0.05
	· for Settling ponds	1	0.06
3.	Water management (Reservoir, Cooling tower etc)	30	0.50
4.	Solid waste Management		
	· Fly Ash Handling & disposal	5	2.00
	· Solid waste Handling & Disposal	10	0.25
	· Hazardous waste storage & disposal	0.3	0.15
	· Municipal solid waste storage & disposal	0.1	0.05
5	Greenbelt development, Land scaping	1.0	0.30
6	Noise Management	2	0.88
7	RWH in Plant	1	0.05
8	Fire Safety Systems	10	0.50
9	Environmental Monitoring		
	· CEMS	2.8	0.01
	· CAAQMS	0.0	0.16
	· Environment Monitoring	1.5	0.38
	· Performance monitoring of APCS	0	0.025
10	Occupational Health & Safety		
	· Dispensary with Ambulance	0.5	0.125
	· Personal Protective Equipment's (PPEs)	1.2	1.20
	TOTAL	233.20	17.5
11	Addressal of Public Consultation concerns (Social infrastructural Development)	3.31	---
	GRAND TOTAL	236.51	17.5

25.10.16 Existing green belt has been developed in 189 Ha. area which is about 39% of the Existing plant area of 481.292 Ha. with total 4,87,264 Trees. Proposed additional greenbelt will be 3.5 Ha. which is about 1% of the total area. Thus total of 192.5 Ha. area (40% of total project area) will be developed as greenbelt. 10 m to 100 m wide greenbelt, consisting of at least 3 tiers around plant boundary has been developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species planted with a density of 2500 trees per hectare.

Additional 10,000 nos. of plants will be planted and nurtured in 2 years time upon receipt of E.C.

25.10.17 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified compliance report from CPCB

25.10.18 The Status of compliance of earlier EC was obtained from Regional Office, Raipur vide letter no. 5-187/2009 (ENV)/724 Dated 20-05-2022 in the name of M/s. Jayaswal Neco Industries Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Raipur vide letter dated 16.06.2022. MoEF&CC (RO), Raipur evaluated the same and has issued letter no.5-187/2009 (ENV)/1235 dated 03.02.2023. The details of the observations made by RO in the report dated 03-02-2023 along with its re-assessment / present status as furnished by the PP is given as below:

S. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /Response by PP
			EC date	Specific	General	
1	<p>Specific Condition (IX) A perspective plant for 100% utilization of slag should be within Six months for approval. The project authorities in their own interest should have a long-term tie-up with the user industry like cement.</p> <p>(J-11011 / 1194 – IA - II(I), dated 26-05-1995</p>	Huge Amount of slag was observed in different areas in the plant on the day of the monitoring. Project Authorities are directed to submit and ATR in this regard as per the stipulated condition and reason for the dumping of slag in open area to this office.	26-05-1995	(IX)	----	It was informed by PP that the accumulated slag is being sent to cement Industries and to clear the backlog along with the current generation and it will take around 12 months. PP has submitted dolochar utilization details specifying the balance quantity to this office. PP has also submitted slag generation and disposal quantity till January 2023 and balance quantity to this office.
2	<p>Specific Condition (VII) A greenbelt of adequate width and density should be developed in an area of 74 Ha. within and around the plant premises as per CPCB guidelines.</p>	Project Authorities are directed to submit the existing plant lay out plan in which it shows greenbelt was developed in (33%) to this office	14-05-2004	VII	----	PP has submitted layout plant of plant indicating the greenbelt area to this office

	(J-11011 / 22 / 2004-IA II(I), dated 14-05-2004					
3	Specific Condition (IV) The Suspended particulate emission from the Coke oven shall not exceed 50 mg/Nm ³ (J-11011/3/96-IA II(I), dated 27-12-2004	Project authorities are directed to submit monitoring reports with respect to suspended particulate matter during charging and coke pushing to this office.	27-12-2004	IV	----	PP has submitted in-house monitoring report of suspended particulate matter during charging and coke pushing to this office.
4	General Condition (X) The project Authorities should inform the Regional office as well as the ministry, the date of financial closure and final approval of the project (J-11011/22/2004-IA II(I), dated 14-05-2004	Project authorities are directed to submit the details of date of financial closure and final approval of the project to this office	14-05-2004	----	X	PP has submitted the details of financial closure to this office.
5	Specific condition (XII) A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal. (J-11011/809/2007-IA .II (I) dated 26.03.2009	Project authorities are directed to submit a time bound action plan to reduce solid waste ,and its proper utilization and disposal as per stipulated condition to this office	26.03.2009	XII	----	PP has submitted solid waste generation and its utilization and its disposal details for last 3 years to this office.
6	Specific condition (XIV) Efforts shall be made to use low grade lime, more fly ash and solid waste in the Cement manufacturing	Project authorities are directed to submit the details as per the stipulated condition to this office	08.09.2008	XIV	----	It was informed by PP that they have not installed Cement grinding unit in its plant premises and hence this conditions are not applicable to the unit.

	(J-11011 / 809 / 2007 - IA II (I) dated 08.09.2008)					
7	<p>General condition (XIV) Project authorities shall inform the Regional Office as well as the Ministry, the date of Financial closure and Final approval of project</p> <p>General condition (XIII) Project authorities shall inform the Regional Office as well as the Ministry, the date of Financial closure and Final approval of project</p> <p>(J-11011 / 809 / 2007-IA II (I) dated 08.09.2008 & J-11011/883/2008-IA .II(I), dated 26.03.2009</p>	Project authorities are directed to submit the details of date financial closure and final approval of the project to his office	08.09.2008 & 26.03.2009	----	XIV & XIII	PP has submitted the comprehensive details of financial closure of projects to this office
8	<p>Specific condition (XV) Proper utilization of Fly ash shall be submitted to reduce solid waste, its proper utilization and disposal.</p> <p>(J-11011 / 809 / 2007-IA II (I) dated 08.09.2008)</p>	Project authorities are directed to submit a copy of fly ash utilization certificated for the last 3 financial years to this office	08.09.2008	XV	----	It was observed on the day of monitoring that they have installed fly ash brick plant of capacity 3x200 TPD inside the plant premises to utilize the fly ash.
10	<p>Specific condition (VII & VIII) Prior permission for the drawl of 162 m³/hr water</p>	PP has submitted water balance sheet. However, there is no clarity of water requirement from Kharoon river. It has	26.03.2009	VII & VIII	----	PP has submitted the Water Allocation letter issued by Water Resource Department to this

	from Kharoon River from the concerned department should be obtained. (J-11011 / 883 / 2008-IA. II (I), dated 26.03.2009	been informed by PP that permission is available to draw water from The Kharoon river. Project authorities are directed to submit an approval copy for drawl of 162 m³/hr water from Kharoon river to this office				office.
11	General	On the day of monitoring, it has been observed that adjacent to plant premises one biomass based power plant and one DRI unit has been found installed authorities and are operational. Project authorities are directed to clarify whether the both plants have been installed in the same existing land (plant layout) in addition to that the relevant approvals obtained from different authorities for establishing this two units shall be submitted 10 this office.	---	----	----	It was informed by PP that the units were merged with JNIL by High Court Bombay order dated 13.11.2009. The copy of the order dated 13.11.2009 has been submitted to this office.

