

Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Industry-1 Sector)

Date of zero draft MoM sent to Chairman: 14/02/2022

Approval by Chairman: 17/02/2022

Uploading on PARIVESH: 17/02/2022

Summary record of the Fifty Third (53rd) meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 10-11th February, 2022 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) Notification, 2006.

The Fifty Third (53rd) meeting of the Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environment Appraisal of Industry-1 Sector Projects was held on **10-11th February, 2022** in the Ministry of Environment, Forest and Climate Change (MoEF&CC) through **video conferencing** in view of the ongoing Corona Virus Disease (Covid-19) pandemic. The list of EAC attendees is as follows:

S. No.	Name	Position	10/02/2022	11/02/2022
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present
2.	Dr. M. K. Gupta, Director, CPPRI.	Member	Present	Present
3.	<i>Dr. Siddharth Singh</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
4.	Dr. Jagdish Kishwan	Member	Present	Present
5.	Dr. Tejaswini Ananth Kumar	Member	Present	<i>Absent</i>
6.	Dr. G.V. Subramanyam	Member	Present	Present
7.	Shri. Ashok Upadhyaya	Member	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present
9.	<i>Dr. Sanjay Deshmukh</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
10.	Prof. S.K. Singh	Member	Present	Present
11.	<i>Dr. R. Gopichandran</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
12.	Shri Jagannadha Rao Avasarala	Member	Present	Present
13.	Shri. J.S. Kamyotra	Member	Present	Present
Co-opted expert from EAC – Infra 1 sector for appraisal of item no. 53.13				
14.	Dr. Manoranjan Hota	Member	--	Present
Officials from MoEF&CC				
15.	Shri. Sundar Ramanathan	Member Secretary	Present	Present
16.	Dr. Sandeepan B.S.	Scientist 'B'	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 52nd meeting held during 27th, 28th and 31st January, 2022 were confirmed by the EAC as already uploaded on PARIVESH.

10th February, 2022

53.1 Expansion of Cement Plant through increase in clinker production capacity from 1.7 to 3.2 MTPA, cement production from 1.8 to 4.0 MTPA (by installation of new unit (Unit III) & power from 18 to 33 MW (by installation of 15 MW WHRB Power Plant) by **M/s. Deccan Cements Limited** located at Mahankaligudem Village, Palakeedu Mandal, **Suryapet District, Telangana** [Online Proposal No. IA/TG/IND/253087/2016; File no: J-11011/572/2007-IA.II (I)] – **Environment Clearance – regarding.**

53.1.1 M/s. Deccan Cements Limited (DCL) has made an online application vide proposal no. IA/TG/IND/253087/2016 dated 02/02/2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement Plants and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central level.

53.1.2 The representatives of the project proponent along with their EIA consultant – M/s. B. S. Envi-Tech Pvt. Limited participated in the meeting. During the meeting, the project proponent informed that limestone requirement for the instant expansion project will be met from their captive Bhavanipuram Limestone Mine (Mine lease no.3) located adjacent to the plant site. Further, informed that a case was filed in Hon’ble National Green Tribunal (NGT) – South Zone, Chennai by Vakkanti Koteswar Rao in Original Application no. 33 of 2016, claiming that the mining lease area falls nearer to a Historical place i.e. Janpahad Darga and prayed for cancellation of lease. The case was disposed on 18/11/2021 by the Hon’ble NGT in favour of M/s Deccan Cements Limited. The Judgement of Hon’ble NGT was again challenged by the same Petitioner in Hon’ble High Court of Telangana State through a Writ Petition No. 32902 dated 2021. The case was listed for hearing on 02/02/2022 wherein the Hon’ble Court has directed that **“Till the next date of hearing, the respondent no 14 (M/s. Deccan Cement Limited) is restrained from carrying out any mining activity in respect of mining lease no 3. However, it shall be open to the respondent no 14 to file an appropriate application before this court in case they complete all formalities for proceeding ahead with the mining activities. List on 27/04/2022”.**

Observations of the Committee

53.1.3 The Committee noted the following:

- i. The limestone requirement for the proposed expansion project will be met from their captive Bhavanipuram Limestone Mine only. No alternative has been indicated by the proponent.
- ii. The Hon’ble High Court of Telangana vide its Order dated 2/02/2022 restrained the project proponent from carrying out any mining activity in their captive Bhavanipuram Limestone Mine (Mining Lease No. 3)

Recommendations of the Committee

53.1.4 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form and submit the revised application as per the provisions of EIA Notification, 2006 based on the outcome of the Writ Petition No. 32902 dated 2021 pending before the Hon’ble High Court of Telangana.

53.2 Expansion in Clinker Production Capacity from 5.28 MTPA to 6.6 MTPA, Power generation capacity of WHRS from 30 MW to 50 MW, DG Set from 500 KVA to 2500 KVA and reduction in Captive Power Plant Capacity from 80 MW to 40 MW in phased manner without change in Cement Production capacity of 6.0 MTPA by **M/s. Jaykaycem (Central) Limited** located at Villages Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil Amanganj, **District Panna, Madhya Pradesh** [Online Proposal No. IA/MP/IND/254132/2022; File no: J-11011/224/2016-IA.II (I)] – **Environment Clearance under para 7 (ii) of EIA Notification, 2006 – regarding.**

53.2.1 M/s. Jaykaycem (Central) Limited has made an online application vide proposal no. IA/MP/IND/254132/2022 dated 02/02/2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of para 7(ii) of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement Plants and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central level.

Details submitted by Project proponent

53.2.2 The project of M/s. Jaykaycem (Central) Ltd is located in Villages Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil Amanganj, District Panna, Madhya Pradesh is for expansion in Clinker Production Capacity from 5. 5.28 MTPA to 6.6 MTPA, Power generation capacity of WHRS from 30 MW to 50 MW, DG Set from 500 KVA to 2500 KVA and reduction in Captive Power Plant Capacity from 80 MW to 40 MW in phased manner without change in Cement Production capacity of 6.0 MTPA.

53.2.3 Environmental site settings:

S No	Particulars	Details	Remarks
i.	Total land	123.25 ha [Private Land] As per Environmental Clearance; total project area is mentioned to be as 199.84 ha but as per the discussion held during 22 nd Meeting of REAC-I, the Plant area has been reduced from 199.84 ha to 123.25 ha due to non-availability of the continuous area for which Revised Plant Layout had been submitted to REAC-I. Accordingly, 123.25 ha area has been considered for the plant. Hence, no change in the land requirement for the proposed expansion project.	Land use: Industrial Land
ii.	Land acquisition details as per MoEF&CC OM dated 7/10/2014	Expansion project is proposed in existing plant area of 123.25 ha. Total land of 123.25 ha is under the possession of the company. Thus, no additional land is required for proposed expansion.	No R&R is required.

S No	Particulars	Details			Remarks		
iii.	Existence of habitation & involvement of R&R, if any.	Plant Site: NIL.			-		
		Study Area:					
		Habitation	Distance (km)	Direction			
		Kakra	3.0	NNW			
		Saptai	2.5	NW			
		Majhgawan	1.5	WNW			
		Purwa	1.0	West			
		Boda	2.0	West			
		Tighra	3.0	South			
		Hardua	0.5	South			
Sotipura	0.5	South					
Puraina	1.0	South					
iv.	Latitude and Longitude of all the corners of project site	Point	Latitude	Longitude	Point	Latitude	Longitude
		1.	24°19'49.73"N	79°57'31.84"E	43.	24°19'19.99"N	79°58'25.27"E
		2.	24°19'51.98"N	79°57'32.78"E	44.	24°19'20.93"N	79°58'21.59"E
		3.	24°19'51.86"N	79°57'33.88"E	45.	24°19'24.94"N	79°58'21.96"E
		4.	24°19'54.87"N	79°57'34.68"E	46.	24°19'25.29"N	79°58'18.69"E
		5.	24°19'52.54"N	79°57'50.11"E	47.	24°19'26.09"N	79°58'18.45"E
		6.	24°19'50.17"N	79°57'49.79"E	48.	24°19'28.41"N	79°58'12.47"E
		7.	24°19'49.41"N	79°57'56.57"E	49.	24°19'29.59"N	79°58'12.28"E
		8.	24°19'47.71"N	79°57'56.44"E	50.	24°19'30.79"N	79°58'8.24"E
		9.	24°19'47.71"N	79°57'58.52"E	51.	24°19'32.03"N	79°58'8.99"E
		10.	24°19'49.29"N	79°57'59.03"E	52.	24°19'33.27"N	79°58'3.14"E
		11.	24°19'46.72"N	79°58'23.88"E	53.	24°19'30.81"N	79°58'2.69"E
		12.	24°19'47.62"N	79°58'24.18"E	54.	24°19'31.56"N	79°57'55.15"E
		13.	24°19'47.00"N	79°58'28.48"E	55.	24°19'31.01"N	79°57'53.58"E
		14.	24°19'54.09"N	79°58'29.98"E	56.	24°19'28.77"N	79°57'53.12"E
		15.	24°19'53.80"N	79°58'32.68"E	57.	24°19'28.69"N	79°57'50.32"E
		16.	24°19'53.07"N	79°58'35.67"E	58.	24°19'29.27"N	79°57'47.17"E
		17.	24°19'50.91"N	79°58'35.35"E	59.	24°19'26.69"N	79°57'46.72"E
		18.	24°19'49.99"N	79°58'39.70"E	60.	24°19'26.31"N	79°57'46.37"E
		19.	24°19'53.34"N	79°58'41.45"E	61.	24°19'25.30"N	79°57'46.32"E
		20.	24°19'52.74"N	79°58'44.01"E	62.	24°19'25.80"N	79°57'42.27"E
		21.	24°19'49.67"N	79°58'42.92"E	63.	24°19'22.26"N	79°57'40.96"E
		22.	24°19'49.23"N	79°58'44.10"E	64.	24°19'22.67"N	79°57'38.33"E
		23.	24°19'48.63"N	79°58'43.88"E	65.	24°19'26.35"N	79°57'38.58"E
		24.	24°19'46.94"N	79°58'42.54"E	66.	24°19'27.08"N	79°57'35.84"E
		25.	24°19'46.30"N	79°58'44.51"E	67.	24°19'26.40"N	79°57'35.90"E
		26.	24°19'43.73"N	79°58'43.28"E	68.	24°19'26.49"N	79°57'34.21"E
		27.	24°19'43.06"N	79°58'44.31"E	69.	24°19'31.37"N	79°57'35.80"E
		28.	24°19'35.47"N	79°58'41.36"E	70.	24°19'31.65"N	79°57'36.79"E
		29.	24°19'34.63"N	79°58'43.18"E	71.	24°19'32.18"N	79°57'36.67"E
		30.	24°19'33.40"N	79°58'42.79"E	72.	24°19'34.70"N	79°57'37.81"E
		31.	24°19'31.17"N	79°58'49.70"E	73.	24°19'34.71"N	79°57'38.34"E
		32.	24°19'29.81"N	79°58'49.04"E	74.	24°19'37.68"N	79°57'38.84"E
		33.	24°19'32.11"N	79°58'42.49"E	75.	24°19'37.98"N	79°57'39.36"E
		34.	24°19'30.59"N	79°58'42.24"E	76.	24°19'41.13"N	79°57'39.17"E
		35.	24°19'31.35"N	79°58'39.93"E	77.	24°19'41.30"N	79°57'38.46"E
		36.	24°19'31.19"N	79°58'38.65"E	78.	24°19'45.18"N	79°57'38.95"E
		37.	24°19'32.34"N	79°58'34.86"E	79.	24°19'45.53"N	79°57'38.49"E
		38.	24°19'31.60"N	79°58'34.19"E	80.	24°19'48.94"N	79°57'39.44"E
		39.	24°19'31.56"N	79°58'32.48"E	81.	24°19'49.42"N	79°57'36.47"E
		40.	24°19'26.54"N	79°58'30.89"E	82.	24°19'48.56"N	79°57'36.07"E
		41.	24°19'23.59"N	79°58'26.65"E	83.	24°19'48.91"N	79°57'32.31"E

S No	Particulars	Details				Remarks																														
		42.	24°19'23.47"N	79°58'26.06"E	84.		24°19'49.80"N	79°57'31.90"E																												
v.	Elevation of the project site	308 - 318 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	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>Ken River</td> <td>1.0 km</td> <td>SW</td> </tr> <tr> <td>Jonaro Nala</td> <td>3.0 km</td> <td>South</td> </tr> <tr> <td>Sonar River</td> <td>5.5 km</td> <td>WNW</td> </tr> <tr> <td>Bateha Nala</td> <td>6.5 km</td> <td>NW</td> </tr> <tr> <td>Karhwani Nala</td> <td>7.0 km</td> <td>NNE</td> </tr> <tr> <td>Dhabeha Nala</td> <td>7.5 km</td> <td>SSW</td> </tr> <tr> <td>Jamunha Nala</td> <td>8.0 km</td> <td>SSW</td> </tr> <tr> <td>Patne River</td> <td>8.5 km</td> <td>ESE</td> </tr> <tr> <td>Mirhasan River</td> <td>9.5 km</td> <td>NNW</td> </tr> </tbody> </table>				Water Body	Distance	Direction	Ken River	1.0 km	SW	Jonaro Nala	3.0 km	South	Sonar River	5.5 km	WNW	Bateha Nala	6.5 km	NW	Karhwani Nala	7.0 km	NNE	Dhabeha Nala	7.5 km	SSW	Jamunha Nala	8.0 km	SSW	Patne River	8.5 km	ESE	Mirhasan River	9.5 km	NNW	-
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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	NIL. List of Reserved Forest within 10 km radius study area: Pagra RF (7.5 km in WSW)				-																														

53.2.4 The existing project was accorded Environmental Clearance *vide* Ministry letter no. IA-J-11011/224/2016-IA.II (I) dated 14/10/2020. Consent to Establish has been issued by Madhya Pradesh Pollution Control Board (MPPCB) *vide* Consent no. CTE-52637 dated 17/12/2020 which is valid up to 30/09/2025.

53.2.5 Implementation status of the EC dated 14/10/2020 and proposed changes under para 7(ii) of EIA Notification, 2006

S No	Facilities	Unit	As per EC dated 14/10/2020	Proposed changes under para 7(ii)	Final capacity after amendment	Remarks
1	Clinker	MTPA	5.28 (2x2.64)	Increase by 1.32	6.6 (2x3.3)	Expansion of Clinker production capacity by 25%
2	Cement	MTPA	6.0 (2x3)	--	6.0 (2x3)	No change
3	CPP	MW	80 (2x40)	Reduced by 40	40	Dropping the CPP Capacity by 50% and

S No	Facilities	Unit	As per EC dated 14/10/2020	Proposed changes under para 7(ii)	Final capacity after amendment	Remarks
						resulting in decrease in water consumption by 650 KLD and Wastewater generation by 312 KLD.
4	WHRS	MW	30	Increase by 20	50	Increasing the Power generation capacity of WHRS by 20 MW.
5	D.G. Set	kVA	500	Increase by 2000	2500 (500/250/125 KVA)	Increasing the Power generation capacity of D.G. Set by 2000 KVA. D.G. Set will be used as emergency back-up.

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

S No	Facility	Capacity as per EC dated 14/10/2020	Proposed changes under para 7(ii)	Final Capacity after Amendment
1	Clinker	5.28 MTPA (2x2.64 MTPA)	Increase by 1.32 MTPA	6.6 MTPA (2x3.3 MTPA)
2	Cement	6.0 MTPA (2x3 MTPA)	--	6.0 MTPA (2x3 MTPA)
3	CPP	80 MW (2x40)	Reduced by 40 MW	40 MW
4	WHRS	30 MW	Increase by 20 MW	50 MW
5	D.G. Set	500 KVA	Increase by 2000 KVA	2500 KVA (500/250/125 KVA)

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

S No	Raw Material	Basis	Quantity (Million TPA)			Source and Distance	Mode of Transportation
			Existing	Additional	Total		
1.	Limestone	1.50 T/T of Clinker	7.92	1.98	9.90	Kakra Panna Mine and Koni-Simariya Mine (Captive Limestone Mines) / Adjacent to the plant 0.74 Million TPA will be sourced from open market.	Through conveyor belts*/Road
2.	Iron Ore	0.03 T/T of Clinker	0.158	0.040	0.198	Private Mines from Katni & Satna District (100-200 KMs)	Road
3.	Bauxite	0.015 T/T of	0.079	0.020	0.099	Private mines from Katni & nearby	Road

S No	Raw Material	Basis	Quantity (Million TPA)			Source and Distance	Mode of Transportation
			Existing	Additional	Total		
		Clinker				districts (150-300 KMs)	
4.	Gypsum-India & Imported (Mineral, Synthetic, Chemical & Industrial waste/HW)	0.07 T/T of Cement	0.42	0	0.42	Sy. Gypsum from sister units at Rajasthan (~750 Kms), Mineral / Chemical / Marine from Rajasthan & Gujrat (1000 kms approx.) Imported Gypsum from Iran/ Oman /UAE	Road for domestic Marine + road for imported
5.	Fly ash & Pond Ash	0.35 T/T of Cement	2.1	0	2.1	Singroli (375 KM approx & Laltipur area (250 KM approx..))	Road
6.	Slag	0.5 T/T of Cement	3.0	0	3.0	Nearby Steel Plants (Within 500 Kms)	Road

*Transportation will be done by road till installation of OLBC

Fuel Requirement, Source & Transportation

S No	Name of Fuel	Basis	Quantity (Million TPA)			Source & Distance	Mode of Transportation
			Existing	Additional	Total		
Cement Plant							
1.	Indian & imported Coal (100% basis)	0.18 T Coal/ T of Clinker	0.95	0.24	1.19	Indigenous Coal: South Eastern Coal Field (SECL) 500 KM approximate Imported Coal: US / Saudi / Indonesian / Australian	Road for domestic Marine + road for imported
2.	Indian & imported Petcoke (100% basis)	0.10 T Petcoke/ T of Clinker)	0.53	0.13	0.66	Indian Petcoke: RIL / IOCL / BOREL around 1000 KMs on an average Imported Petcoke: US / Aus. / Saudi Petcoke	Road for domestic Marine + road for imported
3	Alternative Fuel to replace the fossil fuel	-	Minimum 3%			Pyrolysis oil from Jabalpur ~ 200 Km. Carbon Black from Jabalpur ~ 200 Km Shredded Plastic Waste from Rewa ~. 180 Km. Rice Husk from Katni - ~ 90 Km Other AFR such as industrial solid and liquid waste, RDF /	Road

S No	Name of Fuel	Basis	Quantity (Million TPA)			Source & Distance	Mode of Transportation
			Existing	Additional	Total		
						MSW, ETP Sludges, Bio mass / Agro waste (in both Kiln and Boiler) etc. will also be used based on availability & techno-economy feasibility	
4	Indian & imported Coal	(100% basis)	0.4	(-) 0.2	0.2	Indigenous Coal: South Eastern Coal Field (SECL) 500 KM approximate Imported Coal: US / Saudi / Indonesian / Australian etc.	Road for domestic Marine + road for imported

53.2.8 **Existing Water requirement** is 5295 KLD. **The water requirement after amendment** will be 5125 KLD; out of which 195 KLD water will be sourced from ground for domestic purpose and remaining 4930 KLD will be sourced from mine sump water, rain water collection in plant area and from river water. Permission for abstraction of ground water of 195 KLD has been obtained from CGWA vide letter dated 30/01/2020 which was valid up to 31/01/2022, PP applied for renewal on 01/11/2021 and permission is under process. Permission for allocation of 0.79 mcm (2164 KLD) surface water from Kane River has been obtained from Water Resources Department, Govt. of Madhya Pradesh vide letter no. dated 30/05/2020.

Note: The company hereby also requests for the grant of permission for 2140 KLD groundwater withdrawal for the industrial purpose in Integrated Cement Plant (Phase - 1) till the installation of pipelines for extraction of Surface water from Ken River and development of Mine Pit (For two Years). CGWA NOC will be obtained for the same.

53.2.9 Existing power requirement is 86 MW which was proposed to be obtained from CPP and WHRS. The power requirement after amendment will be 72 MW which will be obtained from CPP & WHRS.

53.2.10 **Baseline Environmental Studies (From post project monitoring data)**

Period	June to December, 2021
AAQ parameters at 04 locations	PM _{2.5} - 30.2 to 40.5 µg/m ³ PM ₁₀ - 50.1 to 65.2 µg/m ³ SO ₂ - 6.5 to 8.8 µg/m ³ NO ₂ - 10.0 to 17.0 µg/m ³
AAQ modelling (Incremental GLC)	PM - 5.86 µg/m ³ (at 1.0 km in SW) SO ₂ - 5.64 µg/m ³ (at 1.0 km in SW) NO _x - 5.31 µg/m ³ (at 1.0 km in SW)
Ground water quality	pH – 7.18 to 7.95 TDS – 514 to 1033 mg/l Fluoride – 0.67 to 0.85 mg/l Electrical Conductivity – 788 to 1560 µS/cm
Surface water quality	pH – 7.31 TDS – 243 mg/l

Period	June to December, 2021																				
	Fluoride – 0.56 mg/l Electrical Conductivity – 352 µS/cm																				
Noise levels	Noise Level During Day Time – 48.6 to 62.4 Leq dB (A) Noise Level During Night time – 41.0 to 52.4 Leq dB (A)																				
Traffic assessment study findings	<ul style="list-style-type: none"> ▪ Traffic Study has been conducted at SH - 49 which adjacent to plant site in SE direction. ▪ Transportation of raw material fuel & finished product will be done 100 % by road. ▪ Existing PCU is 234.33 PCU/hr on SH-49 and existing level of service (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>SH-49</td> <td>234.33</td> <td>1400</td> <td>0.17</td> <td>A (Excellent)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ▪ PCU load after proposed project will be 234.33 (Existing) + 37.62 (Additional) PCU/hr and level of service (LOS) will be: <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>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH-49</td> <td>271.95</td> <td>1400</td> <td>0.19</td> <td>A (Excellent)</td> </tr> </tbody> </table> <p>*Note: Capacity as per IRC -. 106 - 1990 Guide line for capacity for roads Conclusion: The level of service will be excellent after including additional traffic due to proposed project.</p>	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	SH-49	234.33	1400	0.17	A (Excellent)	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	SH-49	271.95	1400	0.19	A (Excellent)
Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS																	
SH-49	234.33	1400	0.17	A (Excellent)																	
Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS																	
SH-49	271.95	1400	0.19	A (Excellent)																	
Flora and fauna	Wildlife Conservation Plan for six Schedule - I i.e. Black buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat and Indian Pangolin has been approved with a budget of Rs. 289.9 lakhs from PPCF Office (Wildlife), Bhopal vide letter dated 13/12/2019.																				