Deliberations by the Committee

25.10.19 The Committee noted the following:

1. The instant proposal is for expansion and Modernization of its existing Integrated Steel Plant from 1.2 MTPA to 2.4 MTPA. Further, PP has requested for Consolidated Environmental Clearance after having acquired the projects of M/s. Abhijeet Infrastructure Limited & M/s. Corporate Ispat Alloys Limited which were running on the basis of CTE/CTO.
2. The EAC noted that EC was initially granted vide letter No. J-11011/11/94-IA.II(I) dated 26.05.1995 for installation of blast furnace (600 m³) to produce 3,50,000 TPA of pig iron along with 8 MW CPP based on blast furnace gas in the name of Nagpurt Alloys Castings Ltd. Subsequently various amendments had been made in EC by adding capacities and additional facilities, the last amendment in EC was granted vide No. J-11011/883/2008-

IA-II (I) dated 26.03.2009. Two Units of DRI Plant and Associated power plant which were operating under CTO granted by the SPCB in the name of two group companies namely M/s. Abhijeet Infrastructure Limited & M/s. Corporate Ispat Alloys Limited who have installed 350 TPD DRI plant and 15 MW (7.5 MW AFBC + 7.5 MW WHRB) power plant and 500 TPD DRI plant and 15 MW (12 MW WHRB + 3 MW AFBC) power plant respectively in the year 2006 and 2007. The same have been demerged from those respective group companies and had been merged with Jayaswal Neco Industries Limited vide High Court order dated 13th November 2009. The EAC opined that PP shall submit the chronology of all the EC's and subsequent amendments obtained so far in a tabular format along with the details of the facilities and details of amendments obtained. PP shall also include the details of the facilities acquired from M/s. Abhijeet Infrastructure Limited & M/s. Corporate Ispat Alloys Limited in the same table.

3. The EAC noted that a canal which is passing through the southern boundary of the project site. PP shall submit the NOC from the Competent Authority in this regard and measures that will be undertaken for conservation of the canal.
4. Mandhar Branch Canal (0.3 km, East), Siltara Village Pond (0.35 km, North), Giroud village Pond (0.7 km, South), Dhaneli Village Pond (0.6 km, South), Mandhar Village Pond (0.5 km, SE) and Sankara Village Pond (0.15 km, W) also exist within the study area of the project site. The EAC is of the opinion that water bodies are required to be conserved. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.
5. The EAC deliberated on the implementation status of existing EC along with unit configuration and capacity of existing and proposed project submitted in the instant application and compared it with the details submitted in PFR at the time of ToR and observed that there is mismatching in details of some of the units such as Blast Furnace, Pellet Plant and Coke Oven Plant. The EAC is of opinion that PP shall revisit the information submitted in PFR (submitted at the time of TOR) and EIA/EMP (submitted in the instant application) and provide justification for the changes. PP shall also confirm the exact status of the facilities envisaged in the EC and the implementation status as on date and submit the revised information. The PP shall also submit an affidavit confirming that they have not made any violation pertaining to this project.
6. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that maximum values of PM₁₀ and PM_{2.5} are found to be on a higher side. Also the incremental GLC for SO₂ and NO₂ are also high. In this regard, the EAC is of the opinion PP shall revisit the GLC values of each parameter and also submit the mitigation measures that will be undertaken to improve the ambient air quality.
7. The EAC further noted that the maximum values of noise are also very high and PP shall submit the mitigation measures to minimise the same.

8. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during the public hearing. EAC is of the view that the PP has made a vague plan.
9. The EAC deliberated on the certified compliance report (CCR) of IRO dated 20.05.2022 wherein non-compliance / partial compliance were observed by the IRO. On the ATR dated 16.06.2022 submitted by project proponent, IRO has submitted a review report, however, closure report after site verification by IRO has not been obtained by the project proponent. The EAC advised PP/Consultant needs to obtain the closure report on the non-complied / partially complied conditions from IRO after site verification.
10. The Committee advised PP to also submit the CCR (along with closure report for non-compliances, if any) obtained from the SPCB pertaining to units acquired by the company and running on the basis of CTE/CTO.
11. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.
12. The project falls under Criticially Polluted area of Raipur District of Chhattisgarh. PP shall submit the compliance to the CEPI Guidelines as per CPCB recommendations.
13. PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.
14. PP needs rework on the proposed water requirement for the project and revise the water balance as deliberated during the meeting.
15. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be submitted.
16. The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.
17. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee

- 25.10.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 25.10.19 above. The proposal may be considered after submission of the requisite information

Consideration in Terms of Reference

Agenda No. 25.11

- 25.11 Expansion of Iron Ore Pelletization from 7.0 MTPA to 11.0 MTPA in existing plant area of 110 acre located at Survey No. 15A, Kancharapalem, Near Flyover, Scindia Road, Vishakhapatnam Urban, Vishakhapatnam district, Andhra Pradesh by M/s Arcelor Mittal Nippon Steel India Limited (Formerly Essar Steel India Limited)– Consideration of Consideration of TOR.**

[Proposal No. IA/AP/IND1/417707/2023; File No. IA-J-11011/131/2022-IA-II(IND-I)]

[Consultant: Team Labs and Consultants; Valid upto: 24.09.2024]

- 25.11.1 M/s. Arcelor Mittal Nippon Steel India Limited has made an application online vide proposal No. IA/AP/IND1/417707/2023 dated 06.03.2023 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) and 1(d) Thermal Power Plant under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 25.11.2 Name of the EIA consultant: M/s. Team Labs and Consultants [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/RA0242 valid till 24.09.2024, as on March 23, 2023].

Details submitted by Project proponent

- 25.11.3 The project of M/s. Arcelor Mittal Nippon Steel India Limited located at Sy. No. 15A, Kancharapalem Village, Near Flyover, Scindia Road, Vishakhapatnam Urban, Vishakhapatnam District, Andhra Pradesh is for expansion of Iron Ore Pellet Plant Manufacturing Unit (7 MTPA to 11 MTPA) by inclusion of Pelletisation Plant – III in an existing plant area of 110 acres with proposed expansion cost of 985 crores.
- 25.11.4 Environmental site settings:

S No	Particulars	Details submitted by the PP	Remarks																																																
i.	Total land	Plant: 44.5154 ha (110 acre) Stock Pile: 18.25ha (45.10 acre)	Land use: General Industrial use.																																																
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	This land is on lease with effective from 20.09.1991 from Visakhapatnam Port Trust along with change of land use for establishing pellet plant as well as CPP. The long term (30 Years) of land lease agreement with Visakhapatnam Port Trust (VPT) was expired in September'2021. Project Proponent have applied for renewal for another 30 years and the renewal is under process with VPT. AMNS India, Visakhapatnam paid Rs. 10,93,39,2709 towards land lease rent as demanded by VPT for the period 20.09.2021 to 30.04.2022.																																																	
iii.	Existence of habitation & involvement of R&R, if any.	Project Site: Nil. Study Area: <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Velampeta</td> <td>2.0 Km</td> <td>SE</td> </tr> <tr> <td>Gnanapuram</td> <td>0.9 Km</td> <td>E</td> </tr> <tr> <td>Kancharpalem</td> <td>0.9 Km</td> <td>NE</td> </tr> <tr> <td>Akkyapalem</td> <td>2.8 Km</td> <td>NE</td> </tr> <tr> <td>Gandhigram</td> <td>3.3 Km</td> <td>SW</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Velampeta	2.0 Km	SE	Gnanapuram	0.9 Km	E	Kancharpalem	0.9 Km	NE	Akkyapalem	2.8 Km	NE	Gandhigram	3.3 Km	SW	R&R not involved.																														
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iv.	Latitude and Longitude of all corners of the project site.	Coordinates of Plant Area <table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>17.721773</td> <td>83.271006</td> </tr> <tr> <td>B</td> <td>17.723110</td> <td>83.272962</td> </tr> <tr> <td>C</td> <td>17.237741</td> <td>83.275812</td> </tr> <tr> <td>D</td> <td>17.722076</td> <td>83.276864</td> </tr> <tr> <td>E</td> <td>17.716586</td> <td>83.277529</td> </tr> <tr> <td>F</td> <td>17.716586</td> <td>83.274075</td> </tr> <tr> <td>G</td> <td>17.716764</td> <td>83.272612</td> </tr> <tr> <td>H</td> <td>17.716796</td> <td>83.271592</td> </tr> </tbody> </table> Coordinates of Stock pile Area (Outside Plant area) <table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>17.712097</td> <td>83.276589</td> </tr> <tr> <td>B</td> <td>17.711712</td> <td>83.275379</td> </tr> <tr> <td>C</td> <td>17.711379</td> <td>83.275233</td> </tr> <tr> <td>D</td> <td>17.704044</td> <td>83.276112</td> </tr> <tr> <td>E</td> <td>17.703639</td> <td>83.276788</td> </tr> <tr> <td>F</td> <td>17.703669</td> <td>83.277232</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	17.721773	83.271006	B	17.723110	83.272962	C	17.237741	83.275812	D	17.722076	83.276864	E	17.716586	83.277529	F	17.716586	83.274075	G	17.716764	83.272612	H	17.716796	83.271592	Point	Latitude	Longitude	A	17.712097	83.276589	B	17.711712	83.275379	C	17.711379	83.275233	D	17.704044	83.276112	E	17.703639	83.276788	F	17.703669	83.277232	-
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v.	Elevation of the project site	4.7 m above mean sea level	-																																																
vi.	Involvement of Forest land if any.	Nil.	-																																																
vii.	Water body (Rivers, Lakes, Pond, Nala,	Project site: Nil	-																																																

	Natural Drainage, Canal etc.) exists within the project site as well as study area	Study area <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Bay of Bengal</td> <td>3.3 km</td> <td>E</td> </tr> <tr> <td>Narava Gedda</td> <td>5.3 km</td> <td>W</td> </tr> <tr> <td>Mehadri Gedda</td> <td>9.2 km</td> <td>NW</td> </tr> </tbody> </table>	Water body	Distance	Direction	Bay of Bengal	3.3 km	E	Narava Gedda	5.3 km	W	Mehadri Gedda	9.2 km	NW	
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viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Project Site- Nil Study Area: Kailasa konda Forest, (2.5 km) Kambala konda wildlife sanctuary (7.8 km) Yerra konda Rain Forest, (7.9km) Narrava Rain Forest (10.5km) Sitakonda Rain Forest (8.1km)	Satellite map shows Kambalakonda WLS ESZ boundary as per Gazette Notification dated 28 th April 2017 and project boundary. The ESZ boundary is 6 km away from the project boundary.												
ix.	CRZ Clearance	A. Environmental & CRZ clearance letter obtained by VPT for its various facilities vide letter F. No. 11-93/2012-IA-II dated 25 th May 2016. B. APCZMA CRZ map 2011 on which the AMNS stockpile area and plant are falling outside the CRZ boundary is submitted.	-												

25.11.5 M/s. Arcelor Mittal Nippon Steel India Limited (Formerly Essar Steel India Limited), has established initially 4 MTPA Iron Ore Pellet Plant during 1991 after obtaining Consent to Establish (CTE) from APPCB on 12/07/1991. There after the plant was commissioned after obtaining Consent to Operate (CTO) from APPCB on 30/10/1997. Later PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA under-II vide APPCB order No. 13060/PCB/C.Estt/RO-VSP/EE/2-2001-3719 dated 13.03.2001 envisaging to carry the beneficiated ore fines in slurry form from the beneficiation plant located at Kirandul, Chhattisgarh state. PP also established a Coal based captive power plant to generate Electricity of net 25 MW for captive use vide Consent to Establish dated 19/09/2003 & Consent to Operate dated 12/05/2006 from APPCB. As per the Ministry's circular dated 21/11/2006, the projects which are attracting the provisions of EIA, 2006 for which NOC issued before 14/09/2006 are not required to take Environment Clearance under the provisions of EIA Notification, 2006. In the instant case, the proponent has obtained CTE as well as CTO prior to 14/09/2006, hence EC has not been obtained by the PP under the provisions of EIA Notification, 2006. Thereafter, the company obtained consent for establishment for fuel change from Low Sulphur Heavy Stock (LSHS) to natural gas 0.4 MMSCMD (fuel oil as standby) vide Order No. 338/APPCB/CFE/RO-VSP/HO/2014, dt: 06.01.2021 valid till 05.01.2028. M/s. AMNS applied for environment clearance for change of fuel from Low Sulphur Heavy Stock (LSHS) to Natural Gas (Fuel Oil as stand by) for existing project and Ministry granted the same vide letter No. F.No. J-11011/131/2022-IA-II(IND-I), EC Identification No. EC22A008AP120408 dated 05.12.2022.

The latest Consent to Operate for the existing unit was accorded by APPCB vide Consent Order No: APPCB/VSP/VSP/111/CFO/HO/2019- dated 04/10/2019 and subsequent amendment on name change vide Order No: APPCB/VSP/VSP/111/CFO/HO/2020- 28/03/2020. The validity of CTO is up to valid up to 31/12/2024.

25.11.6 **Implementation status of the existing project based on CTE:**

S.no	Facilities	Units	As Per CTO dated 28/03/2020	Implementation status as on 28/03/2020	Production as per CTO
1	Pellet plant - 1	TPD	Pellet plant - 1	Under Operation	11,000 TPD
2	Pellet plant - 2	TPD	Pellet plant - 2	Under Operation	12,333 TPD
3	Captive Power Plant	MW	Captive Power Plant	Under Operation	25 MW (Net)

Implementation status of the existing EC dated 05.12.2022 w.r.t. change of fuel under Para 7(ii) of the EIA Notification, 2006:

- i. CTE obtained from APPCB vide order No. 338/APPCB/CFE/RO-VSP /HO/2014 dated 06.01.2021.
- ii. Term sheet agreement executed with GAIL for the supply of Natural gas
- iii. A request letter was written to Chairman and Managing Director of GAIL, New Delhi vide letter dated 21.12.2022 to expedite the delivery of NG
- iv. The Major Procurement like Structural steel, pipes, pressure reduction station and set of gas burners are completed
- v. PO is placed on M/s Emerson for Supply of PRS. Installation of the same is completed.
- vi. 16.85 Cr of PO (21.12.2021) is placed on M/s Hi-Mak for supply of gas burners for both the PP-I & PP-II. From 28.09.2022 dispatch is initiated, and 100 % material is reached to AMNS stores. Planning to install by Aug-2023
- vii. 600 meters of gas pipeline is laid inside the plant
- viii. PR is raised for Honeywell material and services which is a long leading item and expected date of material delivery is by June-23.
- ix. The expected date of project completion and start usage of NG will be in Q4 2023.

25.11.7 The unit configuration and capacity of existing and proposed project is given as below:

S. No	Description	Units	Existing/ Permitted	Proposed	Total after Expansion
1	Pelletisation Plant-I	MTPA	7.0	--	7.0
2	Pelletisation Plant-II				
3	Pelletisation Plant-III	MTPA	--	4.0	4.0
	Total	MTPA	7.0	4.0	11.0
4	Captive Power Plant (CPP)	MW	25	-----	25

25.11.8 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

Input	Unit	Quantity			Source of Raw Material	Distance in km	Mode of Transport
		Existing	Proposed	Total after expansion			
Iron Ore Fines	MTPA	70,41,641	4080000	11121641	Railway Rakes Kirandul, NMDC	267	Rail/ pipeline
Anthracite Coal	MTPA	99,050	49525	148575	Dubai	2894	Sea
Limestone	MTPA	1,12,000	56000	168000	Kandla, Gujarat	2077	Sea
Bentonite	MTPA	70,210	35105	105315	Ukraine, Russia	9364	Sea
Fuel Oil	KLPA	1,07,143	49920	157063	HPCL, Vizag Refinery	15	By Road
Mill Scale	MTPA	2,00,000	100000	300000	AMNS, Hazira	2100	Sea
Natural Gas	MMSCMD	0.4	0.18	0.58	GAIL/AP GDC	2	Pipeline

25.11.9 Existing water requirement is 10205 KLD. Water requirement after expansion is 13310 m³/day and same shall be obtained from Greater Visakhapatnam Municipal Corporation (GVMC) and slurry recycled water. The permission for drawl of water is obtained from Greater Visakhapatnam Municipal Corporation (GVMC) vide file No. 10935 dated 18.01.2022.

25.11.10 Total power requirement for existing and proposed Pellet Plant is 52 MW and out of which 25MW is obtained from the existing Captive Power Plant. Power requirement of remaining 27 MW is sourced from APEPDCL grid supply.

25.11.11 The capital cost of the project is Rs. 985 Crores and the capital cost for environmental protection measures is proposed as Rs 37 Crores. The annual recurring expenses mainly on repair; maintenance; consumable etc. will be about Rs. 2.61 Crores has been allocated for implementation of the Environmental Management Plan for proposed project. The employment generation from the proposed expansion is 760 nos.

25.11.12 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

25.11.13 Proposed Terms of Reference: [Baseline data was earlier collected during 19th October, 2021 to 18th January, 2022 to prepare EIA for change of fuel. It is now proposed to revalidate the data for one month during March 2023]

S.No.	Attribute	Parameters	Remark
1	Meteorology	Wind Speed and Direction, Temperature, Relative Humidity and Rainfall	Hourly recording at project site
2	Ambient air quality	RSPM(PM ₁₀), PM _{2.5} , SO ₂ , NO ₂ and CO	10 locations

S.No.	Attribute	Parameters	Remark
			24 hourly sampling twice a week for PM ₁₀ , PM _{2.5} , SO ₂ and NO ₂ . Other parameters and Heavy metals monitored once in a month.
3	Water quality	Physical, Chemical and Bacteriological Parameters as per APHA and IS standards	11 locations (GW-8, SW-3)
4	Noise levels	Noise levels in dB(A)	Once during study period at 10 locations
5	Soil characteristics	Soil profile, characteristics, soil type and texture, NKP value etc.	Once during study period at 6 locations
6	Socio-economic aspects	Socio-economic characteristics	Secondary data from Census-2011 and other agencies Primary data based on survey
7	Ecology	Existing terrestrial flora and fauna	Through field visit and secondary data
8	Land use	Land use for different categories (Satellite Imagery and Ground truthing)	Based on satellite data for core and buffer zone.

Written representations:

25.11.14 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 23.03.2023 through email dated 23.03.2023 and 26.03.2023 submitted the following information:

1. Plant layout in different layers showing 1) Internal Roads & Darins, 2) Proposed PP-3 area, 3) Greenbelt layout and 4) Contour layout.
2. Bid participation acknowledgement document and bid submission confirmation document. The lease renewal process with VPT is in process since October 2021. In addition, the present lease is valid till 31st March 2023 as the land lease rental paid to VPT till 31.03.2023 (Acknowledgement copy submitted).
3. Environmental & CRZ clearance letter obtained by VPT for its various facilities vide letter F. No. 11-93/2012-IA-II dated 25th May 2016.

Deliberation by the Committee

25.11.15 The Committee noted the following:

- i. The instant proposal is for expansion of Iron Ore Pellet Plant Manufacturing Unit (7 MTPA to 11 MTPA) by inclusion of Pelletisation Plant – III in an existing plant area.