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

S No	Type of Waste	Waste	Source	Quantity generated	Mode of Treatment / Disposal
1.	SW	Ash	CPP	240 TPD	Will be used in cement manufacturing
2.	SW	Bottom/ Bed Ash	CPP	30 TPD	
3.	SW	Sludge	STP	20 TPA	Used as manure for plantation
4.	SW	MSW	Kitchen waste/	70 KG/day	MSW will be disposed of through Nagar Palika, Panna
5.	HW	Used Oil /	Different	140	Existing hazardous waste

S No	Type of Waste	Waste	Source	Quantity generated	Mode of Treatment / Disposal
		Waste Oil	sections of Plant maintenance	KLPA	generated will be sold to CPCB/SPCB authorized recycler.
6.	HW	Batteries	Different sections of Plant maintenance	400 no.s /annum	To be sold to CPCB, RSPCB, authorized venders

53.2.12 Public Consultation (Held as part of EC dated 14/10/2020)

Details of advertisement given	14/06/2019
Date of public consultation	17/07/2019
Venue	Panchayat Bhawan Parisar, Village Devra, Tehsil Amanganj, District: Panna (MP)
Presiding Officer	ADM Panna
Major issues raised	<ul style="list-style-type: none"> • Environment, • Pollution, • Greenbelt Development, • CSR activities,

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

Proposed Budget for Corporate Environmental Responsibility (CER)					
S No	Activities	3 Year Plan for CER (in Rs. Lakhs)			
		1 st	2 nd	3 rd	Total
1	Health (Health, Checkup, Camp, Sports etc.)	82	122	152	356
2	Education (Books, Bags, Stationary etc)	80	104	150	334
3	Sanitation (Domestic Water, Toilets etc)	128	182	220	530
4	Skill Development (Training Centre etc)	50	85	90	225
5	Infrastructure (Road, Community Centre etc)	212	310	388	910
6	Other Locals Needs	150	178	234	562
7	Greenery Development Nearby Area	40	53	70	163
	Grand Total	742	1034	1304	3080
Rs 5586.95 Crore for Cement Plant + Rs. 572.58 Crores for mining project, Total cost = 6159.53 Crores (0.5% of total cost) = 30.80 crores (the amount Rs. 30.80 Crores will be incurred after commencing of commercial production)					

53.2.13 Existing capital cost of the project was Rs. 5586.95 Crores. After proposed amendment the capital cost will remain same as Rs. 5586.95 Crores & capital cost for environmental protection measures is Rs. 232.86 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion - Rs. 11.92 Crores per annum. The employment generation will remain same after proposed amendment as 820 persons.

53.2.14 Existing Greenbelt has been developed in 1.64 ha which is about 1.33% of the total project

area of 123.25 ha with total sapling of 4109 Trees and Additional plantation has been proposed on 39.03 ha which is remaining 31.67% of the total plant area. Thus, the total 40.67 ha area (about 33% of total project area of 123.25 ha) will be developed under green belt area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary has been proposed to 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.

53.2.15 It has been reported that following will be resource consumption after the proposed change:

Particulars	As per EC dated 14 th October, 2020	After Proposed change under Para 7(ii)	% Increase/ decrease
Land	199.84 ha	123.25 ha	Decrease by 38.33 % (Contiguous land of 123.25 ha is sufficient for proposed project)
Water	5295 KLD	5125 KLD	Decreased by 3.0%
Power	86 MW	72 MW	Decreased by 16.28%
Raw materials	Limestone - 7.92 MTPA Iron Ore – 0.158 MTPA Bauxite – 0.079 MTPA Gypsum – 0.42 MTPA Fly ash & Pond ash – 2.1 MTPA Slag – 3.0 MTPA	Limestone- 9.90 MTPA Iron Ore- 0.198 MTPA Bauxite- 0.099 MTPA Gypsum – 0.42 MTPA Fly ash & Pond ash – 2.1 MTPA Slag – 3.0 MTPA	25% increase 25% increase 25% increase No change No change No change
Products	Clinker - 5.28 MTPA Cement - 6.0 MTPA CPP - 80 MW WHRS - 30 MW	Clinker - 6.6 MTPA Cement - 6.0 MTPA CPP - 40 MW WHRS - 50MW	25% increase No change 50% decrease 66.67% increase

53.2.16 Pollution load assessment:

Particulars	As per EC dated 14 th Oct., 2020	After Proposed change under Para 7(ii)	% Increase/ decrease
Air	PM - 195.46 kg/hr	PM – 146.52 kg/hr	decrease by 25%
	SOx – 570.33 kg/hr	Sox – 393.22 kg/hr	decrease by 31 %
	NOx – 1342.15 kg/hr	NOx – 1319.40 kg/hr	decrease by 1.7%
Domestic waste water	155 KLD	155 KLD	No change
Industrial Effluent	1014 KLD	802 KLD	21% decrease
Solid & Hazardous Waste	Ash - 240 TPD	Ash - 120 TPD	No change
	Sludge – 20 TPA	Sludge- 20 TPA	No change
	MSW - 70 kg/day	MSW - 70 kg/day	No change
	Waste/Used oil: 140 KLA	Waste/Used oil: 140 KLA	No change
	Bottom/Bed Ash: 30 TPD	Bottom/Bed Ash: 30 TPD	No change
Traffic Load	Existing: 1650 Trucks	After Proposed expansion: 1008 trucks	Decrease in 39% traffic

53.2.17 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.

53.2.18 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd [S. No. 44, List of ACOs with their Certificate no. NABET/EIA/2023/RA 0186 and valid up to 07/02/2023; Rev. 18, January 05, 2022].

Certified Compliance report from Regional Office

53.2.19 The Status of compliance of earlier EC was obtained from Integrated Regional Office (IRO), Bhopal vide letter No. 5-1/2022(Env)/037 dated 28/12/2021 in the name of M/s. Jaykaycem (Central) Limited. The Action taken report regarding the partially/ non - compliance condition was submitted to IRO, Jaipur on 29/01/2022. Detail of observation made by IRO and ATR submitted by PP is given as below:

S No	Non-compliances details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
1.	Only surface water shall be used and ground water abstraction shall not be permitted	the stipulated condition is considered as Partial complied till the needful amendment in the Environment Clearance w.r.t. ground water abstraction for domestic purpose	14/10/2020	(iv)		PP is in process to submit the proposal for expansion of above said integrated cement plant to the MoEF&CC. Now, as per your kind instruction, Amendment in Specific Condition No. iv” is also included in the proposal. As soon as, amendment will be done, copy of the same will be submitted to MoEF&CC.
2.	“The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectorial 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	It is noted that the project is in construction phase. The PP agreed to comply the stipulated condition. However, the AAQ Monitoring report during construction phase is yet to be furnished by the PP. In view of the information furnished by the PP and as per site observations noted above, the stipulated condition is considered as	14/10/2020		X (iv)	AAQ monitoring have been conducted by MoEF&CC Recognized lab namely M/s. SGS Enviro Services Private Limited, Jaipur on 05 & 06/01/2022. Reports have been submitted.

S No	Non-compliances details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
		partial complied till submission of test report.				

Observations of the Committee

53.2.20 The Committee noted the following:

- i. M/s. Jaykaycem (Central) Ltd obtained EC from MoEF&CC IA-J-11011/224/2016-IA.II (I) dated 14/10/2020 for Integrated Clinker/ Cement manufacturing unit (5.28 MTPA Clinker; 6.0 MTPA Cement and Captive Power Plant including waste heat recovery plant power generation through WHRB (80 MW FBC; 30 MW WHRB).
- ii. Instant proposal is for seeking EC under para 7(ii) for increased production of Clinker from 5.28 MTPA to 6.6 MTPA by increase the Kiln capacity from 8000 TPD to 10000 TPD, power generation from 30 MW to 50 MW and reduced CPP capacity from 80 MW to 40 MW without change in overall capacity of 6.0 MTPA cement production.
- iii. The proposed amendment is proposed within existing project area of 123.25 ha.
- iv. PP submitted that water consumption will be reduced from 5295 KLD to 5125 KLD and there will be overall reduction in pollution load as given at para no. 53.2.16 above.
- v. The Committee noted that the addendum EIA/EMP report is found to be in order reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data reported and incremental GLC due to the proposed project are within NAAQ standards.
- vi. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of all the existing EC and found its satisfactory.
- vii. The EAC has carried out requisite due diligence of the instant proposal and considered the same under para 7(ii) (a) of the EIA Notification, 2006 and dispense with the requirement of conducting fresh public consultation in light of the observations mentioned above.

Recommendations of the Committee

53.2.21 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the para 7(ii) of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated cement plants based on project specific requirements:

A. Specific Conditions

- i. Particulate matter emissions from cement mill stacks shall be less than 20 mg/Nm³ and for CPP less than 30 mg/Nm³.
- ii. Air cooled condensers shall be used in the captive power plant in place of water-cooled system.

- iii. Project proponent is permitted to abstract up to 2140 KLD ground water, for next 15 months from the date of issue of the Environment Clearance after obtaining requisite permission from the concerned Competent Authority. Thereafter, water from mine pit and Ken river shall be used and ground water abstraction is not permitted.
- iv. Total water requirement after expansion shall not exceed 5125 KLD. Water shall be sourced from ground (195 KLD) and 4930 KLD from mine pit and Ken river.
- v. 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.
- vi. Green belt shall be developed in 33% of the total area all along the entire periphery of the area with a density of 2500 trees per ha. This shall include development of green belt with a width of 20 m within the project site towards the mining area and Hardua village located at 0.5km from the project site.
- 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. Slip roads shall be provided at the gates and along crossings on main roads.
- ix. 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.
- x. 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.
- xi. The recommendations of the approved Site-Specific Conservation Plan / 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.
- xii. Limestone from mines to the cement plant shall be transported through Overhead Conveyor Belt within a period of two years from date of issue of the Environment Clearance.
- xiii. Hot air dryer shall not be installed. Flue gases of preheater shall be used to dry the slag/bottom ash.

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 (CEMS) at process stacks to monitor stack emission as well as 4 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 labs recognized under Environment (Protection) Act, 1986.
 - iii. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
 - iv. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;
 - v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;
 - vi. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, and 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; 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 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.

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.

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.
- 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 report 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, NO_x (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. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

53.3 Proposed Installation of Iron Ore Beneficiation Plant (2x1.0 MTPA), Pelletization Plant (2x0.6 MTPA), Sponge Iron Plant (2x350 TPD DRI Kilns), Induction Furnaces (3x20 T) with matching LRF & CCM, Strip Rolling Mill (0.2 MTPA), ERW Pipe Manufacturing Unit (0.15 MTPA), Pipe Galvanizing Unit (0.15 MTPA) along with 40 MW Capacity Captive Power Plant (16 MW WHRB based + 24 MW CFBC based) by **M/s. CPCBL Steels and Power Private Limited** located at Village Newra, Mouza Takhatpur, **District Bilaspur, Chhattisgarh** [Online Proposal No. IA/CG/IND/250313/2022; File no: IA-J-11011/28/2022-IA-II(IND-I)] – **Prescribing of Terms of Reference– regarding.**

53.3.1 M/s. CPCBL Steels and Power Private Limited has made an online application vide proposal no IA/CG/IND/250313/2022 dated 21/01/2022 along with 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 schedule no. 2(b) Mineral Beneficiation, 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.

Details submitted by Project proponent

53.3.2 The project of M/s. CPCBL Steels and Power Private Limited is located at Village Newra, Mouza Takhatpur, District Bilaspur, Chhattisgarh for Proposed Installation of Iron Ore Beneficiation Plant (2x1.0 MTPA), Pelletization Plant (2x0.6 MTPA), Sponge Iron Plant (2x350 TPD DRI Kilns), Induction Furnaces (3x20 T) with matching LRF & CCM, Strip Rolling Mill (0.2 MTPA), ERW Pipe Manufacturing Unit (0.15 MTPA), Pipe Galvanizing Unit (0.15 MTPA) along with 40 MW Capacity Captive Power Plant (16 MW WHRB based + 24 MW CFBC based).

53.3.3 Environmental site settings:

S No	Particulars	Details	Remarks																																				
i.	Total Land	34.00 ha (84.03 acres) (Private land)	Land Use:																																				
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land is already acquired by the Company																																					
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>Nevra Village</td> <td>0.30 km</td> <td>NNE</td> </tr> <tr> <td>Ghonghadih Village</td> <td>1.15 km</td> <td>SW</td> </tr> <tr> <td>Ganyari Village</td> <td>1.0 km</td> <td>SSE</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Nevra Village	0.30 km	NNE	Ghonghadih Village	1.15 km	SW	Ganyari Village	1.0 km	SSE	No R&R issue involved in the proposed project																								
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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>22°12'17.02"N</td> <td>82° 1'29.01"E</td> </tr> <tr> <td>B</td> <td>22°12'21.02"N</td> <td>82° 1'14.36"E</td> </tr> <tr> <td>C</td> <td>22°12'24.29"N</td> <td>82° 1'12.50"E</td> </tr> <tr> <td>D</td> <td>22°12'34.52"N</td> <td>82° 1'15.03"E</td> </tr> <tr> <td>E</td> <td>22°12'37.89"N</td> <td>82° 1'25.16"E</td> </tr> <tr> <td>F</td> <td>22°12'35.93"N</td> <td>82° 1'34.90"E</td> </tr> <tr> <td>G</td> <td>22°12'32.48"N</td> <td>82° 1'47.23"E</td> </tr> <tr> <td>H</td> <td>22°12'26.83"N</td> <td>82° 1'49.19"E</td> </tr> <tr> <td>I</td> <td>22°12'25.34"N</td> <td>82° 1'37.50"E</td> </tr> <tr> <td>J</td> <td>22°12'28.91"N</td> <td>82° 1'36.36"E</td> </tr> <tr> <td>K</td> <td>22°12'21.83"N</td> <td>82° 1'32.48"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	22°12'17.02"N	82° 1'29.01"E	B	22°12'21.02"N	82° 1'14.36"E	C	22°12'24.29"N	82° 1'12.50"E	D	22°12'34.52"N	82° 1'15.03"E	E	22°12'37.89"N	82° 1'25.16"E	F	22°12'35.93"N	82° 1'34.90"E	G	22°12'32.48"N	82° 1'47.23"E	H	22°12'26.83"N	82° 1'49.19"E	I	22°12'25.34"N	82° 1'37.50"E	J	22°12'28.91"N	82° 1'36.36"E	K	22°12'21.83"N	82° 1'32.48"E	
Point	Latitude	Longitude																																					
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E	22°12'37.89"N	82° 1'25.16"E																																					
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G	22°12'32.48"N	82° 1'47.23"E																																					
H	22°12'26.83"N	82° 1'49.19"E																																					
I	22°12'25.34"N	82° 1'37.50"E																																					
J	22°12'28.91"N	82° 1'36.36"E																																					
K	22°12'21.83"N	82° 1'32.48"E																																					
v.	Elevation of the project site	294 m above mean sea level																																					
vi.	Involvement of Forest land if any.	No forest land is involved in the project site																																					

S No	Particulars	Details	Remarks									
vii.	Water body (Rivers, Lakes Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>Project Site: A canal is passing through 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>Arpa River</td> <td>6.0 km</td> <td>East</td> </tr> <tr> <td>Ghongha Nadi</td> <td>2.7 km</td> <td>SW</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Arpa River	6.0 km	East	Ghongha Nadi	2.7 km	SW	
Water Body	Distance	Direction										
Arpa River	6.0 km	East										
Ghongha Nadi	2.7 km	SW										
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	NIL										

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

S No	Name of the Facility	Project Configuration	Capacity (TPA)	Product
1	Iron Ore Beneficiation Plant	2x1.0 MTPA	20,00,000	Iron Ore Concentrate
2	Pelletization Plant	2x0.6 MTPA	12,00,000	Iron Ore Pellet
3	Sponge Iron Plant	2x350 TPD	2,10,000	Sponge Iron
4	Induction Furnaces with matching LRF & CCM	3x20T	2,00,000	Billets
5	Strip Rolling Mill	1x600 TPD	2,00,000	Steel Sheet
6	ERW pipe manufacturing unit	1x500 TPD	1,50,000	Electric Resistance Welded pipes
7	Pipe galvanizing unit	1x500 TPD	1,50,000	GI Pipe
8	Captive Power Plant	40 MW (16 MW WHRB based & 24 MW CFBC based)	40 MW	40 MW Power

53.3.5 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	Quantity (In TPA)	Source	Mode Of Transport
Iron Ore Beneficiation Unit (2.0 MTPA):				
1.	Iron Ore	20,00,000	Barbil, Orissa	Rail
Pelletization Unit (1.2 MTPA):				
1.	Iron Ore Concentrate	12,00,000	In-House	-
2.	Bentonite	40,000	Local Market	Road

S No	Raw Material	Quantity (In TPA)	Source	Mode Of Transport
3.	Limestone	26,000	Local Market	Road
Sponge Iron Plant (2x350 TPD):				
1.	Iron Pellet	3,50,000	In-House	-
2.	Coal	2,40,000	Imported	Rail / Road
3.	Dolomite	12,000	Local Market	Road
Induction Furnace (3x20 ton):				
1.	Sponge Iron	1,20,000	In-House	-
2.	Scraps	30,000	Local Market	Road
3.	Pig Iron	30,000	Local Market	Road
4.	Ferro Alloys	1,600	Local Market	Road
Captive Power Plant (24 MW based on CFBC boiler):				
1.	Domestic Coal	1,80,000	Local Market	Road
2.	Dolochar	72,000	In-House	-

53.3.6 The water requirement for the proposed project is estimated as 3105 m³/day which will be met from Water supply system of Water Resources Department, Kota through River Arpa.

53.3.7 The power requirement for the proposed project is estimated as 40 MW which will be sourced from 40 MW capacity Captive Power Plant and Chhattisgarh State Power Distribution Company Limited (CSPDCL).

53.3.8 The capital cost of the project is Rs. 629 Crores. The employment generation from the proposed project during operational phase will be 930 persons.

53.3.9 Proposed Terms of Reference (Baseline data collection period: October 2021 to December 2021):

Attributes	Sampling		Parameters
	No. of Stations	Frequency	
A. Air			
a. Meteorological Parameters	1	Continuous on 24-hourly basis	Temperature, Relative Humidity, Atmospheric Pressure, Wind Speed, Wind Direction, Rainfall.
b. AAQ Parameters	8	Twice in a week	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ & CO
B. Noise	10	Once (Day & Night)	L _{eq} [dB (A)]
C. Water			
a. Surface Water	10	Once in the study period	Physical, Chemical & Biological
b. Ground Water	9	Once in the study period	Physical, Chemical & Biological
D. Land			
a. Soil Quality	4	Once in the study	Physical and

Attributes	Sampling		Parameters
	No. of Stations	Frequency	
		period	Chemical
b. Land Use	Study Area	Once in the study period	Land use using Satellite Imagery
E. Biological			
a. Aquatic	Study Area	Once in the study period	Enlist local Flora and Fauna
b. Terrestrial	Study Area	Once in the study period	Enlist local Flora and Fauna
F. Socio-economic Parameters	Study Area	Based on Latest census data and sample survey	Population & Infrastructure Facilities

53.3.10 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.

53.3.11 Name of the EIA consultant: M/s. Envirotech East Pvt. Ltd. [S No 178, NABET Certificate/ Ext. letter no. NABET/EIA/2124/SA 0145 valid up to 12/09/2022; Rev. 18, January 05, 2022].

Observations of the Committee

53.3.12 The Committee noted the following:

- i. A 29 m wide irrigation canal passes through the selected project site, having a total length of 600 m within the plant premises. Two bridges shall be constructed over the canal for connectivity of both plots. No permission is available to PP from Irrigation Authorities for the connectivity arrangement proposed by them.
- ii. No details have been made available with respect to tailings management and disposal.
- iii. Project proponent has not provided the information regarding direct hot charging.
- iv. Details regarding acid pickling and galvanizing are missing in the pre-feasibility report.
- v. Project proponent has not provided the Fuel and fume extraction system to be used in pellet plant.
- vi. Project proponent has not provided detail of Rain water Harvesting (RWH) system.

Recommendations of the Committee

53.3.13 In view of the foregoing and after deliberations, the Committee recommended that proposal to be returned in its present form to address the technical shortcomings enumerated at para no. 53.3.12 and submit the revised application as per the provisions of EIA Notification, 2006.

53.4 Screening Cum Beneficiation Plant (750 TPH of 4 lines each) along with 2200 TPH Downhill Conveyor System and Loading Facilities in 195.537 Ha. Area (Forest area of 100.077 Ha. and 95.46 Ha. of revenue land) located at outside the Mine Lease area of Bailadila Iron Ore Deposit-4 (646.596 Ha.) by M/s. NMDC – CMDC Limited at Village Bhansi, Tehsil Bachel, District Dantewada, Chhattisgarh [Online Proposal No.

IA/CG/IND/251437/2022; File no: IA-J-11011/23/2022-IA-II(IND-I)] – **Prescribing of Terms of Reference– regarding.**

53.4.1 M/s. NMDC – CMDC Limited has made an online application vide proposal no IA/CG/IND/251437/2022 dated 14/01/2022 along with 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 schedule no. 2(b) Mineral Beneficiation under Category “A” of the schedule of the EIA Notification, 2006 and appraised at central level.

Details submitted by Project proponent

53.4.2 The project of M/s. NMDC – CMDC Limited will be Village Bhansi, Tehsil Bachel, District Dantewada, Chhattisgarh for Screening Cum Beneficiation Plant (750 TPH of 4 lines each) along with 2200 TPH Downhill Conveyor System and Loading Facilities.

53.4.3 Environmental site settings:

S No	Particulars	Details	Remarks															
i.	Total Land	195.537 ha [Forest area: 100.077 ha. and Revenue land: 95.46 ha]	Land use: Forest land and Revenue land.															
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	Total land of 195.537 ha is yet to be acquired. Out of 195.537 ha, 100.077 ha is forest land 100.077 ha (falling outside ML area). for obtaining Forest clearance. 95.46 Ha. of revenue land is required at Bhansi for establishment of ancillary facilities.	For the diversion of Forest land, PP has submitted application vide proposal no. FP/CG/MIN/146694/2021 on 04/10/2021.															
iii.	Existence of habitation & involvement of R&R, if any.	Project Site: About 95.46 Ha. of revenue land is required at Bhansi for establishment of ancillary facilities. R&R Policy as per “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation And Resettlement Act, 2013” will Be Prepared In Respect Of The Project Affected Families (PAFs). Study Area:																
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v.	Elevation of the project site	<p>Screening cum Beneficiation Plant- 580 m AMSL Loading Plant- 532 m AMSL Tailing pond- 500 m AMSL</p>																																					
vi.	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>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sankini nallah</td> <td>3.0 km</td> <td>West</td> </tr> <tr> <td>Nerli Nalla</td> <td>4.5 km</td> <td>East</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Sankini nallah	3.0 km	West	Nerli Nalla	4.5 km	East																												
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vii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	NIL																																					

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

S No	Plant Equipment/ Facility	Configuration	Capacity	Remarks
1.	Downhill Conveyor System	7.55 km	2200 TPH	--
2.	Screening Plant with Plant with Beneficiation Facilities	4x750 TPH	3000 TPH	--
3.	Tertiary Crushing	2x800 TPH	1600 TPH	--
4.	Loading and Stacking Facilities	1	3000 TPH	--
5.	Slimes Disposal into Tailing Pond along with Slurry Pipeline	1	68.130 ha. Capacity: 9.50 million tons (40 lakh m ³)	--

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

Raw Material	Quantity required per annum	Source	Distance from site (Kms)	Mode of Transportation
ROM Iron Ore	7.00 MTPA	Bailadila Iron Ore Deposit- 4 Mine	13-15 km	During first 5 years of operation, the processed ore after in-pit crushing & screening is proposed to be transported by Tippers of 25-ton capacity by utilizing existing road (proposed to be strengthened) covering a distance of 13-15 km from hilltop to Loading plant area proposed to established near Bhansi railway station. After establishment of infrastructure facilities outside lease, the crushed ROM will be conveyed through downhill conveyor system from the crushing plant inside lease area to the Screening cum Beneficiation Plant outside lease area. The products from the plant will be conveyed to the Loading plant at Bhansi through a conveyor. The CLO and Fine ore will be transported through rail from Bhansi railway siding.

53.4.6 The water requirement for the proposed project is estimated to be 8,630 m³/day, which will be sourced from the existing Sankini Nalla and Nerli Nalla. Considering the future requirements including Mine, infrastructure, and proposed township, water Requirement is envisaged to be around 20,000 m³/day at the peak rated capacity which will be met from the source of existing Sankini Nalla and Nerli Nalla. NMDC-CMDC has submitted

53.4.7 application for obtaining water permission for 20,000 KLD with Water Resource Department, Raipur, vide letter No. NCL/ HO/ Dep-4/ WR/ 2021/960 Dated 08/12/2021. The power requirement for the proposed project is estimated as 6 MVA (Mining and infrastructure both interlinked projects), which will be obtained from the Chhattisgarh State Power Distribution Company Limited.

53.4.8 The capital cost of the is Rs. 4,091.33 Crores. The capital cost for environmental protection measures will be submitted in EIA/EMP report. The employment generation from the proposed project is 700 people. The cost of the project and employment includes both mining and infrastructure projects.

53.4.9 Proposed Terms of Reference (Baseline data collection period: December 2021 to February 2022):

Attributes	Parameters	Sampling		Remarks
		No. of Location	Frequency	
A. Air				
a. Meteorological parameters	Wind speed & direction, temperature, Relative humidity, rainfall	1	Hourly recording 24hrly	
b. AAQ parameters	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, O ₃ , CO, NH ₃ , C ₆ H ₆ , As, Ni, BaP & Pb	10	24 hourly sample twice a week for a month covering one-full season CO: 8-hour sample.	
B. Noise	Noise levels in dBA Leq day time & Leq night time	10	Once during study period	
C. Water				
Surface water/ Ground water quality parameters	Physical, Chemical and Bacteriological parameters as per IS: 2296/10500 standards.	11	Once during study period.	(6 surface water and 5 for ground water
D. Land				
a. Soil quality	pH, conductivity, texture, NPK, organic matter, moisture content, grain size distribution.	6	Once during study period	
b. Land Use	Land use / land cover will be prepared through using IRS satellite data (LISS-IV) and Arc GIS/	Study area	Once during study period	

Attributes	Parameters	Sampling		Remarks
		No. of Location	Frequency	
	Erdas imagine software.			
E. Biological a. Aquatic b. Terrestrial	Flora and Fauna, studies authenticated separately for core and buffer zone based on primary field survey, clearly indicating that Schedule of fauna present. In case of any schedule-1 fauna found in the study area, specific wildlife conservation plan will be prepared. Secondary data shall be collected from Forest Deptt's working plans and primary data through field survey.	Study area	Once during study period	
F. Socio-economic parameters	Socio-economic characteristics	Study area	Secondary data from Census 2011 and primary data from field survey.	

53.4.10 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.

53.4.11 Name of the EIA consultant: M/s. Ecomen laboratories Private Limited [S No 156, NABET Certificate/ Ext. ltr no. NABET/EIA/2023/RA 0203 valid up to 21/09/2023; Rev. 18, January 05, 2022].

Observations of the Committee

53.4.12 The EAC noted the following:

- i. The instant proposal is for seeking ToR for undertaking EIA study for setting up of 7.0 MTPA IOBP along with 2200 TPH downhill conveyer, loading and unloading facility and tailing pond.
- ii. Total land of 195.537 ha is proposed for project out of which 100.077 ha is forest area and 95.46 ha area is revenue land.
- iii. 2 Km Slurry pipeline to tailing pond will be passed through Reserved Forests (RF). Railway siding also passes through 2 RFs. There are 16 roads to be constructed which will also pass through 2 RFs.

- iv. With respect to the ongoing baseline data collection, 10 Nos of AAQ stations selected are grossly inadequate for staggered project area. Along the conveyor route also at least one AAQ station is required. Baseline data already collected is not acceptable as the number of stations are inadequate. AAQ stations shall be decided based on meteorology and topography of the area.

Recommendations of the Committee

53.4.13 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. Project proponent shall collect fresh one season Ambient Air Quality (AAQ) data based on meteorology and topography of the area.
- ii. A scheme for Dry disposal of Iron Ore Beneficiation Plant (IOBP) tailings after dewatering shall be submitted.
- iii. Cumulative impact assessment shall be carried out for iron ore mines and beneficiation plant.
- iv. Detail regarding no. of trees to be cut, girth & height, age and species of the trees shall be provided in the EIA/EMP report.
- v. R&R shall be implemented as per Land Acquisition, Rehabilitation and Resettlement (LARR) Act 2013. The details shall be furnished in EIA report.
- vi. Status of Forest Clearance for the diversion of 100.07 ha of forest land shall be submitted.
- vii. Details regarding downhill pipe conveyor, Right of Way for the conveyor and the noise control measures to be adopted in the conveyor route shall be submitted.
- viii. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
- ix. Action plan for fugitive emission control in the plant premises shall be provided.
- x. Action plan for green belt development in 33% of total area with tree density of 2500 plants per ha shall be submitted. This shall include 20 m green belt development inside the project area towards the Bhansi Village located at distance of 250 meter from the project site.
- xi. Action plan for rain water harvesting shall be submitted.
- xii. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- xiii. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
- xiv. Details of flora and fauna existing in the study area shall duly be authenticated by the concerned DFO of the area. In case of existence of any endangered species and schedule I fauna, authenticated conservation plan shall be submitted.

53.5 Greenfield Proposed Integrated Cement Project: Clinker - 8.0 MTPA (2x4.0 MTPA), Cement - 5.0 MPTA (2x2.5 MTPA), CPP - 40 MW (2x20 MW), WHRS - 40 MW (2x20 MW) in phase manner along with Railway Siding by **M/s. Wonder Cement Limited** located at Village Parewar, Tehsil & **District Jaisalmer, Rajasthan** [Online Proposal No. IA/RJ/IND/253066/2022; File no: IA-J-11011/24/2022-IA-II(IND-I)] – **Prescribing of Terms of Reference– regarding.**

- 53.5.1 M/s. Wonder Cement Limited has made an application online vide proposal no. IA/RJ/IND/253066/2022 dated 24/01/2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToR's for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Schedule No. 3 '(b)' under Category "A" of the schedule of the EIA Notification, 2006 and its amendment thereof.

Details submitted by Project proponent

- 53.5.2 The project of M/s. Wonder Cement Limited is located at Village Parewar, Tehsil & District Jaisalmer, Rajasthan for set up of Greenfield Proposed Integrated Cement Project: Clinker - 8.0 MTPA (2x4.0 MTPA), Cement - 5.0 MPTA (2x2.5 MTPA), CPP - 40 MW (2x20 MW), WHRS - 40 MW (2x20 MW) in phase manner along with Railway Siding.

- 53.5.3 Environmental site settings:

S No	Particulars	Details			Remarks
i.	Total land	377.54 ha (Govt. land: 377.54 ha)			Land Use - Government barren
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land allotment from Govt. is under progress			
iii.	Existence of habitation & involvement of R&R, if any.	Project Site: - NIL.			R&R is not applicable.
		Study Area:			
		Habitation	Distance	Direction	
		Village Parewar	800 m	SSW	
		Tulsiram ki dhani	1.5 Km	NE	
	Parewar ki dhani	1.0 Km	South		
	Village Lila	2.0 Km	NNE		
iv.	Latitude and Longitude of all corners of the project site	Point	Latitude	Longitude	--
		1	27°17'31.07"N	70°45'51.20"E	
		2	27°17'30.73"N	70°44'38.66"E	
		3	27°16'30.38"N	70°44'38.84"E	
	4	27°16'29.88"N	70°45'52.42"E		
v.	Elevation of the project site	176 - 191 m AMSL			--
vi.	Involvement of Forest land if any.	NIL			
vii.	Water body exists within the project site as well as study area	No water body exists within the project site and 10 km radius study area.			--

S 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	NIL.	--

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

S No	Plant facility/ equipment	Unit	Configuration	Capacity
1	Clinker	MTPA	2x4.0	8.0
2	Cement (OPC + PPC)	MTPA	2x2.5	5.0
3	CPP	MW	(2x20)*	40
4	WHRS	MW	(2x20)*	40
5	DG Set	KVA	2x1500	3000

*Common Single turbine of 40 MW comprises of 20 mw WHRS & 20 MW CPP.

53.5.5 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	Name of Raw Material	Quantity (MTPA)	Source	Approx. Distance from Project site	Mode of Transportation
1.	Limestone	10.56	Captive Limestone Mine/ Purchase	Adjacent	Conveyor Belt
2.	Red Ochre / Iron Ore	0.0132	Parewar	5 Km	by Road
3.	Clay	0.792	Captive/ Nearby area From Village - Lanela	50 Km	by Road
4.	Silica Sand	0.792	Parewar & Devikot	5 Km & 150 Km	by Road
5.	Gypsum (mineral and chemical)	0.250	Mohangarh	69 Km	by Road
6.	Fly ash & pond ash	1.75	Own TPP and Nearby Thermal Power Plants, Barmer, Rajasthan	190	by Road

53.5.6 The water requirement for the project is estimated as 2300 KLD, which will be sourced from Indira Gandhi Canal and Groundwater. Application for withdrawal of 2300 KLD surface water from Indira Gandhi Canal has been submitted to Indira Gandhi Nahar Board, Jaipur Rajasthan on dated 12/07/2021. Out of 2300 KLD, 1540 KLD water will be required for Cement Plant, 291 KLD water will be required for Residential Colony, 360 KLD water will be required for CPP and 300 KLD water will be required for WHRB.

53.5.7 The power requirement for the project is estimated as 90 MW, which will be sourced from Captive Power Plant (2x20 = 40 MW), WHRB (2x20 = 40 MW) and balance power will be sourced from State grid of JVVNL (Jaipur Vidyut Vitran Nigam Ltd.) & D.G Set (2x1500 KVA) (for emergency).

53.5.8 The capital cost of the project is Rs 4200 Crores and the capital cost for environmental protection measures is proposed as Rs 302 Crores. The employment generation from the proposed project is 2000 Persons during Implementation Phase and 1498 Persons (448 Permanent & 1050 Contractual) during Operation Phase.

53.5.9 Proposed Terms of Reference (Baseline data collection period): Baseline Data Collection will be commenced from **December 2021 to February 2022**):

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
A. Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction, Rainfall	01 (Project site)	Hourly	-
B. Air	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO and PAHs	08	Twice a week (24 Hourly)	-
C. Noise	Equivalent noise levels in Leq in dB (A)	08	Once in a season (Day & Night time)	-
D. Water				
a.Surface water/ b.Ground water quality parameters	Parameters as per IS 10500 - 2012	Surface Water - 0 Ground water - 08	Once in a season	-
E. Land				
a. Soil Quality	Parameters As per IS 2720/USDA	08	Once in a season	-
b. Land Use	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	10 km radius Study Area	Once in a Study period Season	-
F. Biological				
a. Aquatic	Flora and fauna	Study area	Once in a season	-
b. Terrestrial				
G. Socio-economic parameters	Economic Demography	Study area	Once in a season	-

53.5.10 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.

53.5.11 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S No 44, NABET Certificate/ Ext. letter no. NABET/EIA/2023/RA 0186 valid up to 07/02/2023; Rev. 18, January 05, 2022].

Observations of the Committee

53.5.12 The EAC noted the following:

- i. The instant proposal is for seeking ToR for undertaking EIA study for setting up of Integrated Cement Plant-Clinker - 8.0 MTPA (2x4.0 MTPA), Cement - 5.0 MTPA (2x2.5 MTPA), CPP - 40 MW (2x20 MW), WHRS - 40 MW (2x20 MW) along with Railway Siding.
- ii. Total land of 377.54 ha is proposed for project which is government barren land.
- iii. Parewar village is 500 m from the site in SSW direction.
- iv. Captive limestone mine is situated adjacent to the proposed plant.

Recommendations of the Committee

53.5.13 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. Cumulative impact assessment shall be carried out for limestone mines and cement plant.
- ii. Plan shall be provided in EIA/ EMP report for withdrawal of water from Indira Gandhi Canal and from rain water harvesting for proposed project. No ground water abstraction.
- iii. A detail traffic study shall be carried out at MDR and capacity of MDR in term of MSA as per IRC guideline shall be provided.
- iv. A village road is passing through the plant area, detail of the diversion of the road shall be incorporated in EIA/ EMP road.
- v. Monitoring data shall be carried out at 2 more AAQM stations one in Upwind and one in crosswind towards NE.
- vi. Railway siding from Sanu Railway Station is proposed. Time bound action plan to complete the railway siding shall be incorporated in EIA/ EMP report.
- vii. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
- viii. Action plan for fugitive emission control in the plant premises shall be provided.
- ix. Action plan for green belt development in 33% of the total area with tree density of 2500 plants per ha shall be submitted. This shall include 20 m green belt development inside the project area towards the Parewar Village located at distance of 500 meter from the project site.
- x. Action plan for rain water harvesting shall be submitted.
- xi. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- xii. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.

53.6 Greenfield project comprising of Establishment of DRI Kilns (2,31,000 TPA), Induction Furnace with LRF & CCM (Hot Billets / MS Billets / Ingots) (2,64,000 TPA), Rolling Mill (TMT Bars / Structural Steel) (2,64,000 TPA), WHRB based Power Plant – 2x8.0 MW, CFBC based Power Plant – 1x9.0 MW, Ferro Alloys Unit (FeSi – 7,000 TPA or SiMn – 14,400 TPA or FeMn – 25,200 TPA or FeCr – 15,000 TPA) & Brick Manufacturing unit (32,000 Bricks / Day)] by **M/s. Lala Pipes Private Limited** located at Paunsari Village, Simga Tehsil, **Balodabazar Bhatapara District, Chhattisgarh** [Online Proposal No. IA/CG/IND/253850/2022; File no: IA-J-11011/35/2022-IAII(IND-I)] – **Prescribing of Terms of Reference– regarding.**

53.6.1 M/s. Lala Pipes Private Limited has made an application online vide proposal no. IA/CG/IND/253850/2022 dated 29/01/2022 along with 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 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.

Details submitted by Project proponent

53.6.2 The project of M/s. Lala Pipes Private Limited is located in Paunsari Village, Simga Tehsil, Balodabazar Bhatapara District, Chhattisgarh for Greenfield project comprising of Establishment of DRI Kilns (2,31,000 TPA), Induction Furnace with LRF & CCM (Hot Billets / MS Billets / Ingots) (2,64,000 TPA), Rolling Mill (TMT Bars / Structural Steel) (2,64,000 TPA), WHRB based Power Plant – 2x8.0 MW, CFBC based Power Plant – 1x9.0 MW, Ferro Alloys Unit (FeSi – 7,000 TPA or SiMn – 14,400 TPA or FeMn – 25,200 TPA or FeCr – 15,000 TPA) & Brick Manufacturing unit (32,000 Bricks/ Day)].

53.6.3 Environmental site settings:

SNo	Particulars	Details			Remarks
i.	Total Land	14.88 ha. (36.77 Acres) [Private Land]			Land Use: Agricultural land
ii.	Land acquisition details as per MoEF & CC O.M. dated 7/10/2014	Out of total 14.88 ha, 14.38 ha is in possession of management and remaining 0.50 ha is in the process of acquiring.			---
iii.	Existence of habitation & involvement of R & R, if any.	Project site: NIL			No R&R is required
		Study Area:			
		Habitation	Distance	Direction	
		Paunsari Village	0.75 Kms	SW	
iv.	Latitude and Longitude of the project site	Latitude and Longitude of the project site:			---
		S.NO	LONGITUDE & LATITUDE		
		1	21°37'42.43"N 81°44'27.01"E		
		2	21°37'42.33"N 81°44'34.85"E		
		3	21°37'40.47"N 81°44'38.21"E		
		4	21°37'32.98"N 81°44'39.34"E		
5	21°37'24.52"N 81°44'35.69"E				

SNo	Particulars	Details			Remarks												
		6	21°37'22.00"N 81°44'30.37"E														
		7	21°37'31.24"N 81°44'26.73"E														
		8	21°37'37.39"N 81°44'26.45"E														
v.	Elevation of the project site	268 m to 270 m Above Mean Sea Level			---												
vi.	Involvement of Forest land, if any	NIL			---												
vii.	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>Kotri Nallah</td> <td>0.6 Kms</td> <td>S</td> </tr> <tr> <td>Gadaria Nallah</td> <td>3.0 Kms</td> <td>S</td> </tr> <tr> <td>Shivnath River</td> <td>5.0 Kms</td> <td>W</td> </tr> </tbody> </table>			Water Body	Distance	Direction	Kotri Nallah	0.6 Kms	S	Gadaria Nallah	3.0 Kms	S	Shivnath River	5.0 Kms	W	---
Water Body	Distance	Direction															
Kotri Nallah	0.6 Kms	S															
Gadaria Nallah	3.0 Kms	S															
Shivnath River	5.0 Kms	W															
viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	NIL. List of Reserved and protected forests: Bilari Ghughua RF – 3.0 Km/SE Bilari RF – 4.5 Km/South			---												

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

S No	Plant Equipment/ Facility	Plant Configuration	Production Capacity
1.	DRI Kilns (Sponge Iron)	2x350 TPD	2,31,000 TPA
2.	Induction Furnaces (Hot Billets / MS Billets / Ingots)	4x20 T	2,64,000 TPA
3.	Rolling Mills (TMT bars / Structural Steel)	--	2,64,000 TPA
4.	Ferro Alloys	1x9 MVA	(FeSi – 7,000 TPA or SiMn – 14,400 TPA or FeMn – 25,200 TPA or FeCr – 15,000 TPA)
5.	Power Plant (Electricity)	(16.0 MW WHRB + 9.0 MW FBC)	25.0 MW
6.	Brick Manufacturing Unit	--	32,000 Bricks / Day
7.	Briquetting Plant	100 Kg/ Hr.	--

53.6.5 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	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	For DRI Kilns (Sponge Iron) – 2,31,000 TPA				

S No	Raw Material		Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
a)	Iron ore		3,69,600	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)
b)	Coal	Indian	3,00,300	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
		Imported	1,92,192	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
c)	Dolomite		11,550	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
2. For Steel Melting Shop (Billets/ Ingots/Hot Billets) – 2,64,000 TPA						
a)	Sponge Iron		2,67,000	Own generation & Purchased from outside	--- ~ 100 Kms.	Through covered conveyers By road (through covered trucks)
b)	MS Scrap / Pig Iron		40,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
c)	Ferro alloys		13,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
3. For Rolling Mill through Hot charging (Rolled Products) – 2,64,000 TPA						
a)	Hot Billets (85% - Hot Charging)		2,33,376	Own generation	---	----
b)	MS Billets / MS Ingots (15% - Reheating)		43,560	Own generation	---	----
c)	LDO / LSHS (for 15% Reheating)		1200 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)
4. For FBC Boiler [Power Generation - 1 x 9.0 MW]						
a)	Indian Coal (100 %)		53,460	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
OR						
b)	Imported Coal (100 %)		34,214	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
OR						
c)	Dolochar + Indian Coal	Dolochar	46,200	In plant generation	---	through covered conveyors
		Indian Coal	30,360	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
OR						
d)	Dolochar + Imported Coal	Dolochar	46,200	In plant generation	---	through covered conveyors
		Imported coal	19,430	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
5.	For Ferro Alloys (1 x 9 MVA)				
5 (i)	<i>For Ferro Silicon – 7,000 TPA</i>				
a)	Quartz	10,640	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
b)	Mill Scale	1,645	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	M.S. Scrap	245	Inhouse Generation	---	By road (through covered trucks)
d)	LAM Coke	3,920	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
e)	Electrode paste	140	Own generation	---	---
f)	Briquetted Bag filter dust	266			
5 (ii)	<i>For Ferro Manganese – 25,200 TPA</i>				
a)	Manganese Ore	57,330	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	LAM Coke	9,198	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Dolomite	4,284	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS scrap / Mill scales	3,780	Inhouse Generation	---	By road (through covered trucks)
e)	Electrode paste	328	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Briquetted Bag filter dust	1,260	Own generation	---	---
5 (iii)	<i>For Silico Manganese – 14,400 TPA</i>				
a)	Manganese Ore	23,472	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	FeMn Slag	15,236	In house generation	---	----
c)	LAM Coke	5,400	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	Dolomite	3,240	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Electrode paste	288	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Quartz	3,456	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
g)	Briquetted Bag filter dust	216	Own generation	---	---
5 (iv)	<i>For Ferro Chrome – 15,000 TPA</i>				
a)	Chrome Ore	30,000	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag Port)	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	4,950	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Quartz	2,625	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill Scale	2,250	Inhouse Generation	---	By road (through covered trucks)
e)	Magnetite / Bauxite	2,535	Chhattisgarh / Maharashtra	~ 500 Kms.	By road (through covered trucks)
f)	Electrode Paste	450	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
g)	Briquetted Bag filter dust	960	Own generation	---	---

53.6.6 The Water required for the proposed project will be 1200 KLD, and will be sourced from Shivnath River (which is at a distance of 5.0 Kms. from the project site). Water drawl permission from Water Resource Department, Chhattisgarh will be obtained.