- ii. The EAC noted that M/s. Arcelor Mittal Nippon Steel India Limited (Formerly Essar Steel India Limited), has established initially 4 MTPA Iron Ore Pellet Plant during 1991 after obtaining Consent to Establish (CTE) from APPCB on 12/07/1991. There after the plant was commissioned after obtaining Consent to Operate (CTO) from APPCB on 30/10/1997. Later PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA under-II vide APPCB order No. 13060/PCB/C.Estt/RO-VSP/EE/2-2001-3719 dated 13.03.2001 envisaging to carry the beneficiated ore fines in slurry form from the beneficiation plant located at Kirandul, Chhattisgarh state. PP also established a Coal based captive power plant to generate Electricity of net 25 MW for captive use vide Consent to Establish dated 19/09/2003 & Consent to Operate dated 12/05/2006 from APPCB. As per the Ministry's circular dated 21/11/2006, the projects which are attracting the provisions of EIA, 2006 for which NOC issued before 14/09/2006 are not required to take Environment Clearance under the provisions of EIA Notification, 2006. In the instant case, the proponent has obtained CTE as well as CTO prior to 14/09/2006, hence EC has not been obtained by the PP under the provisions of EIA Notification, 2006. Thereafter, the company obtained consent for establishment for fuel change from Low Sulphur Heavy Stock (LSHS) to natural gas 0.4 MMSCMD (fuel oil as standby) vide Order No. 338/APPCB/CFE/RO-VSP/HO/2014, dt: 06.01.2021 valid till 05.01.2028. M/s. AMNS applied for environment clearance for change of fuel from Low Sulphur Heavy Stock (LSHS) to Natural Gas (Fuel Oil as stand by) for existing project and Ministry granted the same vide letter No. F.No. J-11011/131/2022-IA-II(IND-I), EC Identification No. EC22A008AP120408 dated 05.12.2022. The latest Consent to Operate for the existing unit was accorded by APPCB vide Consent Order No: APPCB/VSP/VSP/111/CFO/HO/2019- dated 04/10/2019 and subsequent amendment on name change vide Order No: APPCB/VSP/VSP/111/CFO/HO/2020- 28/03/2020. The validity of CTO is up to valid up to 31/12/2024.
- iii. The unit has a total plant area of 44.5154 ha along with Stockpile area of 18.25 ha outside the plant area at Survey No. 15A of Kancharapalem, Vishakhapatnam, Andhra Pradesh. This land is on lease from Visakhapatnam Port Trust along with change of land use for establishing our pellet plant as well as CPP. The long term (30 Years) of land lease agreement with Visakhapatnam Port Trust (VPT) expired in September'2021. Project Proponent have applied for renewal for another 30 years and the renewal is under process with VPT. AMNS India, Visakhapatnam paid Rs. 1,61,70,709/- towards land lease rent as demanded by VPT for the period 20.09.2021 to 30.04.2022 and 01.04.2022 to 31.03.2023. The EAC opined that PP shall submit the lease documents in pursuance to MoEF&CC O.M. dated 7/10/2014 at the time of EC application.
- iv. The nearest habitations to plant are Gnanapuram (0.9 km, E), Kancharpalem (0.9 km, NE), Velampeta (2 km, SE), Akkyapalem (2.8 km, NE) and Gandhigram (3.3 km, SW) from the project site boundary.
- v. There is a school at a distance of 250 m from the project site. The EAC is of the opinion that appropriate mitigation measures shall be undertaken to minimise the impact of the project activities on the school.

- vi. Bay of Bengal (3.3 Km, E), Narava Gedda (5.3 km, W) and Mehadri Gedda (9.2 km, NW) exists within the study area. The EAC is of the opinion that water body shall not be disturbed. Mitigation measures w.r.t. safeguarding the water body shall be implemented.
- vii. The Water requirement after expansion is 13310 m³/day and same shall be obtained from Greater Visakhapatnam Municipal Corporation (GVMC) and slurry recycled water.
- viii. The Kambalakonda Wildlife Sanctuary falls in study area, which is located on the Kailashgiri Hills about 7.8 km north of the project site. The Kambalakonda Wildlife Sanctuary has been notified by MoEF&CC vide Draft Notification No. S.O. 62 (E) dated 7th January, 2016. Satellite map shows Kambalakonda WLS ESZ boundary as per gazette notification dated 28th April 2017 and project boundary. The ESZ boundary is 6 km away from the project boundary.
- ix. Environmental & CRZ clearance letter obtained by VPT for its various facilities vide letter F. No. 11-93/2012-IA-II dated 25th May 2016. APCZMA CRZ map 2011 on which the AMNS stockpile area and plant are falling outside the CRZ boundary is submitted.
- x. The PP has reported that baseline data was earlier collected during 19th October, 2021 to 18th January, 2022 to prepare EIA for change of fuel. It is now proposed to revalidate the data for one month during March 2023.
- xi. The Committee deliberated upon the written submission of the Project Proponent and found it satisfactory.

Recommendations of the Committee

25.11.16 After deliberations, the Committee **recommended** the project proposal **subject to uploading the written submission on Parivesh portal** for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**:

- (i) Project Proponent shall obtain renewal of lease from Visakhapatnam Port Trust and submit the lease documents in pursuance to MoEF&CC O.M. dated 7/10/2014 alongwith EIA/EMP report.
- (ii) The nearest habitations to plant are Gnanapuram (0.9 km, E), Kancharpalem (0.9 km, NE), Velampeta (2 km, SE), Akkyapalem (2.8 km, NE) and Gandhigram (3.3 km, SW) from the project site boundary. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.
- (iii) There is a school at a distance of 250 m from the project site. PP shall prepare and submit appropriate mitigation measures that will be undertaken to minimise the impact of the project activities on the school.
- (iv) Bay of Bengal (3.3 Km, E), Narava Gedda (5.3 km, W) and Mehadri Gedda (9.2 km, NW) exists within the study area. The PP shall include in the EIA/EMP report suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc. A robust and full proof Micro-Drainage Conservation scheme to protect the natural

- drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (v) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
 - (vi) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
 - (vii) PP shall revalidate earlier collected baseline data during October, 2021 to January, 2022 with one month fresh monitoring.
 - (viii) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyse the samples.
 - (ix) PP shall submit action plan for rainwater harvesting system.
 - (x) PP shall submit a letter from SPCB certifying that the proposed project do not fall under CPA/SPA.
 - (xi) Action plan for 100 % solid waste utilization shall be submitted.
 - (xii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. The PP shall prepare 3 different drawings. Drawing No 1 should include a layout with Road Networking, Traffic Chanalization, All Plant structures, Parking with a detailed area statement for each element, Indexing with proper color code and Naming at Bottom right corner. Drawing No 2 include a layout with road networking, Existing and proposed Green belt with calculations and indexing with proper color code along with nos of trees in existance and proposed trees. Drawing No 3 includes a layout with road networking, contour drawing and drainage disposal system and rain water harvesting system with calculations, Further the disposal of storm drain point with invert level. Drawing include indexing with color code for drainage pipe lines.
 - (xiii) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
 - (xiv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.
 - (xv) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the

project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

- (xvi) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.
- (xvii) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xviii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xix) Air Cooled condensers shall be used in the captive power plant.
- (xx) A Plan of Action for disposal of e-waste must be drawn up and implemented.
- (xxi) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
- (xxii) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site shall be submitted.

Agenda No. 24.12

25.12 Leather Manufacturing Unit with a capacity of 300 Hides per day by M/s Tasmiya Tannery Udyog, located at Village Mussa Shernagar, District Muzaffarnagar, Uttar Pradesh- Consideration of TOR.