53.6.7 The Power required for the proposed project will be **43.0 MW** and same will be sourced from Captive Power Plant (**25.0 MW**) and remaining (**18.0 MW**) from State Grid.

53.6.8 The capital cost of the project is Rs.350.0 Crores and Capital Cost for Environment Protection Measures is proposed as Rs. 45.5 Crores. The employment generation from proposed project will be 350 nos. through direct employment and 500 nos. through indirect employment.

53.6.9 Proposed Terms of Reference: (Baseline Data Collection will be commenced from **1st March 2022 to 31st May 2022**)

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	<ul style="list-style-type: none"> • Wind Speed • Wind Direction • Temperature • Relative Humidity 	1	On hourly basis for one season	

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	• Rainfall			
b. AAQ parameters	Parameters to be Monitored: PM _{2.5} , PM ₁₀ , SO ₂ , NO _x , CO	8	24 hourly Twice a week for 3 months (One Season)	
B. Noise	Parameters to be Monitored: Day equivalent Night equivalent	8	On hourly basis for 24 Hrs. at each station	
C. Water				
i) Ground Water	Parameters will be Monitored: as per IS: 10500	8	One sample at each of the locations	
ii) Surface Water	Parameters will be Monitored: as per BIS: 2296	4	One sample at each of the locations	
D. Land				
a. Soil quality	Parameters will be Monitored: Texture, infiltration rate, SAR bulk density, CEC, pH, Ca, Mg, Na, K, Zn, Mn	8	One sample at each of the locations	
b. Land use	LU map will be prepared by concerned FAE for study area	--	--	--
E. Biological				
a. Aquatic	--	--	Once in Season	--
b. Terrestrial	--	--	Once in Season	--
F. Socio-economic parameters	Social Impact Assessment will be carried out by concerned FAE for study area	--	Once in Season	
G. Traffic Density	Vehicular traffic study will be carried out at Transportation route.			

53.6.10 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.

53.6.11 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S No 139, NABET Certificate no. NABET/EIA/2124/RA0227 and valid up to 20/03/2022; Rev. 18, January 05, 2022].

Observations of the Committee

53.6.12 The EAC noted the following:

- i. The instant proposal is for seeking ToR for undertaking EIA study for setting up of Steel Plant at Paunsari Village, Simga Tehsil, Balodabazar Bhatapara District, Chhattisgarh.
- ii. Total land of 14.88 ha is proposed for project and 33% area to be developed as green belt.

Recommendations of the Committee

53.6.13 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. A plan of water withdrawal from surface water source shall be provided in EIA/EMP report. No ground water abstraction shall be permitted.
- ii. 85% direct hot charging for billets shall be adopted and remaining through reheat furnace operating on LDO/LSHS.
- iii. Zigging and briquetting plant shall be proposed in Ferro Chrome unit.
- iv. Plan shall be provided for 100% solid waste utilization at plant.
- v. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
- vi. Action plan for fugitive emission control in the plant premises shall be provided.
- vii. Action plan for green belt development in 33% of total area with tree density of 2500 plants per ha shall be submitted. This shall include 20 m green belt development inside the project area towards the Paunsari Village.
- viii. Action plan for rain water harvesting shall be submitted.
- ix. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- x. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.

53.7 Up-Gradation of blast furnaces to enhance the production capacity (BF-1 & 2 from 2,92,000 TPA to 3,50,000 TPA; BF-3 from 5,40,000 TPA to 6,50,000 TPA); setting up of additional oxygen plant, Installation of Ductile Iron Pipe Plant and additional met coke battery, setting up of Fe-Si Plant of 5,000 TPA capacity by **M/s. Vedanta Limited** (Formerly Sesa Goa Ltd.) located at villages Amona and Navelim, Bicholim Taluka, **North Goa District, Goa** [Online Proposal No. IA/GA/IND/253900/2022, File No. IA-J-11011/946/2007-IA.II(I)] – **Amendment in Environment Clearance – regarding.**

53.7.1 M/s. Vedanta Limited (Formerly Sesa Goa Ltd.) has made online application vide proposal no. IA/GA/IND/253900/2022 dated 29/01/2022 along with addendum in EIA/EMP report, Form 4 and certified compliance report seeking amendment in the Environment Clearance accorded by the Ministry vide letter no. IA-J-11011/946/2007-IA. II(I) dated 24/01/2022 under the provisions of the EIA Notification, 2006 for the project mentioned above.

Details submitted by Project proponent

53.7.2 M/s. Vedanta Limited has obtained environmental clearance from Ministry vide letter dated 24/01/2022 for upgradation of Blast Furnaces (BF) to Enhance the Production Capacity of BF-1 & 2 from 2,92,000 TPA to 3,50,000 TPA, BF-3 from 5,40,000 TPA to 6,50,000 TPA, setting up of Additional Oxygen Plant, Installation of Ductile Iron Pipe Plant of 3,00,000

TPA Capacity, 4 Additional Met Coke Ovens, Setting Up of Fe-Si Plant of 5,000 TPA Capacity at villages Amona and Navelim, Bicholim Taluka, North Goa District, Goa.

Amendment Sought in EC dated 24/01/2022:

53.7.3

PP is requested to the Ministry for amendment in specific condition (x) and (xiv) of Environmental clearance given as below:

S No	Condition no	As per EC dated 24/01/2022	Amendment sought	Remarks
1	Specific condition x	BF shall be equipped with Top Recovery Turbine, Dry Gas cleaning plant, stove waste recovery, cast house and stock house ventilation system and slag granulation facility.	BF 1, 2 & 3 shall be equipped with stove waste recovery, cast house and stock house ventilation system and slag granulation facility and BF3 shall be equipped with Dry Gas Cleaning Plant.	<p>Blast Furnace 1 and Blast Furnace 2 with are of 173 m³ furnaces commissioned in the year 1992 and 1994 respectively, are operating at lower gas flow and pressure hence technically it is not feasible to have Top Recovery Turbine for the Blast Furnace 1 & 2.</p> <p>In case of Blast Furnace 3 of 450m³ was commissioned and put into operation in the year 2012. MCC overseas China is the technology provider for the blast furnace and associated accessories. During the project conceptualization of project TRT was considered in line with our company philosophy of green energy and waste heat recovery but during the design stage this was ruled out as considering the basis of design the minimum top pressure for the furnace for TRT has to be 120KPA whereas for our case it was coming to 90-100KPA only and TRT was not economical, so we only opted out for waste heat recovery power plant with Coke oven gas and Blast furnace gas as source of heat and fuel.</p> <p>Dry Gas cleaning Plant We have dry gas cleaning plant at Blast Furnace BF3 which was commissioned in the year 2012 as top gas temperature is more than 100 and it is designed based up dry sinter feed.</p> <p>Blast furnace BF1 and BF2 were</p>

S No	Condition no	As per EC dated 24/01/2022	Amendment sought	Remarks
				<p>commissioned in 1992 and 1994 respectively. These blast furnaces were designed to operate with 100% iron ore lumps and a wet Gas Cleaning Plant. As Lumps contains high moisture and Loss on ignition, the furnace top gas temperatures goes on lower side (Less than 100 °C).</p> <p>In non-rainy season top gas temp rages between 140-220 °C and in rainy season it varies from 65-140 °C. In this region like Goa wherein rainy season last for to 4-5 months. Dry GCP would not be suitable as it will frequently choke the filter bags due to high moisture in the gas. Present wet GCP is operating efficiently as per the design parameters. Water from GCP is cleaned by passing through settling tanks, thickener and is being 100% recirculated back in process. Even after expansion in Blast Furnace 1 & 2 the GCP water specific consumption will remains the same</p>
2	Specific condition no xiv.	AAQ at Mosque and Siddhartha Caves archaeological sites shall be monitored as per the CPCB norms.	AAQ at Mosque and Siddhartha Caves archaeological sites shall be monitored once in a month as per the CPCB norms.	During the course of appraisal of the project on 29 th December, the EAC had decided to recommend for AAQ monitoring at the Archaeological monuments sites (Mosque and Siddhartha Caves) at the frequency of once a month for the purpose of data generation. The sentence, as recorded, appears to be an inadvertent typographical error.

53.7.4 Project configuration and capacity are same, project proponent is not proposed amendment in project configuration and capacity.

Observations of the Committee

53.7.5 The Committee noted the following:

- i. M/s. Vedanta Limited has obtained environmental clearance from Ministry vide letter dated 24/01/2022 for upgradation of Blast Furnaces with setting up of Additional Oxygen Plant, Ductile Iron Pipe Plant, 4 Additional Met Coke Ovens and Setting up of Fe-Si Plant at villages Amona and Navelim, Bicholim Taluka, North Goa District, Goa.
- ii. Now PP has requested to amend the specific condition no. (x) and (xiv) of EC dated 24/01/2022 as mentioned in table given at para 53.7.3 above.

Recommendations of the Committee

53.7.6 In view of the foregoing and after detailed deliberations, the committee recommended for amendment in specific condition no (x) and (xiv) of EC dated 24/01/2022 as mentioned below. All other terms and conditions of the EC dated 24/01/2022 shall be remain same.

S No	Condition no	As per EC dated 24/01/2022	Amendment sought
1	Specific condition x	BF shall be equipped with Top Recovery Turbine, Dry Gas cleaning plant, stove waste recovery, cast house and stock house ventilation system and slag granulation facility.	BF 3 shall be equipped with stove waste recovery, cast house and stock house ventilation system, slag granulation facility, Dry Gas Cleaning Plant. Top Recovery Turbine shall be installed during next revamping of BF3. BF 1 & 2 shall be equipped with stove waste recovery, cast house and stock house ventilation system and slag granulation facility. Dry Gas Cleaning Plant shall be installed during next revamping of BF1 and BF2.
2	Specific condition no xiv.	AAQ at Mosque and Siddhartha Caves archaeological sites shall be monitored as per the CPCB norms.	AAQ at Mosque and Siddhartha Caves archaeological sites shall be monitored once in a month as per the CPCB norms.

53.8 Expansion of Sponge Iron Plant for Production of 2.1555 MTPA Crude Steel, 0.160704 MTPA Ferro-Alloys (maximum) and 2x1MTPA Cement Plant (Grinding Unit) along with allied facilities by **M/s Bravo Sponge Iron Private Limited** located at Village Mahuda, P.O. Rukni, **District Purulia, West Bengal** [Online Proposal No. IA/WB/IND/254042/2022, File No. J-11011/758/2009-IA-II(I)] –**Amendment in Terms of Reference – regarding.**

53.8.1 M/s. Bravo Sponge Iron Pvt Ltd (BSIPL) has made an online application vide proposal no. IA/WB/IND/254042/2022 dated 29/01/2022 along with Form 3, revised Form-1 and PFR seeking amendment in standard Terms of Reference accorded by the Ministry vide letter no. J-11011/758/2009-IA-II(I) dated 14/05/2021. The proposed project activity is listed at

S. No. 3(a) Metallurgical industries (ferrous & non- ferrous) and 3(b) Cement Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central level.

Details submitted by the project proponent

53.8.2 M/s. BSIPL had proposed for Expansion of Sponge Iron Plant for Production of 2.1555 Million Tons Per Annum Crude Steel, 0.160704 Million Tons Per Annum Ferro-Alloys (maximum) and 2x1MTPA Cement Plant (Grinding Unit) along with allied facilities at Village Mahuda, P.O. Rukni, District Purulia, West Bengal. Application for ToR was submitted to MoEF&CC, New Delhi on 13/05/2021. The standard ToR letter was issued vide letter no. J-11011/758/2009-IA-II(I) dated 14/05/2021.

53.8.3 The instant proposal of M/s. MSPL Limited is for seeking following amendment in the ToR dated 14/05/2021:

S No	Plant/ Equipment/ Facility	As per ToR dated 14/05/2021	Final capacity & (Configuration) after amendment	Remarks
1	SMS I (IF-LRF-CCM) new AOD	445,500 TPA (IF:4x15T+3x25T LRF: 1x30T CCM: 1x4/7 CCM and 1x6/11 CCM)	Including 198,000 TPA SS Billets within 445,500 TPA IF:4x15T+3x25T LRF: 1x30T AOD 1x25 Ton CCM: 1x4/7 CCM and 1x6/11 CCM	No change in production capacity. Only change in product mix for production of 445,500 MS Billets including max. 198,000 SS Billets within overall, Billet production capacity.
2	SMS II (IF-LRF-CCM)	MS Billets 1,050,000 TPA (IF: 10x30T, LRF: 1x30T, 3x6/11 CCM)	MS Billets 1,050,000 TPA (IF: 10x30T, LRF: 1x30T, 3x6/11 CCM)	No Change
3	SMS III (LD-LRF-VD-CCM)	MS Billets 660,000 TPA (LD Converter: 1x55T LRF: 2x55T + VD: 1x55 Ton + 2x8/15 CCM)	MS Billets 660,000 TPA (LD Converter: 1x55T LRF: 2x55T + VD: 1x55 Ton + 2x8/15 CCM)	No Change
4	MS/ SS Long Products along with Wire Drawing facility	MS long product 1,485,000 TPA RM#1 - 2000TPD RM#2 - 2000TPD RM#3 - 1000TPD RM#4 - 500TPD	1,485,000 TPA MS long product including max. 194,000 TPA SS Long products with in overall Rolled production capacity RM#1 - 2000TPD RM#2 - 2000TPD RM#3 - 1000TPD RM#4 - 500TPD	No change in production capacity. Only change in product mix for production of 14,85,000 TPA MS long product including max. 194,000 TPA SS Long products with in overall Rolled

S No	Plant/ Equipment/ Facility	As per ToR dated 14/05/2021	Final capacity & (Configuration) after amendment	Remarks
				production capacity
5	Reheating Furnace	50TPH, 100TPH, 50TPH, 25TPH	50TPH, 100TPH, 50TPH, 25TPH	No Change
6	Producer Gas Plant	48,000 Nm ³ /hr	48,000 Nm ³ /hr	No Change
7	Briquette Plant for Ferro-alloys	300,000TPA (1x50TPH)	300,000TPA (1x50TPH)	No Change
8	Sinter Plant for Ferro-alloys	216,000TPA (1x600TPD)	216,000TPA (1x600TPD)	No Change
9	Coke Oven Plant	704,000 TPA (3LTPA: 4 batteries @ 17ovens each 4LTPA: 4 batteries @ 23ovens each)	704,000 TPA (3LTPA: 4 batteries @ 17ovens each 4LTPA: 4 batteries @ 23ovens each)	No Change
10	Sponge Iron Plant	21,97,800TPA (DRI Kiln: 4x100 TPD 1x350 TPD 8x600 TPD)	21,97,800TPA (DRI Kiln: 4x100 TPD 1x350 TPD 8x600 TPD)	No Change
11	Oxygen Plant	164,250 TPA (2x225 TPD)	164,250 TPA (2x225 TPD)	No Change
12	Ferro-alloys Plant	6x9MVA SAF Fe-Mn-145,543, or Si. Mn-107,136, or Fe Si – 48,211, or High Carbon Ferro Chrome – 101,497, or Ferro Silico Chrome - 66,498, or Pig Iron-160,704, or in combination of any	6x9MVA SAF Fe-Mn-145,543, or Si. Mn-107,136, or Fe Si – 48,211, or High Carbon Ferro Chrome – 101,497, or Ferro Silico Chrome - 66,498, or Pig Iron-160,704, or in combination of any	No Change
13	Cement Plant	1,980,000 TPA	1,980,000 TPA	No Change
14	Pellet Plant	1700,000 TPA	1700,000 TPA	No Change
15	Sinter Plant	2,475,200 TPA (2x130m ²)	2,475,200 TPA (2x130m ²)	No Change
16	Blast Furnace	1,309,000 TPA Hot Metal (BF: 1x450m ³ +1x650m ³ Pig casting Machine: 1x2200TPD +1x1530 TPD Slag Granulation Plants 540 TPD & 775 TPD)	1,309,000 TPA Hot Metal (BF: 1x450m ³ +1x650m ³ Pig casting Machine: 1x2200TPD +1x1530 TPD Slag Granulation Plants 540 TPD & 775 TPD)	No Change

S No	Plant/ Equipment/ Facility	As per ToR dated 14/05/2021	Final capacity & (Configuration) after amendment	Remarks
17	Metal Recovery Plant (Ferro-alloys)	1x25TPH	1x25TPH	No Change
18	Ductile Iron Pipe Plant	247,500 TPA	247,500 TPA	No Change
19	Power Plant	280MW (WHRB-155MW, Coke Oven-35MW, BF Based-30MW Based on CBFC: 50MW based on AFBC: 10 MW)	280MW (WHRB-155MW, Coke Oven-35MW, BF Based-30MW Based on CBFC: 50MW based on AFBC: 10 MW)	No Change
20	Railway Siding	From Rukni Railway Stn. to the Plant location 1 km (approx.) with Wagon Tippler.	From Rukni Railway Stn. to the Plant location 1 km (approx.) with Wagon Tippler.	No Change

Reason for the Amendment in ToRs:

- 53.8.4 In view of marked demand of Stainless-Steel long products, it is proposed to incorporate the production of SS products. MS and SS long products shall be produced on either/or basis, or in combination of both without change in the production capacity under the ToR.

Any other amendment required:

S No	Particular	Description as per Approved ToR	Description after Amendment	Remarks
1	Project Cost	5640 Crores	5650 Crores	Increased in cost due to addition of 1x25T AOD.
2	Water requirement	21330 m ³ /day	21378 m ³ /day	Increase in overall water requirement.

Observations of the Committee

- 53.8.5 The Committee noted the following:
- Proposal was accorded standard Terms of Reference on 14/05/2021 for undertaking EIA study for Production of 2.1555 Million Tons Per Annum Crude Steel, 0.160704 Million Tons Per Annum Ferro-Alloys (maximum) and 2x1MTPA Cement Plant (Grinding Unit) along with allied facilities.
 - Now, PP want to add one AOD to produce SS billets of 1,98,000 TPA without change overall capacity of 445,500 MS Billets and include max. 194,000 TPA SS Long products with in overall Rolled production capacity of 14,85,000 TPA.
 - It is observed by EAC, that project site is in two part divided by public road.

Recommendations of the Committee

- 53.8.6 In view of the foregoing and after deliberations, the Committee recommended for amendments in ToR dated 14/05/2021 as mentioned at para 53.8.3 & 53.8.4 subject to the stipulation following specific ToRs.

- i. PP shall provide action plan for separate treatment system for waste water from SS rolling mill and slag from treatment plant shall be sent to TSDF.
- ii. Plan shall be provided for Zigging and briquetting plant in Ferro Alloy plant.
- iii. Action plan for utilization of solid wastes shall be submitted.
- iv. SAF shall be proposed of closed type with 4th hole extraction system.
- v. Action plan for treatment of phenolic wastewater from producer gas plant shall be submitted.
- vi. 450 m³ and 650 m³ BFs shall be proposed with Top Recovery Turbine TRT, cast house and stock house ventilation system, CH slag granulation and WHR from stove waste gases shall be proposed.
- vii. AOD/ LRF for SS manufacturing shall be proposed with independent bag houses.
- viii. Scheme shall be provided for pollution control in DIP in details from IF for temperature correction, Mg treatment, Centrifugal casting, annealing, zinc coating, hydro testing, cement lining to Bitumen coating including CETP for effluent treatment from DIP Plant.
- ix. There two separate parts of plot. Action plan for development of underpass and overhead connectivity to connect the both part of the plant for transportation of the material shall be submitted.
- x. Plan shall be provided for commencement of railway siding.
- xi. Sinter cooler waste heat recovery system shall be proposed. Facility to control dioxins and furan in sinter plant shall be included.
- xii. Desulphurization shall be proposed for Coke oven gases.
- xiii. LD converter shall have secondary fume extraction system and LD gas recovery shall be proposed.
- xiv. Proposal shall be provided for 85-90% direct hot charging and remaining from Reheat furnace operating on LDO/LSHS.
- xv. Modified wet quenching tower for coke quenching shall be provided.
- xvi. Action plan for green belt development in 33% of total area with tree density of 2500 plants per ha shall be submitted. This shall include 20 m green belt development inside the project area towards the Mahuda Village.

11th February, 2022

- 53.9 Expansion in Clinker Production Capacity from 0.98 MTPA to 1.52 MTPA along with the installation of waste heat recovery system (8 MW) by **M/s. Calcom Cement India Limited** located at 16 Kilo - Langcherui (Jamunanagar), Tehsil: Umrangso, **District: Dima Hasao (Earlier North Cachar Hills), Assam** [Online Proposal No. IA/AS/IND/4109/2006; File no: J-11011/307/2006-IA.II(I)] – **Environment Clearance– regarding.**
- 53.9.1 M/s. Calcom Cement India Limited has made an online application *vide* proposal no. IA/AS/IND/4109/2006 dated 03/02/2022 along with copy of EIA/EMP Report, Form - 2 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(b) Cement Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

53.9.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
27/07/2021	Standard ToR granted	Terms of Reference	29/07/2021	28/07/2025

53.9.3 The project of M/s. Calcom Cement India Ltd. located at 16 Kilo, Langcherui (Jamunanagar), Umrangso Tehsil, Dima Hasao (Earlier North Cachar Hills) District, Assam State is for Expansion in Clinker Production Capacity from 0.98 MTPA to 1.52 MTPA along with Installation of Waste Heat Recovery System (8 MW).