[Proposal No. IA/UP/IND1/419902/2023; File No. IA-J-11011/406/2021-IA-II(IND-I)]

- 25.12.1 M/s Tasmiya Tannery Udyog has made an application online vide proposal no. IA/UP/IND1/419902/2023 dated 04.03.2023 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is outside the notified industrial boundary and listed at Sl. No. 4(f) Skin/hide processing including the tanning industry under Category "A" of the schedule of the EIA Notification, 2006 and be appraised at Central Level under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021.
- 25.12.2 Name of the EIA consultant: M/s. SBA Enviro Systems Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0198 valid till 24.05.2023, as on March 23, 2023].

Details submitted by Project proponent

25.12.3 The project of M/s. Tasmiya Tannery Udyog located in Mussa Shernagar village, Muzaffarnagar district, Uttar Pradesh is for regularisation of its existing Leather Manufacturing Unit with a capacity of 300 Hides per day under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021.

25.12.4 Environmental site settings:

S. No.	Particulars	Details	Remarks																											
i.	Total Land	1.316 ha (13161.25 Sq.m) (Private land).																												
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land is acquired by the Company. Agricultural land was transferred for industrial use. CLU regarding the same was obtained on 02.04.2012 before the construction of the project. CLU was revised recently on 25.02.2023.																												
iii.	Existence of habitation & involvement of R&R, if any.	No habitation in project site as the construction and implementation has been done. There is no involvement of R & R. Study Area - Bhikki (1.9 km, SE) Bhandura (2.4 km, NE) Humaunpur (3 km, S) Sikhreda (3.2 km, W)	-																											
iv.	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>POINT</th> <th>LATITUDE</th> <th>LONGITUDE</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>29°25'42.58"N</td> <td>77°45'52.48"E</td> </tr> <tr> <td>B</td> <td>29°25'43.37"N</td> <td>77°45'52.64"E</td> </tr> <tr> <td>C</td> <td>29°25'42.68"N</td> <td>77°45'54.03"E</td> </tr> <tr> <td>D</td> <td>29°25'41.71"N</td> <td>77°45'55.24"E</td> </tr> <tr> <td>E</td> <td>29°25'43.43"N</td> <td>77°45'57.18"E</td> </tr> <tr> <td>F</td> <td>29°25'41.41"N</td> <td>77°46'0.35"E</td> </tr> <tr> <td>G</td> <td>29°25'38.72"N</td> <td>77°45'57.62"E</td> </tr> <tr> <td>H</td> <td>29°25'40.72"N</td> <td>77°45'54.82"E</td> </tr> </tbody> </table>	POINT	LATITUDE	LONGITUDE	A	29°25'42.58"N	77°45'52.48"E	B	29°25'43.37"N	77°45'52.64"E	C	29°25'42.68"N	77°45'54.03"E	D	29°25'41.71"N	77°45'55.24"E	E	29°25'43.43"N	77°45'57.18"E	F	29°25'41.41"N	77°46'0.35"E	G	29°25'38.72"N	77°45'57.62"E	H	29°25'40.72"N	77°45'54.82"E	-
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v.	Elevation of the project site	247 m above mean sea level (AMSL).																												
vi.	Involvement of Forest land if any.	No forest land is involved in the project site.																												
vii.	Water body (Rivers, Lakes Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Nala at 5m from front side boundary wall of the project site.																												
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/	Nil. Study Area: Badsha forest – 7.2 km, NW																												

S. No.	Particulars	Details	Remarks
	elephant reserve etc. if any within the study area		

25.12.5 Tasmiya Tannery Udyog had obtained CTE from UPPCB vide letter Ref. No. F34965/C-3/NOC-150/Meerut/ 2013 dated 03.01.2014 for production of finished leather of 3000 nos. / day. Prior Environmental Clearance was not taken for the project before the commencement of construction and hence violated the provisions of EIA Notification, 2006 and Environment Protection Act, 1986.

25.12.6 The unit configuration and capacity of the existing project is given as below:

Sl. No.	Facility	Configuration & Capacity
1.	Leather Manufacturing Unit	300 hides per day

25.12.7 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

Sl. No.	Raw Material	Quantity	Source	Mode of Transport
1.	Raw Hides	300 hides per day	Slaughter Houses nearby	Road

25.12.8 The existing Water requirement is 180.8 m³/day which is obtained from ground water. The permission for drawl of ground water will be taken after grant of environment clearance.

25.12.9 The total power demand for the proposed project is estimated to be 300 KW as a connected load and 200 KW will be the operational load. Power will be received from Pashchimanchal Vidyut Vitran Nigam Limited.

25.12.10 The capital cost of the project including the environment management plan is Rs. 3.2 Crores. The employment generation from the project is 28 people.

25.12.11 **Summary of Violation under EIA, 2006:**

As project falls under category 4(f), (Leather/skin/hide processing industry) of Schedule of EIA Notification, 2006, Prior Environmental Clearance was not taken for the project before the commencement of construction and hence violated the provisions of EIA Notification, 2006 and Environment Protection Act, 1986. Further there was non-compliance of Central Government notified standards for discharge of environmental pollutants from industries & common effluent treatment plants, under EPA, 1986. Further, the unit was asked for permanent closure by UPPCB under the G.O. No.B-19004/WQM-II/CPCB/TPA/2019-20 dated 08.10.2021 and pay a fine of Rs. 87500 as per the court order. Considering the same, the unit has paid the fine on 26.10.2021 and it has been closed.

25.12.12 Proposed Terms of Reference:

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
A. Air			
a. Meteorological Parameters	1	1 hourly continuous sampling	For 12 weeks / 1 season
b. AAQ Parameters	8	Twice in a week of 24 hours sampling	For 12 weeks / 1 season
B. Noise	8	1 week sampling	For 12 weeks / 1 season
C. Water			
a. Surface Water	8	Once in the study period	For 12 weeks / 1 season
b. Ground Water	8	Once in the study period	For 12 weeks / 1 season
D. Land			
a. Soil Quality	4	Once in the study period	For 12 weeks / 1 season
b. Land Use	Study Area	Once in the study period	For 12 weeks / 1 season
E. Biological			
a. Aquatic	Study Area	Once in 12 weeks / 1 season	Stratified simple random sampling
b. Terrestrial	Study Area	Once in 12 weeks / 1 season	Stratified simple random sampling
F. Socio-economic Parameters	Study Area	Once in 12 weeks / 1 season	Stratified simple random sampling

Deliberation by the Committee

25.12.13 The Committee noted the following:

- i. The instant proposal is for regularisation of existing Leather Manufacturing Unit with a capacity of 300 Hides per day under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021.
- ii. Tasmiya Tannery Udyog had obtained CTE from UPPCB vide letter Ref. No. F34965/C-3/NOC-150/Meerut/ 2013 dated 03.01.2014 for production of finished leather of 3000 nios. / day. Prior Environmental Clearance was not taken for the project before the commencement of construction and hence violated the provisions of EIA Notification, 2006 and Environment Protection Act, 1986.
- iii. As project falls under category 4(f), (Leather/skin/hide processing industry) of Schedule of EIA Notification, 2006, Prior Environmental Clearance was not taken for the project before the commencement of construction and hence violated the provisions of EIA Notification, 2006 and Environment Protection Act, 1986. Further there was non-compliance of Central Government notified standards for discharge of environmental

pollutants from industries & common effluent treatment plants, under EPA, 1986. Further, the unit was asked for permanent closure by UPPCB under the G.O. No.B-19004/WQM-II/CPCB/TPA/2019-20 dated 08.10.2021 and pay a fine of Rs. 87500 as per the court order. Considering the same, the unit has paid the fine on 26.10.2021 and it has been closed.