53.9.4 Environmental Site Settings:

S No	Particulars	Details																																						
i.	Total land	29.14 ha (Private Land) Existing: 20.7 ha Proposed land: 9.07 ha																																						
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land 29.14 ha (Existing - 20.07 + Additional Contiguous area 6.37 ha for Expansion + 2.7 ha Proposed Residential Colony) is under the possession of the company.																																						
iii.	Existence of habitation & involvement of R&R, if any	<p>Plant Site: No habitation exists within the plant site and R & R is not applicable.</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>Langcherui</td> <td>~0.5</td> <td>SSW</td> </tr> <tr> <td>Umrangso</td> <td>~1.5</td> <td>East</td> </tr> <tr> <td>Umrong (Dam Colony)</td> <td>~2.5</td> <td>West</td> </tr> <tr> <td>Dithur Rongker place</td> <td>~0.5</td> <td>SSE</td> </tr> <tr> <td>Dithur</td> <td>~4.5</td> <td>WSW</td> </tr> <tr> <td>Tuijonte</td> <td>~2.5</td> <td>SW</td> </tr> <tr> <td>18 Kilo</td> <td>~1.5</td> <td>NNE</td> </tr> </tbody> </table> <p>There are approx. 27 villages in 10 km radius study area.</p>			Habitation	Distance (km)	Direction	Langcherui	~0.5	SSW	Umrangso	~1.5	East	Umrong (Dam Colony)	~2.5	West	Dithur Rongker place	~0.5	SSE	Dithur	~4.5	WSW	Tuijonte	~2.5	SW	18 Kilo	~1.5	NNE												
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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>25°30'55.73" N</td><td>92°45'36.99" E</td></tr> <tr><td>2.</td><td>25°30'55.18" N</td><td>92°45'35.57" E</td></tr> <tr><td>3.</td><td>25°30'45.41" N</td><td>92°45'31.30" E</td></tr> <tr><td>4.</td><td>25°30'44.35" N</td><td>92°45'28.81" E</td></tr> <tr><td>5.</td><td>25°30'38.86" N</td><td>92°45'25.34" E</td></tr> <tr><td>6.</td><td>25°30'38.51" N</td><td>92°45'26.62" E</td></tr> <tr><td>7.</td><td>25°30'37.80" N</td><td>92°45'30.90" E</td></tr> <tr><td>8.</td><td>25°30'38.97" N</td><td>92°45'35.03" E</td></tr> <tr><td>9.</td><td>25°30'42.15" N</td><td>92°45'45.24" E</td></tr> <tr><td>10.</td><td>25°30'43.54" N</td><td>92°45'46.69" E</td></tr> <tr><td>11.</td><td>25°30'47.24" N</td><td>92°45'47.96" E</td></tr> </tbody> </table>	Point	Latitude	Longitude	1.	25°30'55.73" N	92°45'36.99" E	2.	25°30'55.18" N	92°45'35.57" E	3.	25°30'45.41" N	92°45'31.30" E	4.	25°30'44.35" N	92°45'28.81" E	5.	25°30'38.86" N	92°45'25.34" E	6.	25°30'38.51" N	92°45'26.62" E	7.	25°30'37.80" N	92°45'30.90" E	8.	25°30'38.97" N	92°45'35.03" E	9.	25°30'42.15" N	92°45'45.24" E	10.	25°30'43.54" N	92°45'46.69" E	11.	25°30'47.24" N	92°45'47.96" E		
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		12.	25°30'51.27" N	92°45'47.08" E																		
		13.	25°30'52.67" N	92°45'44.61" E																		
		14.	25°30'55.17" N	92°45'41.08" E																		
		15.	25°30'48.55" N	92°45'55.35" E																		
		16.	25°30'50.06" N	92°45'50.67" E																		
		17.	25°30'45.09" N	92°45'47.99" E																		
		18.	25°30'43.17" N	92°45'48.28" E																		
		19.	25°30'38.16" N	92°45'49.43" E																		
		20.	25°30'38.94" N	92°46'01.44" E																		
		21.	25°30'42.98" N	92°46'9.63" E																		
		22.	25°30'45.53" N	92°46'11.34" E																		
		23.	25°30'46.98" N	92°46'7.82" E																		
		24.	25°30'43.69" N	92°46'2.53" E																		
		25.	25°30'39.20" N	92°45'55.98" E																		
		26.	25°30'41.42" N	92°45'59.42" E																		
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		35.	25°30'32.38" N	92°46'00.48" E																		
		36.	25°30'37.46" N	92°45'57.19" E																		
v.	Elevation of the project site.	469 to 544 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>Project site: No water body exist within the plant site.</p> <p>Study area: Following water bodies falls within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Umrong Reservoir</td> <td>3.0 km</td> <td>West</td> </tr> <tr> <td>Langyen Nadi</td> <td>5.0 km</td> <td>ENE</td> </tr> <tr> <td>Longlai River</td> <td>6.0 km</td> <td>SE</td> </tr> <tr> <td>Mongle Nadi</td> <td>8.5 km</td> <td>ENE</td> </tr> <tr> <td>Kopili River</td> <td>9.0 km</td> <td>NNW</td> </tr> </tbody> </table>			Water Body	Distance	Direction	Umrong Reservoir	3.0 km	West	Langyen Nadi	5.0 km	ENE	Longlai River	6.0 km	SE	Mongle Nadi	8.5 km	ENE	Kopili River	9.0 km	NNW
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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>NIL.</p> <p>However, following Reserved forest is located in study area:</p> <p>Krungming RF (0.2 km in NNW direction)</p>																				

53.9.5 The existing project was accorded Environmental Clearance *vide* SEIAA, Assam letter no. SEIAA.535/2015/EC/86/369 dated 12/01/2016 for the enhancement in clinker production capacity (0.75 MTPA to 0.98 MTPA). Consent to Operate for the existing cement plant was accorded by PCB, Assam *vide* letter WB/SLC/T-637/14-15/363/1419 dated

02/03/2021. The validity of CTO is up to 31/03/2022. Consent to Establish for construction of WHRS has been obtained from PCB, Assam vide letter no. WB/SLC/T-1124/20-21/32 dated 08/12/2020.

53.9.6 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated 12 th January, 2016	Implementation Status as on date	Production as per CTO
1.	Clinker	MTPA	0.98	Operational	0.98

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

S No	Plant Equipment/ Facility	Existing Facilities as per EC dated 12 th January, 2016		Proposed Unit (By optimization & modification)		Final (Existing + Proposed)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Clinker	Kiln: 3400 TPD	0.98 MTPA	1200 TPD	0.54 MTPA	Kiln: 4600 TPD	1.52 MTPA
2.	WHRs	-	-	8 MW	8 MW	8 MW	8 MW

53.9.8 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 (MTPA)			Source	Mode of Transportation / Approx. Distance
		Existing	Additional	Total		
1.	Limestone	1.50	0.81	2.31	Captive Limestone mine (New Umrangso)	By dedicated road /4.5 km
2.	Hill sand	0.07	0.06	0.13	Purchased from nearby area, Umrangso	By road/local (13-50 km)

53.9.9 Existing water requirement is 585 KLD, water requirement is obtained from Longlai River and nearby flowing rivers, streams, Nallahs within a radius of 25 km from the Plant site & permission for the same has been obtained from Dima Hasao Autonomous Council, Haflong vide letter no. DHAC/GAD/282/2011-12/ dated 31/07/2012. The water requirement after the proposed expansion & modification project will be 975 KLD; which is being / will be sourced from Longlai River and nearby flowing rivers, streams, Nallah within a radius of 25 km from the Plant site as per NOC obtained from Dima Hasao Autonomous Council, Haflong.

53.9.10 Existing power requirement is 9 MW is obtained from Assam Power Distribution Company Ltd (APDCL) Grid. The power requirement for the proposed expansion project will be 5 MW, thus total of 14 MW will be sourced from grid power of APDCL & proposed WHRS.

53.9.11 Baseline Environmental Studies:

Period	Dec, 2020 to Feb., 2021
AAQ parameters at 04 locations	PM _{2.5} - 24.4 to 40.2 µg/m ³ PM ₁₀ - 53.2 to 77.6 µg/m ³

Period	Dec, 2020 to Feb., 2021																								
	SO ₂ - 5.8 to 14.2 µg/m ³ NO ₂ - 11.6 to 23.6µg/m ³ CO - 0.56 to 0.89 mg/m ³																								
AAQ modeling (Incremental GLC)	PM ₁₀ - 0.361 µg/m ³ PM _{2.5} - 02.17 µg/m ³ SO ₂ - 3.47 µg/m ³ NOx - 4.49 µg/m ³																								
Ground water quality at 8 locations	pH - 7.22 to 7.82 Total Hardness - 216.97 to 341.5 mg/l Chloride - 82.35 to 137.4 mg/l Fluoride - 0.97 to 1.36 mg/l TDS - 430 to 609 mg/l																								
Surface water quality at 2 locations	pH 7.13 to 7.49 DO - 6.7 to 7.2 mg/l BOD - 5.3 to 9.57 mg/l COD- 17.8 to 25.79 mg/l																								
Noise levels	Noise Level During Day Time - 52.1 to 63.2 Leq dB (A) Noise Level During Night time - 42.3 to 52.5 Leq dB (A)																								
Traffic assessment study findings	<ul style="list-style-type: none"> ▪ Traffic Study has been conducted at SH-20 which is adjacent to plant site ▪ Transportation of raw material fuel & finished product will be done 100 % by road. ▪ Existing PCU is 29 PCU/hr on SH-20 and existing level of service (LOS) is: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Road</th> <th style="text-align: center;">V (Volume in PCU/hr)</th> <th style="text-align: center;">C (Capacity in PCU/hr)</th> <th style="text-align: center;">Existing V/C Ratio</th> <th style="text-align: center;">LOS</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SH-20</td> <td style="text-align: center;">29</td> <td style="text-align: center;">625</td> <td style="text-align: center;">0.04</td> <td style="text-align: center;">A</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ▪ PCU load after proposed project will be 29 (Existing) + 20 (Additional) PCU/hr and level of service (LOS) will be: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Road</th> <th style="text-align: center;">V (Volume in PCU/hr)</th> <th style="text-align: center;">C (Capacity in PCU/hr)</th> <th style="text-align: center;">Existing V/C Ratio</th> <th style="text-align: center;">LOS</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SH-20</td> <td style="text-align: center;">49</td> <td style="text-align: center;">625</td> <td style="text-align: center;">0.07</td> <td style="text-align: center;">A</td> </tr> </tbody> </table> <p>*Note: Capacity as per IRC -. 64- 1990 Guide line for capacity for roads. Conclusion: The level of service will be excellent after including additional traffic due to proposed project.</p>					Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	SH-20	29	625	0.04	A	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	SH-20	49	625	0.07	A
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Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS																					
SH-20	49	625	0.07	A																					
Flora and fauna	No Schedule - I species and endangered flora & fauna have been observed and recorded in the study area.																								

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

Plant Unit	Section	Type of Waste	Waste	Quantity	Treatment / Disposal
Clinkerization Plant	APCE	SW	Dust	-	Dust collected from various APCEs is being/will be totally recycled into the process.
STP	-	SW	STP Sludge	0.1 tonnes / day	Used as manure for greenbelt development / plantation
Plant Maintenance	Different sections	HW	Used Oil & grease (Cat 5.1),	4 MTPM	Will be sold to CPCB registered recycler
			Contaminated Cotton rags (Cat 5.2)	2 MTPM	
			Paint sludge (Cat 21.1)	0.25 MTPM	
MSW	Plant and Colony	Dry	Bottles, paper, cans, textile, etc.	110 Kg / day	MSW generated from the plant and residential colony is being/will be disposed off after segregating into Bio-degradable and non-biodegradable waste. Bio-degradable waste is being/will be composted & will be used as manure in greenbelt development / plantation. Non-biodegradable waste will be disposed off suitably. Concept of waste minimization 3R's (Recycle, Reduce & Recover) scheme will be adopted.
		Wet	Kitchen and canteen/ Green waste		

53.9.13 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers the "Times of India", "The Assam Tribune" and "Dainik Batorikakot" on 19/11/2021
Date of public consultation	21/12/2021
Venue	Plant Premises 16 Kilo, Umrangso, Dist:-Dima Hasao, Assam

Presiding Officer	District Magistrate
Major issues raised	Employment, Environment, Infrastructure development for Health and Education, Socioeconomic activities, etc.

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

S No	Physical activity to be done	Unit of Measurement			Cost (Rs. Cr.)
		01 st Year	02 nd Year	03 rd Year	
1.					
2.	Construction of Class room building at JB Hagjer Degree College at Voarkplak	0	01 JB Hagjer Degree College at Voarkplak	0	0.21
3.	Plantation @ nearby schools	5,000 (JDSVM, LWDMS, Garampani High School)	2500 (Umrangso 19 Kilo L.P school)	2,500 (Umrangso CHC, Karbi and Tularam Club Campus)	0.20
4.	Installation of Solar Street Light in nearby villages	15 (Village Langcherui & Dithur)	15 (Village Miyungpur, Amramlangso)	15 (Village Langmeklu)	0.09
5.	Construction of Ring Wells	02 Village Langcherui, Krungthai, 18 Kilo, 16 Kilo	02 Village Rongkhelan, Chotolokhindong	06 Village Tharvelangso	0.15
6.	Cultural stage at Rongarting	0	01		0.30
7.	Construction of Community hall	01 Village Umrangso, 19 Kilo	01 Village Kamala Bagan	0	0.30
8.	Construction of Road	6 km (3 Meter width) from Umrangso 19 Kilo to Hanjanglangso	3 km (3 Meter width) From Lanka USO road to Amramlangso	2 km (3 Meter width) From Green Market to Nepali Basti	0.21
9.	Ginger and turmeric drying & grinding unit with storage facilities at Umrangso proper	0	0	01	0.12
10.	Skill Training at Calcom Skill centre at Lanka (Local youths from nearby villages like Langcherui, Dithur, Kamala Nagar, Umrangso 19 Kilo will be trained at our Lanka centre with all expenses borne by Company)	12 Persons	12 Persons	12 Persons	0.18
11.	Infrastructure improvement of nearby schools like development of smart classrooms, toilets, improving sanitation facilities, sports facilities and boundary walls etc.	Dithur lower Ip school 9boundary wall & toilet – 1 No)	Lovely Well Memorial School Umrangso, 2 no Girls toilets, 1 no Computer lab (5 no computers) and construction	Lnagmeklu ME School (2 no construction of class rooms-1 and 1 computer lab (5 Nos computer), 2 nos	0.9

S No	Physical activity to be done	Unit of Measurement			Cost (Rs. Cr.)
		01 st Year	02 nd Year	03 rd Year	
			of boundary wall	Girls Toilets, 1 no of RO	
Total cost allocated for the Socio-economic developmental activities					2.66

53.9.14 Existing capital cost of the project was Rs. 728.09 Crores. The capital cost for the proposed expansion project is Rs. 180 Crores & the cost for environmental protection measures is proposed as Rs. 5.50 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion is Rs. 0.50 Crores/annum. The employment generation from the existing and proposed expansion project is 726 Nos.

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
i.	Air & Noise Pollution Control & House Keeping measures	27.24	0.137	4.0	0.28
ii.	Water Pollution Control	0.92	0.016	0.2	0.02
iii.	Environment Monitoring and management	0.79	0.064	0.6	0.08
iv.	Fugitive Emission Control and management	9.11	0.075	0.6	0.07
v.	Greenbelt Development	0.08	0.007	0.2	0.05
	Total	38.14	0.30	5.5	0.5
vi.	Addressal of Public Consultation concerns	2.54	-	2.0	0
Vii	Cost for Wildlife Corpus fund	-	-	0.36	0
	Grand Total	40.68	0.30	7.5	0.5

53.9.15 Existing Greenbelt has been developed in 6.33 ha which is about 31.53% of the then total project area of 20.07 ha with total sapling of 9500 Trees. Proposed greenbelt will be developed in additional 3.30 ha, which is about 33 % of the total project area of 29.14 ha. A 5-15 m wide greenbelt wherever possible, consisting of 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. The total no. of 8250 saplings will be planted and nurtured in 3.30 hectares in 3 yrs and gap plantation with about 7000 saplings in existing greenbelt area of 6.33 ha.

53.9.16 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.

53.9.17 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd., [Sl. No. 44, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0186 valid till 07/02/2023; Rev. 18, January 05, 2022]

Certified compliance report from Regional Office

53.9.18

The Status of compliance of earlier EC was obtained from Integrated Regional Office, Guwahati *vide* letter No. RO - NE/E/IA/AS/IN/78/1408 -1412 dated 03/11/2021 in the name of M/s. Calcom Cement India Ltd. The Action taken report regarding the partially/ non - compliance condition was submitted to RO, MoEFCC, Guwahati *vide* letter No. CCIL/USO/2021-22/09 dated 16th Nov., 2021. MoEFCC (RO), Guwahati evaluated the same and has issued letter dated 27th Oct., 2021. The details of the observations made by RO in report dated 27th Oct., 2021 along with its re - assessment/ present status as furnished by the PP is given below:

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
1.	Fixed type of water sprinklers /dust extractors were found inadequate near the unloading area in the project premises to control dust pollution. Existing system is inadequate & sparse not covering entire area	Partially Complied	12 th Jan., 2016	1	-	Being Complied. Fixed types of water sprinklers are installed and water spraying is being done as and when required. Due to heavy rainfall for 6-8 months, continuous water spraying is required only, during winter season. Water spray Nozzle has been (Fixed type) installed at Coal Transport Belt. Dry Fog system is also installed at unloading area, in this regard.
2.	At the site it was observed that CAAQMS generated data of CO, SO ₂ , NO _x values were not matching with SPCB Servers data, where in CAAQMS has shown the value of CO (104.3 µg), SO ₂ (10.05 µg), and NO _x (1.07) and subsequently SPCB server has shown value of CO (0.20 µg), SO ₂ (1.07 microgram), and NO _x (9.93 µg). Project proponent should have clarified this variation of data.	Partially Complied	12 th Jan., 2016	2	-	Complied. On the date of project site visit CO analyzer was not functioning smoothly and new CO analyzer is procured and has been installed on Nov'21. SO ₂ & NO _x value of CAAQMS is real time, data, whereas and the data which are being, shown by SPCB server are on average basis of 15 min. as desired by SPCB. The latest data and calibration certificate has been submitted.
3.	There are two coal dumps and one garbage dump observed in the project area. (photos 3.4&6). At the storage area of raw coal, neither fixed type of water sprinklers have been	Partially Complied	12 th Jan., 2016	3	-	Being Complied. As per submitted documents by project proponent stated that due to recent law and order situation, they are unable to dispatch material to Lanka, hence material are got piled up at site. However, evacuation in in

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	<p>provided. no undertaken to control of fugitive dust and smog. Within stockyards, covering has not been provided to prevent spread of dust pollution into the neighboring areas. There was no demarcated boundary wall and fencing near the storage coal dumps and garbage dump. Huge amount of coal was dumping in the project site since long period where spontaneous firing was observed on the date of site visit. The placement of materials in the project sites is also haphazard. No toe wall, catch drains, siltation ponds and sedimentation pits to arrest silt and sediment flows from the coal dumps. During rainy season from these coal OB dumps and garbage dump wash water and surface runoff spread into outside the lease boundary area and other natural tributaries which contributed to the water pollution in neighboring river. Project proponent should take all the remedial action with immediate effect</p>					<p>process & expected to be resolved shortly A) The following action plan are being taken to overcome this issue: 1. New covered shed of 30 m x 100m is already constructed 2. New covered shed of 30 m x 60m is under construction and will be completed by Jan'22. Sedimentation pit is already constructed and available. 3. A new covered shed of 35m x127m along with stacker reclaimer is proposed and execution will be done after obtaining EC. B) There is no garbage dump at this location as of now all these materials are collected from different locations of Assam and being used as alternative fuel this is green initiative to support Govt. for usage of waste at their kiln. Covered shed of 3000 sqm is constructed recently and another sedimentation pit will be constructed during upcoming winter season. Project ensure that to construct the same within one month.</p>
4.	<p>The roads connecting the raw material yards to plant needs repair Further, the main road passing through the plant and connecting Meghalaya from one side and Lanka from another site are in very</p>	Partially Complied	12 th Jan., 2016	5	-	<p>Being Complied. Follow up for construction of main road is being done with Govt. of Assam. It may also be noted that to reduce the transportation emission, entire stretch Umgranshu - Lanka Road is being repaired by us</p>

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	bad shape causing huge problems of fugitive dust and also difficulty to travelers. The project may take up the matter with State/ Central authorities for immediate repairing of the road.					since 2015 and about Rs. 11.89 Crores has been incurred till march'21.
5.	Outside plant premises on mines approach road neither black topped nor properly paved / concreted creating muddy condition in wet season and lusty in dry season. Dust extractors / fixed types of water sprinklers arrangement system has not been installed nearby road side.	Partially Complied	12 th Jan., 2016	6	-	Being Complied. All the internal roads with the plant are concreted and Road Sweeping Machine (1 nos), is being used for cleaning of paved roads and proper housekeeping is being maintained to control fugitive dust emission. Regular water sprinkling outside plant premises on mines approach road is being carried out through mobile sprinklers. Mine approach road is dedicated road by the company for transportation of limestone from mines. The repairing of the road is being done as an when required and is served by dedicated mobile water tanker for spring of water to avoid dust during winter season.
6.	Road side operation and movement of transport vehicles is causing heavy concentration of fugitive dust. Project proponent should have installed fixed types of water sprinklers arrangements in this area.	Partially Complied	12 th Jan., 2016	7	-	Being Complied. Fixed type of water sprinklers cannot be installed along the road side outside the plant premises as the road is used by public. However, at frequent interval mobile water tanker is being used for spraying of water.
7.	Project proponent should have submitted the water withdrawal permission letter approval from CGWA state ground water authority. The water flow meters along with running hours	Partially Complied	12 th Jan., 2016	9	-	Partially complied. Project informed that they are not using ground water and therefore approval of CGWA / state ground water authority permission is not required and permission obtained from Dima Hasao Autonomous

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	<p>meters have not been installed and daily water consumption has not been monitored. It was informed that project proponent is being using river water from Longlai River and nearby some natural stream. However, project should carryout study about water availability and extent of water which can be drawn from this river. It was also observed that ETP outlet contained in the surface water where zero discharge process has not been strictly followed by project proponent.</p> <p>Appropriate safeguard measures have not been taken on surface drainage system. Entire drainage system connected to lowland area outside the boundary wall nearby stream and natural waterbody. During the rainy season these industrial wastes liquid gets washed into nearby river connected to Kapili river and through these drains Waste effluent has been discharged into outside the factory premises and zero discharged process has not been strictly followed by project proponent. These observations establish that pollution of natural waterbody and nearby river with the industrial wastes effluent from this</p>					<p>Council, Haflong for drawl of Surface water from Longlai river and nearby flowing rivers, streams. Nallahs. Flow meters are installed at four locations and daily records are maintained. Study for availability of water and extent of water from the river has been carried out and accordingly water is being drawn. In this regard a Water flow meter record report has been submitted to this IRO.</p> <p>The drain was accidentally broken because of heavy rain. The ETP is installed for car washing purposes. Project authority has committed for zero discharge. However, the observation is noted and rectification has been done. During heavy rains, only surface run of storm water is channelized through the storm water drains to outside the plant premises, no effluent is discharged outside the plant premises under any circumstances. Due to land sliding / settlement issues in these areas. we are not able to hold the rain/storm water. Project proponent should have effectively prevented pollution of natural waterbody polluted by industrial wastes and effluent generated from this plant especially during the rains.</p>

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	plant has not been effectively prevented especially during the rains.					
8.	It was observed that the plant has not provided with proper drainage and recycling system for final ETP Outlet, excess water from the final ETP outlet is allowed to flow out directly into the low land area.	Partially Complied	12 th Jan., 2016	11		Being Complied. The drain was accidentally broken because of heavy rain. The ETP is installed for car washing we are committed for zero discharge. However, the observation is noted & rectification has been done. During heavy rains, only surface run off / storm water is channelized through the storm water drains to outside the plant premises, no effluent is discharged outside the plant premises under any circumstances.
9.	It was observed that entire drainage system connected to low land mountain slope of the outside project premises. There is no any protection measure or recycle drainage system has been constructed surrounding this project area to prevent industry wastes and effluent. During the rainy season these industrial wastes gets washed into discharged into outside premises and Zero discharge process has not been strictly followed by project proponent.	Partially Complied	12 th Jan., 2016	12		Being Complied. No natural water course is disturbed by any activity. In addition, due to the terrain condition, storm water drains with check filters and retaining walls have been constructed to channelize the rain water. due to land sliding / settlement issues in these areas, project authorities are not able to hold the rain/ storm water. Only surface run off / storm water is channelized through the storm water drains outside the plant premises, no effluent is discharged outside the plant premises under any circumstances.

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
10	Daily water consumption record register has not maintained by project area.	Partially Complied	12 th Jan., 2016	13		Being Complied. Project Proponent has submitted the daily water consumption record data in this IRO, Guwahati
11	There is no any protection measures or recycling drainage system has been constructed surrounding this project area to prevent this industry waste & effluent.	Partially Complied	12 th Jan., 2016	14		Being Complied. There is no river/ nallah / water reservoir in close proximity of the plant. The nearest Umrangso reservoir bis at 3 km in West Direction. Langyein Nadi is at about 5 km in ENE direction. Longlai river is at 6km in SE direction. Mongle Nadi is at 8.5 km in ENE direction and kopili river is at 9 km in NNW direction from the plant. No water is discharged out of plant boundary. Zero discharge is strictly adopted. Waste water is treated in STP & ETP and treated water is utilized for greenbelt development / dust suppression. Permanent drain along with water storage tank has been constructed with PR masonry to prevent mixing of suspended particles and solid wash offs with rain water. Due to land sliding/settlement issues in these areas, project authorities are not able to hold the rainstorm water. Study has been conducted by IIT Guwahati & measures has been implemented in phase manner.
12	Project proponent should submit Govt. authorized dealers / vendors name in Assam or North East India supply for disposal of hazardous	Partially Complied	12 th Jan., 2016	15		Being Complied. Scrapped automobiles batteries are sold to the authorized vendors/recycler as per Batteries (Management and Handling) Rules,

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	waste, spent oil and batteries sold.					2001. Batteries are sold to authorize vendor Ms. Shree Sai Varnika industries authorized by SPCB: Assam vide letter no. WB/OTWAHW-159/11-12/129 dated 204 March 2018.
13	At the project site it was observed that as requisite, the greenbelt/ plantation has not yet been completely developed along the periphery of the campus. There is scope for development of green belt in most of the areas of the project which needs to undertake on priority in time bound manner. To reduce air pollution in the project areas. some high value index air pollution tolerant native species should also be planted in the periphery of the campus and other available areas in project to prevent and reduce the dust pollution.	Partially Complied	12 th Jan., 2016	17		Being Complied. Greenbelt / plantation has been developed within the plant boundary over an area of 6.33 ha as per CPCB guideline in consultation with the local DFO. Total 9,500 saplings with 26 nos. of species have been planted within the plant boundary.
14	Project proponent should have submitted the approved signed copy of action plan micro action plan and their implementation status on CREP to this IRO, Guwahati.	Partially Complied	12 th Jan., 2016	21		Being Complied. Project proponent has been submitted the approved signed copy of action plan and their implementation status on CREP to this IRO. Guwahati Recommendations in the charter on CREP is also being followed and implemented.
15	Year Wise and item wise capital and recurring expenditure on this should be reported to Integrated Regional Office Guwahati. Third party evaluation of these activity should be carried out. The status	Partially Complied	12 th Jan., 2016	22		Partially complied. Public hearing implementation status report has been submitted to this IRO. Guwahati, and year wise recurring expenditure also submitted to this office. However, third party evaluation of these activity should be

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	of implementation of issue raised in the public hearing should also be submitted.					carried out.
16	The transfer of EC for Cement plant from else while owner of M/s. Calcom Cement Ltd. to present Owner M/s. Dalmia Bharat Cement Limited is yet to be approved by the Ministry and application has been submitted.	Partially Complied	12 th Jan., 2016	-	1	Complied. As per submitted documents by project proponent stated that transfer of EC is not applicable as name of the company has not been changed. However, change of management of CCIL were informed to MoEFCC during extension of validity of EC. and also, Expansion of EC from 0.75MTPA to 0.98 MTPA obtained from SEIAA in Jan 2016 in the name of CCIL was taken in the regime of current management of i.e., DCBL. Thereafter, there has not been any change in the name of Company neither Management
17	It was also observed that along with running plant some expansion modification of civil work is being carried out by project proponent without obtaining the approval from the the SPCB/SEIAA Assam.	Partially Complied	12 th Jan., 2016	-	2	Being complied. Company is in process of installing Waste Heat Recovery System (WHRS). It is exempted from obtaining prior EC as per MOEFCC Notification S.O. 1599 (E) dated 25.06.2014 and subsequently clarified vide O.M. dated 23rd Jan, 2019. As per the notification construction work as started after duly obtaining CTE from PCB. Assam vide letter no. WB/SLC/T-1124/2021/32dated 08.12.2020. CTE is attached as an Annexure-20.

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
18	Constructed ETP was not in scientific way. It was observed that ETP water and oil grease trap are not properly separated, and ETP outlet drain was not found in recycling process.	Partially Complied	12 th Jan., 2016	-	4	Complied. ETP has been modified and rectified to maintain Zero Liquid discharge
19	Project has not constructed Govt. approved rainwater harvesting system for recharge of the ground water aquifer as yet.	Partially Complied	12 th Jan., 2016	-	7	Being Complied. Recharge of Ground water aquifer is not feasible in the area because of the terrain and high altitude. The area falls under sake ne for ground water development. The area receives very high rainfall. The area is surrounded by rugged and mountains rain exhibits an undulating topography with cliff faces covered with bushes & trees. Looking into the site conditions, it is not feasible to harvest rain water. However, storm water drains along with retaining walls have been constructed to channelize the rain water. Additionally, project has constructed 40 nos. of ring well & water tank and no check dam in the surrounding villages for collection of rainwater and to support the local community. However, they have constructed 5 Nos of rainwater harvesting pit all around plant.
20	Eco-development activity including community welfare measures in the project area for the overall improvement or the environment was not able to shown by project proponent on the date of site visit. A copy of eco-development plan	Partially Complied	12 th Jan., 2016	-	8	Complied. Company has undertaken various eco-developmental measures during the period 2017 to 2021 with an expenditure of Rs. 3.56 Crores. has been incurred towards various social welfare measures from FYSIS till March 21, and list of carried out activity has been submitted to this IRO

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
	approved by PCB / SIEAA, Assam should be submitted to IRO, Guwahati as stipulated in the condition.					Guwahati.
21	Project proponent must submit the list of personnel's along with their qualification looking after the environment management cell.	Partially Complied	12 th Jan., 2016	-	10	Complied. A common Environmental Cell is established at the plant for looking after all the environmental matters of plant and mines. The Environmental Cell is under the control of Deputy General Manager reporting directly to the Unit Head. Laboratory facilities are limited as Environmental Monitoring is carried out by third party laboratories approved with PCB, Assam. The list of personnel's along with their qualification looking after the environment management cell has been submitted.
22	No separate account has been maintained by project proponent on environmental protection measures. List of plantation data should be submitted to IRO, Guwahati.	Partially Complied	12 th Jan., 2016	-	11	Complied. Separate account in SAP and budget as earmarked in EC towards EMP is allotted by the Unit at the start of each Financial Year. The amount earmarked is not spent for any other purpose. In case, the expenditure exceeds / expected to exceed the earmarked budgetary provisions necessary budget is allocated on priority. Rs. 38.14 Cr. have been spent towards capital cost in installing various pollution control devices and implementation of other environmental protection measures. Recurring cost of about Rs.1.79 Crores has been spent for the maintenance of pollution control devices from FY 15 till FY 21. Expenditure of Rs. 3.56 crore has been made towards Socioeconomic

S. No.	Partially Compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO, Guwahati
			EC date	Specific	General	
						developmental activities from FYIS till March 2021. List of total 26 nos. species of plantation data has been submitted to this office.

53.9.19 During the meeting, project proponent submitted written submission on the following points:

- i. The general topographical elevation of plant site ranges from 469 to 544 m AMSL. The slope is towards east.
- ii. Financial support for under privileged students of Umrangso area will be covered under CSR and equivalent amount of 0.9 crores will be spent towards infrastructure development of nearby school. The revised action plan has been updated at para no 53.9.13.

Observations of the Committee

53.9.20

- i. The Committee noted that the EIA/EMP report for the expansion project is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- ii. 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 found it satisfactory.
- iii. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of all the existing EC and found it's satisfactory except two conditions are partially complied.
- iv. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.

Recommendations of the Committee

53.9.21

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 the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated cement plants based on project specific requirements:

A. Specific Conditions:

- i. Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- ii. 975 KLD water shall be sourced from Langai River flowing 6 km from site. Ground water withdrawal is not permitted.
- iii. Green belt shall be developed in 9.63 ha area all along the entire periphery of the area with a density of 2500 trees per ha by December, 2023 as committed. Additionally, 20000 trees shall be planted outside the project site shall be brought under avenue plantation as committed by the proponent.

- iv. Thermal Energy consumption for the kiln shall be less than 720 Kcal/t for clinker as committed by the Project Proponent.
- v. DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm³ by using best available technology.
- vi. 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.
- vii. Slip roads shall be provided at the gates and along crossings on main roads.
- viii. 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.
- ix. 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.
- x. 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.
- xi. Project proponent shall develop separate drainage system for storm water and industrial waste water and effectively prevent pollution of natural waterbody.

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 (CEMS) at process stacks to monitor stack emission as well as 4 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 labs recognized under Environment (Protection) Act, 1986.
- iii. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- iv. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;
- v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;
- vi. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, and 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; 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 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.

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.

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.
- 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 report 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 environmental 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, NO_x (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. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

53.10 Proposed Modification in Existing Plant by installing Auxiliary Facilities without increasing Plant Capacity by **M/s. ArcelorMittal Nippon Steel India Limited (AMNS)** located at Hazira Notified Industrial Area at Village Hazira, Taluka Choryasi, **District Surat, Gujarat** [Online Proposal No. IA/GJ/IND/28742/2014, File No. J-11011/44/2004-IA II(I)]-**Environment Clearance – regarding.**

53.10.1 M/s. AM/NS India Ltd has made an online application vide proposal no IA/GJ/IND/28742/2014 dated 05/02/2022 along with copy of EIA/EMP report, Form – 2 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

53.10.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
24/12/2020	28 th meeting of EAC held on 18 th January 2021	Terms of Reference	08/02/2021	07/02/2024

53.10.3 The project of M/s ArcelorMittal Nippon Steel India Limited is located in Surat-Hazira Road, Village: Hazira, Tehsil: Chorasi, District: Surat, State: Gujarat is for Proposed

Modification in Existing Plant by installing Auxiliary Facilities without increasing Plant Capacity (9.6 million tons).

53.10.4 Environmental Site Settings:

Sr. No.	Particulars	Details	Remarks																											
i.	Total land	770 ha [Private land: 770 ha]	Land use: Industrial - Hazira Notified Industrial Area.																											
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	No additional land is required for the proposed modernization project																												
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>Hazira</td> <td>0.07 km</td> <td>South</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Hazira	0.07 km	South	There is no R&R activity involved																					
Habitation	Distance	Direction																												
Hazira	0.07 km	South																												
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>21° 5'48.99"N</td> <td>72°39'24.95"E</td> </tr> <tr> <td>B</td> <td>21° 6'10.39"N</td> <td>72°37'40.26"E</td> </tr> <tr> <td>C</td> <td>21° 7'9.01"N</td> <td>72°37'50.26"E</td> </tr> <tr> <td>D</td> <td>21° 7'33.55"N</td> <td>72°38'41.73"E</td> </tr> <tr> <td>E</td> <td>21° 8'7.52"N</td> <td>72°39'17.79"E</td> </tr> <tr> <td>F</td> <td>21° 7'2.17"N</td> <td>72°39'18.42"E</td> </tr> <tr> <td>G</td> <td>21° 6'33.77"N</td> <td>72°39'11.85"E</td> </tr> <tr> <td>H</td> <td>21° 6'33.35"N</td> <td>72°39'35.31"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	21° 5'48.99"N	72°39'24.95"E	B	21° 6'10.39"N	72°37'40.26"E	C	21° 7'9.01"N	72°37'50.26"E	D	21° 7'33.55"N	72°38'41.73"E	E	21° 8'7.52"N	72°39'17.79"E	F	21° 7'2.17"N	72°39'18.42"E	G	21° 6'33.77"N	72°39'11.85"E	H	21° 6'33.35"N	72°39'35.31"E	
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G	21° 6'33.77"N	72°39'11.85"E																												
H	21° 6'33.35"N	72°39'35.31"E																												
v.	Elevation of the project site	6 m maximum above mean sea level																												
vi.	Involvement of Forest land if any.	Nil	No forest land is involved																											
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) 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>Tapi Estuary</td> <td>0.5 km</td> <td>East</td> </tr> <tr> <td>Arabian sea</td> <td>2 km</td> <td>South</td> </tr> <tr> <td>Hazira pond</td> <td>2.2 km</td> <td>South</td> </tr> <tr> <td>Suvali pond</td> <td>3.3 km</td> <td>NNW</td> </tr> <tr> <td>Mora pond</td> <td>2.7 km</td> <td>North</td> </tr> <tr> <td>Junagam Pond</td> <td>1.4 km</td> <td>West</td> </tr> </tbody> </table>	Water body	Distance	Direction	Tapi Estuary	0.5 km	East	Arabian sea	2 km	South	Hazira pond	2.2 km	South	Suvali pond	3.3 km	NNW	Mora pond	2.7 km	North	Junagam Pond	1.4 km	West	1. As per the letter received from additional collector no flood occurred in last 50 years 2. As per the hydrographic chart the site is 2 meter above maximum tide level of Tapi						
Water body	Distance	Direction																												
Tapi Estuary	0.5 km	East																												
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Junagam Pond	1.4 km	West																												

Sr. No.	Particulars	Details	Remarks
			estuary
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil List of Reserved and protected forests: <ul style="list-style-type: none"> ▪ Hazira Reserve Forest 1.72 SSW ▪ Open Forest near Dumas Village 5.42 SE ▪ Open Forest near Vasava Village 6.40 NNW 	
ix	Existence of sand dunes, mangroves mud flats	The project premises were identified with the help of GPS data derived from satellite image and No Mangrove species were found to be present within the project premises. The presence of mangrove species has been observed in areas outside the AMNS premises, within the study area and far away from project site. The species <u>Avicennia marina</u> is found to be dominant in these areas	

53.10.5 The existing project was accorded environmental clearance vide lr.no. J-11011/381/2014-IA II (I) dated 9/03/2016. Consent to Operate for the existing unit was accorded by Gujarat Pollution Control Board vide lr.

- i. GPCB/CCA-SRT-340(15)/ID_20680-587320 (HRC Division) dated on 01/04/2021, The validity of CTO is up to 31/12/2024,
- ii. GPCB/CCA-SRT-1190(6)/ID_14186/587373 (CONARC Division) dated on 01/04/2021, The validity of CTO is up to 31/12/2024,
- iii. GPCB/CCA-SRT-1082(5)/ID_28839/586881 (Pipe mill Division) dated on 25/03/2021, The validity of CTO is up to 31/12/2024,
- iv. GPCB/CCA-SRT-1162(2)/ID_22968/586882 (Plate mill Division) dated on 25/03/2021, The validity of CTO is up to 31/12/2024.
- v. GPCB/CCA-SRT-1599/ID_24199/598293 (Power Division) dated on 18/08/2021, The validity of CTO is up to 31/03/2024.

53.10.6 Implementation status of the existing EC - EC 2016

Sl. No.	Plant / Product	Unit	Capacities as per EC dated 9th March 2016			Proposed Modification for which EC is being sought	Total capacity	Remarks
			Existing	Proposed	Total Capacity			
1	HBI Plant (DRI Mod I to VI)	MTPA	7.83	-4.0	3.83	4.0	7.83	Earlier planning was to remove HBI Modules (1 to 4) totaling 4 MTPA and

Sl. No.	Plant / Product	Unit	Capacities as per EC dated 9th March 2016			Proposed Modification for which EC is being sought	Total capacity	Remarks
			Existing	Proposed	Total Capacity			
								replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity.
2	Blast Furnace (BF)	MTPA	2.04	3	5.04	-3	2.04	Existing operational BF of capacity 2.04 MTPA in operation, 3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT, now dropped.
3	Sinter Plant	MTPA	1.48	7	8.48	-7	1.48	7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. Now, will establish the 7.0 MTPA Plant through Upstream Expansion from 9.6 to 15.6 MTPA - approved vide 2016 EC. (It will comprise of 02 number plants).
4	Coke Oven (Recovery Type)	MTPA	1.2	1.35	2.55	-1.2	1.35	1.2 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. *2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed.
5	Air Separation Plant	Nm ³ /hr	3,60,544	64,200	4,24,744	0	4,24,744	3,60,544 Nm ³ /hr plants are in operations, balance 64200 Nm ³ /hr plant

Sl. No.	Plant / Product	Unit	Capacities as per EC dated 9th March 2016			Proposed Modification for which EC is being sought	Total capacity	Remarks
			Existing	Proposed	Total Capacity			
								will be established as per 2016 EC
6	Steel Melt Shop - (EAF 4 Nos.)	MTPA	4.6*	0	4.6	0	4.6	Earlier planning was to remove 4.6 MTPA EAF -4 nos. and replacing with BOF-3 nos. in its place but that could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original plant configuration.
8	Steel Melt Shop-2	MTPA	5	0	5	0	5	5.0 MTPA plant in operation
9	Corex Plant	MTPA	1.7	0	1.7	0	1.7	1.7 MTPA plant in operation
10	Lime Plant (Lime/Dolime)	MTPA	0.93	0	0.93	0.27	1.2	(1 x 200+ 1 x 500 TPD) = 0.27 MTPA new plants are proposed
11	CPP	MW	604	0	604	-48	556	31 MW CPP and 525 MW CPP in operation
12	Plate Mill	MTPA	1.5	0	1.5	0	1.5	1.5 MTPA plant in operation
13	Pellet plant	MTPA	4	0	4	-4	0	Dropped
14	CSP	MTPA	3.5	0	3.5	0	3.5	3.5 MTPA approved vide 05.07.2010 EC
	HRC	MTPA	4.5	0	4.5	0	4.5	4.5 MTPA approved vide 29-05-2008 EC
								Total 8.0 implemented, but inadvertently mentioned 3.5 MTPA only in 2016 EC
	Rebar mill	MTPA	1.6	0	1.6	-1.6	0	Dropped
	Wire rod mill	MTPA	0.7	0	0.7	-0.7	0	Dropped
15	Slab caster	MTPA	4.9	0	4.9	0	4.9	In operation
	Billet caster	MTPA	2.37	0	2.37	-2.37	0	Dropped
16	CRM-1 & 2	MTPA	1.5	0.54	2.04	3.2	5.24	CTO taken for additional 0.54 MTPA from GPCB & new CRM of 3.2 MTPA is proposed
17	Jetty	Meter	734 + 456	0	734 + 456	0	1190	As per 2016 EC. 734 and 456 meters capacity was

Sl. No.	Plant / Product	Unit	Capacities as per EC dated 9th March 2016			Proposed Modification for which EC is being sought	Total capacity	Remarks
			Existing	Proposed	Total Capacity			
								sanctioned in 2006 EC. This was implemented although inadvertently mentioned 734 m only in 2016 EC.
18	Waste Heat Recovery based Power Plant	MW	25	20	45	0	45	25 MW in operation
Pipe Mill								
19	H Saw Pipes	MTPA	0.15	0.15	0.30	0	0.30	0.15 MTPA as per 2016 EC and CTO taken for additional 0.15 MTPA from GPCB.
	L Saw Pipes	MTPA	0.33	0	0.33	0	0.33	In operation
	Coating Plant	MTPA	0.48	0	0.48	0	0.48	In operation – CTO taken from GPCB

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

Sr. No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	Config.	Capacity	Config.	Capacity	
		Config.	Capacity	Config	Capacity	Config.	Capacity	Capacity					
1	HBI Plant (DRI Mod I to VI) (in MTPA)	Mod I-IV: 4.0 Mod:V - 1.98 Mod VI: 1.85	7.83 (- 4.0* =3.83)	Mod I-IV: 4.0 Mod:V - 1.98 Mod VI: 1.85	7.83		-	7.83	-	-	Mod I-IV: 4.0 Mod:V - 1.98 Mod VI: 1.85	7.83	* Earlier planning was to remove HBI Modules (1 to 4) totalling 4 MTPA and replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity. CTO has been sanctioned for 7.83 MTPA.
2	Blast Furnace (BF) (in MTPA)	1 x 2.04 (2200 m3) 1 x 3.0	5.04	1 x 2.04	2.04*	1 x 3.0	3.0#	2.04	-	-	1 x 2.04	2.04	# 1 x 3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT, now dropped.
3	Sinter Plant	1x 1.48 (1 x 120 m2) 2 x 3.5 (~ 325 m2 each)	8.48	1 x 1.48	1.48	2 x 3.5	7.0*	1.48	-	-	1x 1.48 (1 x 120 m2)	1.48	* 7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. Now, will establish the 7.0 MTPA Plant through Upstream Expansion from 9.6 to 15.6 MTPA - approved vide 2016 EC. (It will comprise of 02 number plants).