- iv. The Committee deliberated on the submission of PP, and confirmed that this is a case of violation and shall be appraised under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021.
- v. Total project area is 1.316 ha (13161.25 Sq.m) which is private land and under the possession of the company. Agricultural land was transferred for industrial use. CLU regarding the same was obtained on 02.04.2012 before the construction of the project. CLU was revised recently on 25.02.2023.
- vi. The nearest habitations to plant are Bhikki (1.9 km, SE), Bhandura (2.4 km, NE), Humaunpur (3 km, S) and Sikhreda (3.2 km, W) from the project site boundary.
- vii. As reported, there is a nala at 5m from front side boundary wall of the project site in the study area.
- viii. The total water requirement is estimated as 180.8 m³/day, which is proposed to be obtained from the ground water.

Recommendations of the Committee

25.12.14 After deliberations, the Committee **recommended** the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**:

- (i) PP needs to comply all the points of TOR for Violation Project and follow SOP dated 07.07.2021 issued by the Ministry of Environment, Forest & Climate Change, for identification & handling of Violation cases under EIA notification 2006.
- (ii) The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC for the Unit which violated under the provision of the EIA Notification 2006.
- (iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
- (iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- (v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

- (vi) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
- (vii) The project proponent shall require to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the CPCB prior to the grant of EC as per SOP dated 07.07.2021. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- (viii) Project proponent shall implement penalty provisions i.e., 1% of project cost attributable to the expansion, incurred up to the date of filing of application along with the EIA/EMP report as contained in the paragraph 12 of the Standard Operating Procedure dated 7/07/2021 shall be complied with.
- (ix) The nearest habitations to plant are Bhikki (1.9 km, SE), Bhandura (2.4 km, NE), Humaunpur (3 km, S) and Sikhreda (3.2 km, W) from the project site boundary. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.
- (x) There is a nala at 5 m from front side boundary wall of the project site in the study area. The PP shall include in the EIA/EMP report suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc.
- (xi) Water required for the project will be 180.8 m³/day, which is proposed to be obtained from the ground water. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.
- (xii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (xiii) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xiv) PP shall submit action plan for rainwater harvesting system.
- (xv) PP shall submit waste water management plan including storm water drainage and effluent drains of/from the tanneries. Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (xvi) PP shall submit plan for treatment of chrome effluent released from tanneries. Design of the proposed continuous Chrome Recovery plant shall be approved by a Govt. institute such as NEERI, CLRI, IITs, NITs.
- (xvii) Action plan for management and disposal of solid waste generated during construction and operation shall be submitted.
- (xviii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

- (xix) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xx) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.
- (xxi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xxii) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.
- (xxiii) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
- (xxiv) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site shall be submitted.
- (xxv) Project Propent should keep track of best environmental practices in steel industry across the globe and try to incorporate those measures in the proposal.

Agenda No. 25.13

25.13 Manufacturing Unit for Stainless Steel Long Bars Round and in Profile shapes with capacity 72000 Ton/Annum by M/s AMBICA STEELS LIMITED, located at Plot No. 32, Loni Road Industrial Area, Mohan Nagar, Ghaziabad, Uttar Pradesh- Consideration of TOR.

[Proposal No. IA/UP/IND1/418616/2023; File No. IA-J-11011/87/2023-IA-II(IND-I)]

- 25.13.1 Consideration of the proposal was **deferred** as the Project Proponent did not send the complete documents to the EAC members as per the meeting agenda. The EAC requested the Ministry to place the proposal in the EAC meeting only after receiving further request/communication from project proponent.

The meeting ended with thanks to the Chair.

Standard ToR in line with Appendix III of the EIA, 2006.
applicable to Proposals Under Industry-1 Sector

Preliminary requirements:

- i. EIA/EMP report cover page shall consist of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
- ii. Besides, following points shall be compiled as per QCI/NABET norms:
 - a. Disclaimer by the EIA consultant.
 - b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
 - c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
 - d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
 - e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report**Executive Summary**

- i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
- ii. Point wise compliance to the ToR issued by MoEF&CC.
- iii. Executive Summary
 - I. Introduction
 - i. Name of the project along with applicable schedule and category as per EIA, 2006.
 - ii. Location and accessibility
 - II. Project description
 - i. Resource requirements (Land; water; fuel; manpower)
 - ii. Operational activity
 - iii. Key pollution concerns
 - III. Baseline Environment Studies
 - i. Ambient air quality
 - ii. Ambient Noise quality
 - iii. Traffic study
 - iv. Surface water quality
 - v. Ground water quality
 - vi. Soil quality
 - vii. Biological Environment
 - viii. Land use
 - ix. Socio-economic environment
 - IV. Anticipated impacts

- i. Impact on ambient air quality
 - ii. Impact on ambient noise quality
 - iii. Impact on road and traffic
 - iv. Impact on surface water resource and quality
 - v. Impact on ground water resource and quality
 - vi. Impact on terrestrial and aquatic habitat
 - vii. Impact on socio-economic environment
- V. Alternative analysis
- VI. Environmental Monitoring program
 - i. Ambient air, noise, water and soil quality
 - ii. Emission and discharge from the plant
 - iii. Green belt
 - iv. Social parameters
- VII. Additional studies
 - i. Risk assessment
 - ii. Public consultation
 - iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020
- VIII. Project benefits
- IX. Environment management plan
 - i. Air quality management plan
 - ii. Noise quality management plan
 - iii. Solid and hazardous waste management plan
 - iv. Effluent management plan
 - v. Storm water management plan
 - vi. Occupational health and safety management plan
 - vii. Green belt development plan
 - viii. Socio-economic management plan
 - ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

2. Project description

A. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility
- iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

- iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
- v. Environment settings of the site and its surrounding along with map.
- vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
- vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
- viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
- ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
- x. Type of land, land use of the project site needs to be submitted.
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
- xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.
- xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

B. Forest and wildlife related issues (if applicable):

- i. Status of Forest Clearance for the use of forest land shall be submitted.
- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

- i. Products with capacities in **Tons per Annum** for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
- xiv. Brief on present status of compliance (Expansion/modernization proposals)
 - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
 - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
 - c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

- d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

- i. Study period
- ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological <ul style="list-style-type: none"> • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate 	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> • IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants <ul style="list-style-type: none"> • PM_{2.5} • PM₁₀ • SO₂ • NO_x • CO • HC 	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none"> • Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> Other parameters relevant to the project and topography of the area 			<p>parameters should be related to the characteristic properties of the parameters.</p> <ul style="list-style-type: none"> The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
<ul style="list-style-type: none"> Hourly equivalent noise levels 	At least 8-12 locations	As per CPCB norms	-
C. Water			