MoM of 53rd meeting of the Re-constituted EAC (Industry-I) held on 10 -11th February, 2022

Sr. No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	Config.	Capacity	Config.	Capacity	
		Config.	Capacity	Config	Capacity	Config.	Capacity	Capacity					
4	Coke Oven (Recovery Type)	1 x 1.20 1 x 1.35	2.55	2 x 59 Ovens	1.35#	-	1.20*	-	-	-	1 x 1.35	1.35	# Under implementation *1.2 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. *2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed.
5	Air Separation Plant (Nm3/Hr)	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen) 1 X 2200 TPD	424,744	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen)	360,544	1 X 2200 TPD*	64,200*	360,544	-	-	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	424,744	* 64200 Nm3/hr plant will be established as per 2016 EC
6	SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	4.6*	4 x 150 MT Heat size	4.6*		-	4.6	-	-	4 x 150 MT Heat size	4.6	*Earlier planning was to remove 4.6 MTPA EAF -4 nos. and replacing with BOF-3 nos. in its place but that could not be implemented due to fund constraints and legal

MoM of 53rd meeting of the Re-constituted EAC (Industry-I) held on 10 -11th February, 2022

Sr. No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	Config.	Capacity	Config.	Capacity	
		Config.	Capacity	Config	Capacity	Config.	Capacity	Capacity					
													cases at the NCLT. Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original capacity. CTO has been sanctioned for 4.6 MTPA.
7	SMS-2	4 x 200 MT Heat size	5.0	4 x 200 MT Heat size	5.0		-	5.0	-	-	4 x 200 MT Heat size	5.0	
8	Corex Plant	2 x 0.85	1.7	2 x 0.85	1.7		-	1.7	-	-	2 x 0.85	1.7	
9	Lime Plant (Lime/Dolime)	1 x 0.45 (4 x 300 TPD) 1 x 0.48 (3 x 500 TPD)	0.93	1 x 0.45 1 x 0.48	0.93		-	0.93	1 x 0.27* (1 x 200 + 1x 500 TPD)	0.27	1 x 0.45 1 x 0.48 1 x 0.27*	1.2	
10	Plate Mill	1 x 1.5	1.5	1 x 1.5	1.5		-	1.5	-	-	1 x 1.5	1.5	
11	CSP and HRC	1 x 3.5	3.5*	1 x 3.5 1 x 4.5#	8.0*		-	8.0	-	-	1 x 3.5 1 x 4.5#	8.0	* 3.5 MTPA approved vide 05.07.2010 EC # 4.5 MTPA Approved vide 29-05-2008 EC Total 8.0 implemented, but inadvertently mentioned 3.5 MTPA only in 2016 EC
12	CRM	1 x 1.5	1.5	1 x 1.5 1 x 0.54*	2.04			2.04	1 x 2.2 1 x 1.0	3.2	1 x 1.5 1 x 0.54* 1 x 2.2 1 x 1.0	5.24	* CTO taken for additional 0.54 MTPA from GPCB.
13	Pipe mill:												

Sr. No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	Config.	Capacity	Config.	Capacity	
		Config.	Capacity	Config	Capacity	Config.	Capacity	Capacity					
	H Saw Pipes (in MTPA)	1 x 0.15	0.15	1 x 0.15 1 x 0.15*	0.30		0	0.3	-	-	1 x 0.15 1 x 0.15*	0.30	0.15 MTPA as per 2016 EC *CTO taken for additional 0.15 MTPA from GPCB. (0.15+0.15=0.30).
	L Saw Pipes (in MTPA)	1 x 0.33	0.33	1 x 0.33	0.33		0	0.33	-	-	1 x 0.33	0.33	
14	CPP (in MW)	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 1 X 48 MW	604	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW	556	1 x 48 MW	48	556	-	-	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW	556	
15	Waste Heat Recovery based Power Plant (in MW)	1 x 25 MW 1 x 20 MW	45	1 X 25 MW	25	1 X 20 MW	20	25	-	-	1 x 25 MW 1 x 20 MW	45	
16	Jetty (length in m)	456 m+ 734 m	1190 m	456 m + 734 m	1190 m	-	-	734 m*	-	-	456 m + 734 m	1190 m	* 734 and 456 meters capacity was sanctioned in 2006 EC. This was implemented although inadvertently mentioned 734 m only in 2016 EC and CTO also mentioned the same 734m length.

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

Sr No	Name of Raw Material	Requirement, TPA			Source	Distance (W.R.T. Plant) In Km	Mode of Transportation
		Existing	Proposed	Total			
1	DR Grade Pellets	1,18,23,300	-	1,18,23,300	AMNSI's pelletization plants located at Vizag and Paradeep	Vizag: 1170	Sea Route
2	BF Grade Pellets	54,00,000	-	54,00,000		Paradeep: 1450	
3	Oxide Fines	1,85,000	-	1,85,000	Goa, Odisha, NMDC fines	Goa: 650 Odisha : 1450	Sea Route
Total Iron Bearing Material		1,74,08,300	-	1,74,08,300			
4	Coal-PCI-BF	4,08,000	1,02,000	5,10,000	Australia (mainly) and Canada, USA and Russia	Australia: 7500	Sea Route
5	Coal for Corex	27,70,000	0	27,70,000		Canada: 11000	
6	Metallurgical Coal	0	19,57,500	19,57,500		Russia: 5500	
7	Coke	12,55,000	12,55,000	0			
Total Coal & Coke		44,33,000	8,04,500	52,37,500			
8	BF and Sinter Grade Flux (Limestone + Dolomite + Pyroxenite + Quartzite)	6,90,000	0	6,90,000	Dubai and Oman	Dubai: 1800 Oman: 1700	Sea Route
9	SMS grade Limestone and Dolomite	13,23,000	5,40,000	18,63,000			
Total Flux and Additives		20,13,000	5,40,000	25,53,000			

Note: In case of shutdown of coke oven plant, the unit will procure coke from outside agency.

53.10.9 The existing water requirement is 145,839.00 m³/day, water requirement is obtained from Tapi river and permission for the same has been obtained from Narmada Water Resources Water Supply and Kalpsar Department vides letter no -248/1444 dated 27/07/2021. The water requirement for the proposed project is estimated as 7,489 m³/day, out of which 7,489 m³/day of fresh water requirement will be obtained from the Tapi river. The permission for drawl of surface water is obtained from Narmada Water Resources Water Supply and Kalpsar Department vides letter no -248/1444 dated 27/07/2021.

53.10.10 The existing power requirement of 1038 MW is obtained from Power system operation corporation limited. The power requirement for the proposed project is estimated as 125 MW. Power is being sourced from Captive generation 556 MW (500+31+25), From EPHL 270 MW and additional (337 MW) will be availed from 400 KV- PSOCL (National Grid).

53.10.11 Baseline Environmental Studies:

Period	1 st October 2020 to 31 st December 2020	23 rd November 2021 to 25 th December 2021
AAQ parameters at 8 Locations	PM _{2.5} = 20.21 to 67.90 µg/m ³ PM ₁₀ = 43.12 to 124.85 µg/m ³ SO ₂ = 12.44 to 42.20 µg/m ³ NO _x = 16.11 to 48.30 µg/m ³ CO = 0.1 to 1.21 µg/m ³	PM _{2.5} = 22.0 – 57.0 µg/m ³ PM ₁₀ = 51.0 – 136.0 µg/m ³ SO ₂ = 5.2 – 8.6 µg/m ³ NO _x = 13.1 – 16.5 µg/m ³ CO = 0.676 - 1.256 mg/ m ³
Incremental GLC level	PM ₁₀ = 20.7 µg/m ³ (Level at 1.2 km in SW Direction) SO ₂ = 13.5 µg/m ³ (Level at 1.2 km in SW Direction) NO _x = 8.43 µg/m ³ (Level at 1.2 km in SW Direction)	Nil
Ground water quality at 8 locations	pH: 7.08 to 7.61, Total Hardness: 450 to 530 mg/l, Chlorides: 130 to 302 mg/l, Fluoride: 0.42 to 2.13 mg/l. Heavy metal likes Mercury, Lead, Nickel, Zinc found bellow detectable limits.	Nil
Surface water quality at 8 locations	pH: 7.12 to 8.62; DO: 4.1 to 5.1 mg/l and BOD: <5 mg/l. COD from 8.1 to 40.3 mg/l	Nil
Noise levels Leq (Day and Night)	41.0 to 65.0 for the day time and 45.0 To 51.0 for the Night time.	Maximum noise levels recorded during the day time 66.9 Leq dB(A) and during night time 65.8 Leq dB(A).
Traffic assessment study findings	Total Hazira to Surat: PCU / hr after proposed modification: 148 (3503 Nos.) Total Surat to Hazira: PCU / hr after proposed modification: 162 (3835 Nos.)	
	Type of Vehicle	Traffic Scenario after proposed modification
	Road Type	Surat to Hazira to Surat (2+2 lane)
	Capacity as per IRC (PCU's /day)	12500
	Existing total volume in a day (Nos.)	7338
	Existing volume / capacity ratio	0.58
	Level of Service	C 'Good'
	Conclusion: The level of service will be "C" after including additional traffic due to proposed project.	
Flora and fauna	Peacock, White rumped vulture, leopard, white spoonbill Conservation plan has been prepared and approved by Principal Chief Conservator of Forest (PCCF).	

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

Solid Waste generation and its management

Sr. No.	Solid Waste	Quantity (TPA)			Treatment before Disposal	Action Plan for Disposal / Management
		Existing	Modification	Total		
1	HBI (Module I-VI)					
	Iron Ore Fines	10,91,248	0	10,91,248	Screening / Drum mixer	Consumed in Sinter Plant
	DRI Fines	1,69,000	0	1,69,000	As received	Consumed in SMS & Sales to authorized agencies / units for Iron recovery
	Sludge Pond Fines	2,60,000	0	2,60,000	Micro Pelletisation	Used as a raw material in micro palletization plant and recycled to sinter plant / Sales for recycling & Fe recovery units.
	Quartzite Fines	84,000	0	84,000	As received	Sales for Iron recovery units
2	HRC Plant - Caster, HSM, CSP & Plate Mill					
	Mill Scale	3,00,600	0	3,00,600	Oil skimming	Used in Sinter Plant & BF plant/ Sales for thermic welding manufacturing application/ recyclers/ steel plants.
3	Lime Plant					
	Lime Stone/Dolomite Chips	3,75,000	0	3,75,000	Screening	Used in BF/ Corex/ Sinter plant/ SMP1&2 as Raw Material / Sales for application in cement plant
	Lime Fines / Do lime Fines	1,26,000	0	1,26,000	Screening	Used in CRM ETP/ Sinter Plant/ Micro-Pelletization/ Sales for application in cement plant, brick plant
	Off Grade Lime/Dolomite	40,000	0	40,000	Screening	Using in Sinter Plant, CRM & Corex / Sales for application in cement plant
4	CRM - Iron Oxide	8,000	22800	30800	-	Consumed in Sinter Plant/ External Sales to authorized vendor for

Sr. No.	Solid Waste	Quantity (TPA)			Treatment before Disposal	Action Plan for Disposal / Management
		Existing	Modification	Total		
						recycling, paint & chemical industry.
5	SMP-1 (EAF)					
	Slag (LF Slag, Desulphurization (HMDP) Slag, Furnace Debris)	11,76,000	0	11,76,000	Cooling/magnetic separation/sorting	Used for internal roads as a subbase material Used for internal railway as ballast material Under CSR activities used for making internal village roads / Sales for road making, construction works, as an aggregate, land filling, Bricks, Cement, paver blocks /used in sinter Plant / metal Separation.
	Iron Fines	84,000	0	84,000	Micro pelletisation	Used as a raw material in micro palletization plant and recycled to sinter plant
	Scarfig Waste	2500	0	2500	As received	Use in sinter Plant/ Sales for recycling application
	Plant Fines (Combustion Dust + Furnace Debris + Muck Waste)	45,000	0	45,000	As received	Use in sinter Plant/ Sales for recycling application
6	SMP-2 (CONARC)					
	Slag (LF Slag, Desulphurization (HMDP) Slag, Furnace Debris)	10,00,000	0	10,00,000	Cooling/magnetic separation/sorting	Used for internal roads as a subbase material Used for internal railway as ballast material Under CSR activities used for making internal village roads / Sales for road making, construction works, as an aggregate, land filling, Bricks, Cement, paver

Sr. No.	Solid Waste	Quantity (TPA)			Treatment before Disposal	Action Plan for Disposal / Management
		Existing	Modification	Total		
						blocks /used in sinter Plant / metal Separation.
	Iron Fines	96,000	0	96,000	Micro pelletisation	Used as a raw material in micro palletization plant and recycled to sinter plant
	Scarfing Waste	2500	0	2500	As received	Use in sinter Plant/ Sales for recycling application
	Plant Fines (Combustion Dust + Furnace Debris + Muck Waste)	45,000	0	45,000	As received	Use in sinter Plant/ Sales for recycling application
7	Refractories: MgO-C, Castable, Magnesite bricks, Alumina bricks, Tundish Grog, High Alumina Grog	32,000	-	32,000	-	Sales to Authorized Agencies / Units
8	COREX					
	Granulated Slag	6,40,000	0	6,40,000	Natural Drying	Being sold to authorized vendors
	CDP /De-dusting Dust	94,000	0	94,000	-	Consumed in Sinter Plant
	Limestone/ Dolomite Fines	50,000	0	50,000	Screening	Consumed in Sinter Plant /PCI in BF
	Ore + Pellet Fines	3,50,000	0	3,50,000	Screening	Consumed in Sinter Plant
	Sludge	1,20,000	0	1,20,000	Thickening/ de-watering/ granulation	Used as a raw material in Granules and recycled to sinter plant / Sales for Brick manufacturing, Coal blending, road making, land filling, Cement.

Sr. No.	Solid Waste	Quantity (TPA)			Treatment before Disposal	Action Plan for Disposal / Management
		Existing	Modification	Total		
	Coal Fines	11,75,000	0	11,75,000	Screening/ Briquetting/ Drying	Used in Blast Furnace/ Sales to authorized vendor / Briquetting for recycling back to Corex.
	Coke Fines	54,000	0	54,000	Screening/ crushing	Used in Sinter plant / SMP1 / SMP 2
	Hot metal skull	6000	0	6000	Lancing	Sales to Authorized Agencies / Units
9	Plate Mill -Shots Dust	0	65	65	Micro pelletisation	Consumed in sinter plant/ TSDF Site.
10	Blast Furnace					
	Granulated Slag	6,40,000	0	6,40,000	Natural Drying	Being sold to authorized vendor
	Air Cooled Slag	1,28,000	0	1,28,000	Crushing/ screening	Used for internal roads / Sold to for road making, rockwool manufacturing, construction works..
	BF Return Fines	6,25,000	0	6,25,000	As received	Consumed in Sinter Plant
	Bag Filter Dust	12,000	0	12,000	SAP granulation	Consumed in Corex Plant
	Flue Dust (Dust Catcher Fines)	70,000	0	70,000	As received	Consumed in Sinter Plant
	Coke Fines	1,26,000	0	1,26,000	Crushing	Used in Sinter plant and SMP1 & SMP 2
	Lump ore + Pellet fines	6,00,000	0	6,00,000	Screening	Consumed in Sinter Plant
	Gas Cleaning Plant Sludge	36,000	0	36,000	Thickening/ filter press	Used as a raw material in Granules and recycled to sinter plant / Sales for Brick manufacturing, Coal blending, road making, construction works, Cement.
	Hot Metal Skull	8000	0	8000	-	Sales to Authorized Agencies / Units
11	Refractories: MgO-C, Castable,	32,000	-	32,000	-	Sales to Authorized Agencies / Units

Sr. No.	Solid Waste	Quantity (TPA)			Treatment before Disposal	Action Plan for Disposal / Management
		Existing	Modification	Total		
	Magnesite bricks, Alumina bricks, Tundish Grog, High Alumina Grog					

Hazardous Waste generation and its management

Sr. No.	Name of Hazardous Waste	Existing (TPA)	Proposed (TPA)	Total Quantity (TPA)	Action plan for Disposal / Management.
1	Chemical Sludge from Waste Water Treatment (ETP Sludge)	18100	19900	38000	Collection, Storage, Transportation and disposal at GPCB authorized TSDF site / Co-processing / Micropelletization
2	Used Oil	2775	225	3000 KL/Year	Collection, Storage, Transportation and Disposal by selling to Registered Vendors.
3	Oily Waste (Waste oily water + sludge + Magnetic sludge + Grinding Sludge + Coolant Sludge)	7	2493	2500	Collection, Storage, Transportation and Disposal by selling to Registered Vendors/TSDF/Recycle in process (Sinter plant/Blast Furnace), Briquetting, Co processing in cement units.
4	Discarded Container / Barrels / Liners / Paint Drums	15505	14495	30000 Nos/Year	Collection, Storage, Transportation and Disposal by selling to Authorized vendor.
5	Discarded Resin	8.3	191.7	200	Co-processing in DRI / HBI units as per CPCB guidelines / Disposal at TSDF
6	Zinc Dross & Zinc Ash	2340	3660	6000	Selling to authorized recycler.
7	Contaminated cotton rags (Oily soaked cotton waste)	0	500	500	Collection, Storage, Transportation and Disposal by selling to authorized Vendor or disposal at GPCB approved TSDF site.
8	Paint Dust & Sludge	0	500	500	Collection, Storage, Transportation and Disposal by selling to authorized Vendor or disposal at GPCB approved TSDF site
9	Spent Acid	766500	91250	857750 M ³ /year	Maximum acid will be recovered from this Spent acid in Acid Regeneration Plant (ARP) and balance spent Acid disposal to Authorized Recyclers. Recovered acid will be Reuse as a Raw Material
10	Tar Sludge (Coke Oven)	0	120	120	Tar sludge will be mixed with coal blend before feeding it to coke oven

Sr. No.	Name of Hazardous Waste	Existing (TPA)	Proposed (TPA)	Total Quantity (TPA)	Action plan for Disposal / Management.
					batteries
11	ETP (BOD Plant) Sludge (Coke Oven)	0	160	160	ETP (BOD Plant) sludge will be mixed with coal blend for charging in the coke oven batteries.
12	Ceramic based fiber waste (Glass wool) + Insulation wool	0	800	800	Collection, Storage, Transportation and Disposal at GPCB approved TSDF site
13	Waste photographic film disposal	0	350 Packets (1 packet 100 sheet) Packets / Year	350 Packets (1 packet 100 sheet) Packets /Year	Collection, Storage, Transportation and disposal by selling to authorized recyclers.
14	Waste photographic solution	0	5	5	Collection, Storage, Transportation and disposal by selling to authorized recyclers.
15	Oil Emulsion Waste	0	100	100	Collection, Storage, Transportation and Disposal at GPCB approved TSDF site
16	Alkali Waste Source	0	10	10	Collection, Storage, Transportation and Disposal at GPCB approved TSDF site
17	Chromic Sludge	0	8	8	Selling to Outside Agency

53.10.13 Public Consultation:

Details of advertisement given	Newspapers “Indian Express” and “Gujarat Mitra 17th August, 2021
Date of public consultation	21/09/2021 at 11:00 hrs
Venue	ArcelorMittal Nippon Steel India Limited, Plant B Security Gate, Hazira Bypass Road, Hazira-394270, Ta. Choryasi, Dist. Surat
Presiding Officer	Additional District Magistrate & Residential Additional Collector
Major issues raised	Setting up of Hospital, Providing Health Services, Supporting to Cancer Patients, Providing Education to Locals, Quality Teachers in Schools, Development of Greenery around Plant, Emission to Village Temple, Generation of Employment to locals, Business to Local, Permanent Employment for Contractual persons. , Pay Increase for Women working in CSR activities ,Risk due to Plant Operation ,Land Payments ,Water logging / Drainage of Rainwater, Traffic Congestion Road Accidents, Infrastructure development of Village, Emergency Route / Disaster, Management Unit, Sports Activities, CSR Activities, Animal Husbandry

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

Sr. No	Project/ Program	Target / Remarks	Year wise Progress (Amount - Rs. In Lacs)		
			2022	2023	2024
Medical Facilities					
1	Setting up of the Hospital	It will be taken up through joint efforts from Hazira Notified area Industries and district authorities. Company will contribute Rs. 50,00,000 for the setting up of the hospital.	-	Hazira village/ hazira notified area	-
Education					
1	Providing infrastructure support for schools	Library & sports infrastructure & computer lab & projector with LED	04 villages (Hazira Junagam, Suwali, Rajgari)	02 Villages (Mora, Bhatlai)	02 Villages (Damka Vansva)
		Infrastructure development/ renovation of school buildings/ providing toilets/ Major repairing of school	Junagam School and Halpati Primary School of Hazira Village & Anganwadi School	Hazira Primary School	Bhatlai Village & Damka Village)
		RO plant in school	03 Villages (Hazria, Junagam, Suwali)	03 Villages (Rajgari, Mora, Bhatlai)	02 Villages (Damka & Vansva)
Environment Pollution					
1	Wind Barrier around plant boundary near hazira village	Company will put up a wind barrier of around 400 m along the plant boundary, so that dust particles if any to the temple minimized	400 m long wind barrier (Near Sikotar Mata Temple of Hazira Village)	--	--
2	Development of greenery (Trees plantation) in the complex	Trees plantation in the complex – 3,47,000 Nos	2,50,000 Nos	97,000 Nos	--
3	Development of greenery (Trees plantation) along Village Roads & National Highway	Trees plantation in the complex – 25,000 Nos	--	Hazria 10,000 Nos	Junagam, Damika, Vansva Village 15,000 Nos
Employment					
1	Skill Development	Company will install and operate various skill development centres (ITI students, Tailoring Institute, Training for self-employment)	Hazira Village	Junagam Village	02 Villages (Damka, Vanva)
Infrastructure Development					
1	Infrastructure development in nearby villages	Construction of community centre	--	Hazira Village	Damka Village
2		Installation of drinking water pipe line	Hazira Village	--	--
3		Road development	New Road construction Ganpati Temple to Hazira Village (approx. 6 km	Junagam internal road development	--

Sr. No	Project/ Program	Target / Remarks	Year wise Progress (Amount - Rs. In Lacs)		
			2022	2023	2024
4		Installation of street light/ Solar lights	03 Villages (Hazira, Junagam) and road from Junagam to Suwali Beach Suwali and road from	03 Villages (Rajgari, Mora, Bhatlai)	02 Villages (Damka, Vansva)
5		Providing diesel generator (2 No- 125 KVA)	Near Hazira main Water Sump & Matafaliya	Suwali Village	--
6		Mechanized vehicle for garbage lifting and transportation.	Hazira Village	--	--
7		Deepening & cleaning of pond	Damka Villages	Vansva Village	Bhatlai Village
8		Rain water harvesting project for school	03 Villages (Hazira, Junagam, Suwali)	03 Villages (Rajgari, Mora, Bhatlai)	02 Villages (Damka, and Vansva)

53.10.14 The Existing capital cost of project was 35000 Crores. The capital cost of the proposed project is Rs 6413.13 Crores and the capital cost for environmental protection measures is proposed as Rs 1687.26 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 378.28 Crores. The employment generation from the proposed modernization is 1770 Nos. The details of cost for environmental protection measures is as follows:

Sr. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
I.	Air Pollution Control / Noise Management	244.0	143.0	400.00	15.60
II.	Water Pollution Control	313.0	16.5	77.50	5.50
III.	Environmental Monitoring and Management	27.5	1.50	12.60	1.0
IV.	Green Belt Development	6.5	0.75	11.22	0.70
V.	Occupational Health	2.5	4.0	0.86	0.36
VI.	Capital Cost which is part of new projects			1185.08	355.12
VII.	Addressal of Public Consultation concerns			21.0	3.0

53.10.15 Existing green belt has been developed in 171 ha area which is about 22.21 % of the total project area of 770 ha with total sapling of 2,87,429 Trees. Proposed greenbelt will be developed in 86 ha which is about 11.17 % of the total project area. Thus, total of 257 ha area (about 33.38 % of total project area) will be developed as greenbelt. A 9 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 634978 (Existing - 2,87,429 + Proposed - 3,60,110) saplings will be planted and nurtured in 257 hectares by December, 2022.

53.10.16 Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

Status of Show Cause Notice (SCN) & Notice of Direction (NoD) issued

For each Notice, compliance report along with action plan has been submitted to Regional Office, GPCB & Head Office, GPCB. Based on satisfactory compliance report submission to GPCB no further observations / points raised by GPCB against notices. GPCB inspected facility on 22/07/2021 & 26/08/2021. As per these GPCB observations, no major points regarding the non-compliances and related SCN. Implemented the Mitigation measures / Action plan for further reduction of fugitive emission.

List of Show Cause Notices (SCN):

Sr. No.	Show cause Notice no. & date	Under Section	Reason	Compliance Status	Remarks
1	SCN-551312 Dated 16/01/2020	Air Act	Looking to IR Observation dusting was observed at ground level due to truck movement on dry roads. Also SPM = 247 mg/Nm ³ (limit - 60 mg/Nm ³) in the ambient sampling done at the terrace of the plant.	Compliance Status submitted to HO, GPCB on 24-01-2020. <u>Action Plan Implemented:</u> Manual water sprinkling is going on in & around plant as well as on roads. Mechanized road sweeping machines of different categories are being used for the sweeping of the road. For dust reduction in ambient air, company has implemented & completed following action plan in Corex Plant: 1) Installation of automatic dampers in suction point of skip feeding to improve efficiency in Coal Skip area – Jan'20 (Completed) 2) Installation of automatic dampers in suction point of skip feeding to improve efficiency in Coal Skip	For reduction of Dust level at Corex Plant, proposed control measures were Completed in Feb'20. No further observations & communications from GPCB regarding this SCN.

Sr. No.	Show cause Notice no. & date	Under Section	Reason	Compliance Status	Remarks
				area – Feb'20 (Completed) 3) Installation of mist suppression system at silo truck loading area – Feb'20 (Completed) 4) Constructing retainer wall & fixing of sheet to contain the dust within the boundary in Coal Drying Plant Dust bin & Coal Transportation dust bin – Feb'20 (Completed)	

List of Notice of Directions (NoD):

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks	
1	GPCB/CCA-1190(3) / ID-14186/561688 dated 09/06/2020	SRT-ID-	Air Act	1) Brown Coloured dusting was observed from SMP-2 furnace. 2) Dusting was observed in the bottom line feeding area of Stock house. 3) Haphazard storage of fly ash was found in corex-1 plant area. 4) Analysis report of sample collected from Stack attached to stock House-Coal Line 1 of corex plant	Compliance Status submitted to HO, GPCB on 15/06/2020. Action Plan Implemented: 1) Installation & Operation of Launder Lancing & Dedusting System at SMP-2 Mar'21 (Completed) 2) Filter Bags replacement done at SMP2 Dedusting systems – Mar'21 (Completed) 3) Modified the Manhole seal	Detailed Action Plan has been prepared & Completed for SMP2 & Corex Plant. At SMP 2 Plant, Pollution Control measures implemented by Installation and Operation of Launder Lancing & Dedusting System and Bags Replacement at Dedusting areas. At Corex Plant, Pollution Control measures implemented are Modified the Manhole seal arrangement in

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
			shows PM – 371 mg/Nm ³ (Limit – 150 mg/Nm ³) 5) Analysis report of ambient air sample shows PM ₁₀ – 292.67 mg/Nm ³ which is higher than permissible limits.	arrangement in suction ducts above the vibrofeeder discharge in Stock house of Corex plant – May'20 (Completed) 4) Stored Coal fines removed from the area – May'20 (Completed) 5) Coal Dedusting System Upgradation in Corex – 1 – Repairing & Replacement of pulse valve, Puppet damper, suction duct inspection and cleaning, Damaged bag cleaning & replacement – Jun'20 (Completed)	suction ducts above the vibrofeeder discharge in Stock house and Upgradation of Coal Dedusting System. No further observations & communications from GPCB regarding this NoD.
2	GPCB/CCA-SRT-1190(5)/ID_14186/572184 dated 04/11/2020	Air Act	1) Brownish Fugitive emission from Corex and SMP-II plant and accumulation of dust (Reddish particulate matter) on leaf of trees. 2) Heavy Dusting due vehicular movement in plant	Compliance Status submitted to HO, GPCB on 18-11-2020. Action Plan Implemented: 1) The fugitive emission was temporarily observed only on account of operational disturbances / breakdown	Detailed Action Plan has been prepared & Completed for SMP2 Plant. At SMP 2 Plant, Pollution Control measures implemented by Installation and Operation of Launder Lancing & Dedusting System and Bags Replacement at

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
			<p>premises.</p> <p>3) Result of AAQM sample i.e Particulate matter- 307 mg/Nm³ is exceeding the permissible limit.</p>	<p>issues during the visit of the GPCB, Surat officials and the same was rectified immediately</p> <p>2) Appropriate pollution control measures, including regular water sprinkling on roads along with the deployment of mechanized road sweeping machines, are being taken to control the dust emission on roads.</p> <p>3) Action Plan already implemented as submitted during notice dated 09-06-2020.</p>	<p>Dedusting areas.</p> <p>To Control dusting due to Vehicular movement, Regular water sprinkling on roads along with the deployment of mechanized road sweeping machines.</p> <p>No further observations & communications from GPCB regarding this NoD.</p>
3	GPCB/CCA-SRT-1190(5)/ID_14186/572186 dated 04/11/2020	Water Act	<p>1) Unit is discharging generated wastewater having minor flow & pH @2 to 4 from central laboratory located in Corex Plant in to nearby storm water drain within</p>	<p>Compliance Status submitted to HO, GPCB on 18-11-2020.</p> <p>Action Plan Implemented:</p> <p>1) The waste water discharge of Central Lab was of temporary nature and was</p>	<p>All the Points for the notice were compiled and closed immediately.</p> <p>Implementation done are:</p> <ul style="list-style-type: none"> • Losing of Temporary discharge immediately and system

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
			<p>factory premises.</p> <p>2) Unit is discharging treated wastewater in to storm water drain which is ultimately goes to estuary of river tapi which violates the CC&A condition i.e. Zero liquid discharge outside the factory premises.</p> <p>3) In SMP-II plant, ETP sludge (@ 300 MT) is stored in open land & accumulation of sludge on land in haphazard manner near clarifier area.</p> <p>4) Accumulation of sludge in haphazard manner near sludge drying bed.</p> <p>5) Provided hazardous waste storage area seems to be inadequate in capacity with the</p>	<p>closed. Immediate samples were taken in presence of the GPCB officials from upstream & downstream of drain which were within the GPCB Effluent norms. Further, appropriate action is taken to collect acidic water from Central lab in drum which is sent to Effluent Treatment Plant (“ETP”) for further treatment. Register also maintained for the disposal of water at ETP.</p> <p>2) The waste water after being treatment is being used for Recycling, Horticulture, Gardening and plantation. Further, only storm water is being discharged into the Storm water drain.</p> <p>3) The Sludge had been collected immediately & was shifted at the designated</p>	<p>implemented to treat in ETP with maintaining logbook.</p> <ul style="list-style-type: none"> • The sludge had been collected immediately & was shifted at the designated Sludge Storage area. • Details has been submitted as asked by GPCB. • No further observations & communications from GPCB regarding this NoD.

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
			<p>actual generation of the unit and roof of the storage area is damaged.</p> <p>6) Unit has stored huge quantum of granulated slag on open land near jetty.</p> <p>7) There is no mentioning of Fuel/Raw material i.e. Blending Coal in obtained EC issued in March 2016 w.r.t. proposal.</p> <p>8) Unit has proposed to use blended coal which is not an authorized fuel.</p> <p>9) Unit has proposed to sell tar sludge to outside agency. The receptor details of the same is not submitted.</p>	<p>Sludge Storage area in compliance with the direction of your good office.</p> <p>4) The sludge had been collected immediately & was shifted at the designated Sludge Storage area.</p> <p>5) For Storage of Sludge, Adequate facility is available with two No. of Designated permanent sheds. The broken roof sheet was due to temporary damage and has already been changed.</p> <p>6) Granulated Slag is being sold to outside agencies.</p> <p>7) Coke oven gas which will be generated in Coke Making Process has high calorific value and will be utilized as a fuel in Coke Oven plant.</p> <p>8) Metallurgical coal (mentioned in</p>	

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
				EIA report) suitable for Coke making process will be used as fuel not blended coal. 9) Upon commencement of production at the Plant production, Tar Sludge will be sold to Authorized agencies as per GPCB/CPCB guidelines.	
4	GPCB/CCA-SRT-340(15)/ID-20680/587088 dated 31/03/2021	Air Act	1) Fugitive emission in the plant and road side due to vehicular movement as well as heavy dust deposition on the factory shed is observed. 2) Dust deposition on leaves of trees is observed at various locations. 3) General housekeeping is observed very poor in the plant area and water sprinkling is not carried out regularly.	Compliance Status submitted to HO, GPCB on 16-04-2021. Action Plan Implemented: <ul style="list-style-type: none"> • To arrest the Fugitive emission in the plant and road side due to Vehicular movement following measures are undertaken: • Fume Extraction system has been modified and revived for efficient suction. • Dust collection and extraction system is strengthened. 	Actions have been taken for the all the points immediately and compliance has been submitted to GPCB. Actions Implemented are: <ul style="list-style-type: none"> • Suction is improved by revival and modification of duct system. • Filter bags are replaced and bag house size increased with high suction capacity. • Deployment of Mechanized Sweeping machines for improvement in fugitive emissions due to vehicular movement.

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
				<ul style="list-style-type: none"> • Bag house capacity is increased & filter bags have been replaced. • Manual water sprinkling is going on, in & around plant as well as on roads • Road sweeping machines have been increased form 2 nos. to 7 nos. for effective road cleaning. • Manual cleaning of the roads and the surrounding areas is enhanced by increasing additional manpower to 270 nos. per day. • Regular cleaning is being done of Factory shed to remove dust deposition. • Cleaning activity for Dust deposition on Leaves of trees is being taken care through water sprinkling by manually as well as mechanized on regular basis. 	<ul style="list-style-type: none"> • Cleaning of dust depositions on leaves of trees by water sprinkling by manually as well as mechanized resources. • Special drives has been taken for improvement of housekeeping. • No further observations & communications from GPCB regarding this NoD.

Sr No.	Notice of Direction & Date	Under Section	Reason	Compliance Status	Remarks
				<ul style="list-style-type: none"> • Various actions are undertaken such as Water sprinkling, Cleaning, painting etc. to improve the housekeeping: • Special drives have been launched for improvement of housekeeping • Painting of the Shop-floors • Covers are provided over the Storm water drains • Improvement in Surrounding Housekeeping • Road Repairing Drive at inside & outside plant premises. 	

NOTE: ROSHNI B. PATEL VS. UOI & ORS (O.A. NO. 27 OF 2020 (WZ))

Background & Present Status

The applicant in the captioned matter has approached the Hon’ble National Green Tribunal (“NGT”) regarding the alleged dumping of hazardous waste by Hazira Container Freight Station Private Limited (“HCFS”) and ArcelorMittal Nippon Steel India Limited (“AMNS”).

The NGT on 4th August 2020 issued notice to the various respondents in the captioned matter and has directed the respondents to file their replies. AMNS has accordingly already filed a detailed reply denying the various allegations made in the captioned matter and has also clarified the factual position as detailed hereafter.

Response by AMNS

1. Land presently bearing survey no. 261 is not owned by AMNS

- a. It has been falsely alleged in the Application filed by the Applicant before the NGT that AMNS is disposing of hazardous waste on a land bearing survey no. 261 owned by AMNS which is adjacent to the land of HCFS and that the aforementioned land falls within Coastal Regulation Zone (“CRZ”).
- b. Land presently bearing survey no. 261 which is adjacent to the land of HCFS is not

owned by AMNS and hence, AMNS is not disposing of any hazardous waste on the aforementioned land.

- c. AMNS owned the earlier land bearing survey no. 261 which has been subsequently numbered as survey no. 83 and this land presently bearing survey no. 83 owned by AMNS is located within the premise of the Plant. Therefore, AMNS has nothing to do with land bearing survey no. 261.

2. Environmental compliance by AMNS

- a. AMNS is an environmentally conscious company and it has been making all possible efforts to operate in harmony with the environment. AMNS is operating in compliance with the regulations and conditions imposed by or under existing laws in India.
- b. AMNS has been undertaking several programs / activities / initiatives for the benefit of people residing in and around Hazira as a part of its Corporate Social Responsibility (“CSR”) initiatives.

3. Disposal of hazardous waste

- a. AMNS neither owns the land presently bearing survey no. 261 which is adjacent to the land of HCFS as falsely alleged by the Applicant nor is it disposing of any hazardous waste on the aforementioned land.
- b. AMNS has been ensuring that the hazardous waste generated at the Plant is disposed of in compliance with the applicable laws and conditions imposed on AMNS by relevant regulatory authorities. Details of hazardous waste generated at the Plant and its disposal by AMNS is shown in the table below:

Sr. No.	Particulars	Disposal/recycling
1.	Chemical sludge from waste water treatment	Disposal at GPCB approved TSDF site.
2.	Used or spent oil	Sent to registered re-refiner.
3.	Empty barrels / Containers / Liners contaminated with hazardous chemicals / waste	Sent to registered re-refiner.
4.	Zinc Dross	Sent to authorized recycler.
5.	Iron slag	Being recycled internally in the Blast Furnace, Corex and also being used for construction of internal plant roads and village roads.
6.	Granulated slag	Being sold to authorized personnel/agencies.
7.	Fly ash	There is no generation of fly ash from the Plant.

- a. There is no fly ash generation from the Plant of AMNS.
- b. AMNS procures power pursuant to a power purchase agreement entered into by AMNS (“PPA”), which is very much essential for the seamless operation of its Plant. As per the terms of the PPA, AMNS is being supplied with fly ash generated from the power plant and the same is thereafter in a compliant manner sold to third parties who inter alia undertake to comply with all the applicable environmental compliances in this regard.
- c. The Applicant in its Application before the NGT has created an illusion that fly ash is a hazardous waste, however, it is to be noted that fly ash is excluded from the category of hazardous wastes as per the Hazardous and Other Wastes (Management and

Transboundary Movement) Rules, 2016.

GPCB Action Taken Report

GPCB is Respondent No. 5 in the case before the NGT. GPCB has submitted its Action Taken Report and in the said report, GPCB has stated that AMNS plant was visited by GPCB on 03.09.2020, 26.08.2021 and 23.09.2021 one of the salient features of the inspection report is that at present, no dumping / storage of the fly ash / slag / hazardous waste is observed on the land bearing survey no. 261.

Additional studies done by project proponent

- 53.10.17 Details of all the additional studies carried out and its recommendations shall be furnished. Additional studies: Mangrove and CRZ study were done as additional studies. As per the mangrove survey study report there is no mangrove present with in the plant premises. As per the CRZ study, proposed projects are located outside the CRZ area so there is no need of CRZ clearance for the proposed modernization project.

Details of public representations received if any and response of proponent

- Notice made through advertisement in the Newspapers “Indian Express” and “Gujarat Mitra”, on 17/08/2021
- The Public Hearing was conducted on 21/09/2021 at 11:00 hrs. at ArcelorMittal Nippon Steel India Limited, Plant B Security Gate, Hazira Bypass Road, Hazira-394270, Ta. Choryasi, Dist. Surat under the chairmanship of Sh. Y. B. Jhala (GAS), Additional District Magistrate and Residential Additional Collector, Surat. Almost 550 persons attended
- The public hearing was attended by almost 550 persons
- AMNS received 23 no of written letters before PH and 9 no. of submissions during public hearing.

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
1	Medical Facilities	Setting up of Hospital	<ul style="list-style-type: none"> ▪ Co-ordination with District authorities and nearby industries for Setting up of Hospital. 	<ul style="list-style-type: none"> ▪ Company will co-ordinate through District Health department and Hazira notified area authorities and with nearby industries to setup full-fledged hospital in the vicinity for the support of the people. Company will provide the necessary financial support in setting up the hospital.
		Providing Health Services	<ul style="list-style-type: none"> ▪ Company is regularly supporting the community by providing health services at 	<ul style="list-style-type: none"> ▪ Company is regularly conducting the Health Check-up camps in neighbouring villages of Hazira belt and sets-up 750 Bed COVID hospital for the

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
			company's Care nursing home. ▪ Company has setup the 750 bed COVID hospital for the benefit of the local community.	benefits of the locals to combat from coronavirus. ▪ Also providing health service at our AMNS-Care Nursing Health centre, supported to Hemophilia care centre civil hospital-Surat for treatment of Haemophilia patients. Further, Medical Check-up Camps & Health Services initiatives will be undertaken as under: ▪ Company will spend Rs. 60 lakhs in 5 years by conducting various Health Camps (Free Doctor consultation and medicine) for the community villages. ▪ Company will organize Health Awareness program on AIDS, Malaria, TB, Anaemia etc. and will spend Rs. 30 lakhs in 5 years. ▪ Company will support Haemophilia Care Centre at New Civil Hospital Surat and will spend Rs. 96 lakhs in 5 years.
		Supporting to Cancer Patients	▪ Company will extend the support to cancer patients.	▪ Company will extend necessary support to required persons.
2	Education	Providing Education to Locals / Quality Teachers in Schools	Company is providing regular support for the Education enhancement for the locals	▪ Company is providing continuous support to the Nav-Jagruti Vidhya Vihar for Education Enhancement. ▪ Company has provided two special teachers to the school, and they extended their services for Science, Maths and English. Teacher conducting Special coaching and remedial classes for weak students and improve their

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
				<p>knowledge on mentioned Subject.</p> <ul style="list-style-type: none"> ▪ Company provided Computer Expert Teacher conducting the Computer Theory and Practical Classes. ▪ Provided computer Set to the Mata Faliya Government Primary School for Educational Purpose use. ▪ Company will take further initiatives in consultation with education department for teachers training referral courses towards imparting quality education. <p>Following Education activities are planned:</p> <ul style="list-style-type: none"> ▪ Company has earmarked and will spend Rs. 98 lakhs in 5 years for High School Transformational Project (smart class, science lab, tinkering lab etc. under digital education) in partnership with Govt. ▪ Company will spend Rs. 75 lakhs in 5 years for Improvement in basic amenities & providing teaching learning materials in Anganwadi centre and Rs. 1 crore in 5 years for Primary and middle schools.
3	Environment	Environment Pollution	Due to Financial Loss of Previous company Environment improvement projects couldn't implemented. But the New company management will spend on state of art technologies and implement action	<p>Following actions are planned for Environment Improvement:</p> <ul style="list-style-type: none"> ▪ Company will put up a wind barrier around our boundary, so that dust particles if any to the temple minimized. Already company started the wind barrier for 400mt length at a cost of Rs.5 Cr and the job will be completed by Apr'22.

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
			plan for Environment improvement.	<ul style="list-style-type: none"> ▪ For Further Environment improvement approx. Rs. 400 Crores will be spend which will improve the Environment conditions. Out of which Company is in active stage of implementation of Environment Improvement Action plan which is also submitted to GPCB costing around Rs. 173 crores with time line Jun'22. ▪ For further improvement in Fugitive emissions, Road making & Road repairing works will be carried out inside & outside complex.
		Development of Greenery	Adequate Greenbelt development will be undertaken by the company	<ul style="list-style-type: none"> ▪ Company will increase the greenbelt development programmes by planting more trees inside and outside the premises for betterment of the Environment, targeting Villages, schools, playground for more plantation. ▪ Company will spend Rs. 75 lakhs in 5 years by Plantation and Greening Drive in villages and School premise. ▪ Greenbelt development inside and outside complex by planting 3,47,000 nos. of trees with costing around Rs. 11 crores.
4	Employment	Generation of Employment to locals	Locals will be given preference for the Employment. More than 700 employees of Kantha area are working with company.	<ul style="list-style-type: none"> ▪ Maximum opportunities will be given to the local people according to their education qualification, experience, and skills. Providing maximum employment and skill training to local people. Company already provided employment to the 50 local candidates recently.

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
		Business to Local	Company will make system for the business to locals	<ul style="list-style-type: none"> ▪ Company will make system & preference will be given to locals for the business in the company.
		Permanent Employment for Contractual persons	Company will take necessary steps for Permanent Employment to Contractual persons	<ul style="list-style-type: none"> ▪ Company will provide the Permanent Employment to Local contractual employees based on the performance. ▪ In Oct'21, 100 contractual employees belong to nearby villages given permanent employment.
		Pay Increase for Women in CSR activities	Company will look into matter and will provide necessary assistant.	<ul style="list-style-type: none"> ▪ Company will increase the pay based on the performance.
5	Livelihood	Risk due to Plant Operation	Necessary Risk Control system are installed and Safe operating are in place along with emergency plan.	<ul style="list-style-type: none"> ▪ Company has implemented the risk mitigation measures & necessary control systems are installed. Emergency plans are also prepared. ▪ Company will take the responsibility and necessary corrective actions, if any damage to the people of affected areas and the employee as per regulations.
		Sustainable Livelihood	Company is already assisting the nearby community for Sustainable livelihood.	<p>For sustainable livelihood company will spend 3.45 Crores in 5 years with following steps:</p> <ul style="list-style-type: none"> ▪ Rs. 1 Crores will be spent for Vocational Skill Training for youths- Setting up Digital/Computer skill centre in partnership with NSD. ▪ Rs. 1.2 Crores will be spent for Setting up Paper Recycling Unit. ▪ Rs. 1.25 Crores will be spent for Promotion of Income Generation Activities- Poultry, Dairy, Pickle, Tailoring & embroidery, vegetable Cultivation etc.

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
		Land Payments	Necessary steps will be taken for resolving the issues.	<ul style="list-style-type: none"> Company will look into the matter and will take necessary steps for the regularization.
6	Infrastructure	Water logging / Drainage of