Attributes	Sampling		Remarks
	Network	Frequency	
<p>Parameters for water quality</p> <ul style="list-style-type: none"> pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity Total nitrogen, total phosphorus, DO, BOD, COD, Phenol Heavy metals Total coliforms, faecal coliforms Phyto-plankton Zoo-plankton Microalgae/microalgal bloom 	<p>Samples for water quality should be collected and analyzed as per:</p> <ul style="list-style-type: none"> IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association. 		
<p>For River Bodies</p> <ul style="list-style-type: none"> Total Carbon pH Dissolved Oxygen Biological Oxygen Demand Free NH₄ Boron Sodium Absorption Ratio Electrical Conductivity TDS 	<ul style="list-style-type: none"> Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies 	<ul style="list-style-type: none"> Yield of water sources to be measured during critical season Standard methodology for collection of surface water (BIS standards) 	
<p>For Ground Water</p>	<ul style="list-style-type: none"> Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included. 		
<p>D. Traffic Study</p>			
<ul style="list-style-type: none"> Type of vehicles Frequency of vehicles for transportation of materials 	-		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> Additional traffic due to proposed project Parking arrangement 			
E. Land Environment			
Soil <ul style="list-style-type: none"> Particle size distribution Texture pH Electrical conductivity Cation exchange capacity Alkali metals Sodium Absorption Ratio (SAR) Permeability Water holding capacity Porosity 			Soil samples be collected as per BIS specifications
Land use/Landscape <ul style="list-style-type: none"> Location code Total project area Topography Drainage (natural) Cultivated, forest, plantations, water bodies, roads and settlements 			-
E. Biological Environment			
Aquatic <ul style="list-style-type: none"> Primary productivity Aquatic weeds Enumeration of phyto plankton, zoo plankton and benthos Fisheries Diversity indices Trophic levels Rare and endangered species Marine Parks/ Sanctuaries/ closed 			<ul style="list-style-type: none"> Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. For forest studies, direction of wind should be considered while selecting forests.

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) Terrestrial <ul style="list-style-type: none"> • Vegetation-species list, economic importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes 			<ul style="list-style-type: none"> • Secondary data to collect from Government offices, NGOs, published literature.
F. Socio-economic			
<ul style="list-style-type: none"> • Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education 			<ul style="list-style-type: none"> • Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

- i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

- ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
 - Details of stack emissions from the existing as well as proposed activity.
 - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
 - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
- iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
- iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
- v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase
 - b. Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- a. Construction phase

- b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase

5. Analysis of Alternatives (Technology & Site)

- i. No project scenario
- ii. Site alternative
- iii. Technical and social concerns
- iv. Conclusion

6. Environmental Monitoring Program

- i. Details of the Environment Management Cell
- ii. Performance monitoring schedule for all pollution control devices shall be furnished.
- iii. Corporate Environment Policy
 - a. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
 - c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.
 - d. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

iv. Action plan for **post-project environment monitoring matrix:**

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

7. Additional Studies

- i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.
- iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
- iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
- v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S N o	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

viii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits

- i. Environment benefits
- ii. Social infrastructure

- iii. Employment and business opportunity
- iv. Other tangible benefits

9. Environment Cost Benefit Analysis

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

- i. Air quality management plan
- ii. Noise quality management plan
- iii. Action plan for hazardous waste management
- iv. Action plan for solid waste management
- v. Action plan for e-waste management.
- vi. Action plan for plastic waste management.
- vii. Action plan for construction and demolition waste management.
- viii. Effluent management plan
- ix. Storm water management plan
- x. Rain water harvesting plan
- xi. Plan for maximum usage of waste water/treated water in the Unit
- xii. Occupational health and safety management plan
- xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
- xiv. Socio-economic management plan
- xv. Wildlife conservation plan (In case of presence of schedule I species)
- xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. PM (PM₁₀ and PM_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material specially in slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.

4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.

4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOX will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, etc within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.

5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.
6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM₁₀ to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.

2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.
4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Executive Summary

Executive summary of the report in about 8/10 pages incorporating the following:

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora/fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

List of the Expert Appraisal Committee (Industry-1) members participated during VC meeting

S. No.	Name	Position	21.03.2023	22.03.2023	23.03.2023
1.	Shri Rajive Kumar	Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
2.	Dr. Dipankar Shome	Vice Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
3.	Dr. S. Ranganathan	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
4.	Dr. Ranjit Prasad	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
5.	Dr. S. K. Singh	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
6.	Dr. Tejaswini Ananthkumar	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
7.	Dr. Hemant Sahasrabuddhe	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
8.	Dr. Jai Krishna Pandey	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
9.	Dr. E V R Raju	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	<i>Absent</i>	<i>Absent</i>	<i>Absent</i>
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH))	Member	<i>Absent</i>	<i>Absent</i>	<i>Absent</i>
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	<i>Present</i>	<i>Present</i>	<i>Present</i>
MoEFCC					
15.	Dr R P Rastogi	Scientist C	<i>Present</i>	<i>Present</i>	<i>Present</i>
16.	Dr Sandeepan BS	Scientist B	<i>Present</i>	<i>Present</i>	<i>Present</i>

Approval of EAC Chairman

Email**Additional Director MoEFCC Dr R B LAL**

Fwd: Compiled Draft minutes of the 25th EAC Meeting held on March 21-23, 2023 for approval of the Chairman EAC-Regarding

From : chairman eac ind 1 Fri, Mar 31, 2023 04:23 PM
<chairman.eac.ind.1@gmail.com>
Subject : Fwd: Compiled Draft minutes of the 25th EAC Meeting held on March 21-23, 2023 for approval of the Chairman EAC-Regarding
To : Additional Director MoEFCC Dr R B LAL
<rb.lal@nic.in>

----- Forwarded message -----

From: **Rajive Kumar** <chairman.eac.ind.1@gmail.com>
Date: Fri, Mar 31, 2023 at 4:03 PM

Subject: Re: Compiled Draft minutes of the 25th EAC Meeting held on March 21-23, 2023 for approval of the Chairman EAC-Regarding

To: Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Cc: <rajivekumar1983@gmail.com>, ranganathan metals <ranganathan.metals@gmail.com>, <ranjitnitj@gmail.com>, <rajuevr60@gmail.com>, <sksinghdce@gmail.com>, <dshome61@gmail.com>, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, <raghuharihar@yahoo.co.in>, Sanjay Bist <sanjay.bist@imd.gov.in>, Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>, RAJESH PRASAD RASTOGI <rp.rastogi@gov.in>, sandeepan <sandeepan.bs@gov.in>

Dear Dr.Lal,
The draft minutes are approved.

Kindly do the needful.

Best wishes
Rajive Kumar
Chairman-EAC-Industry-1
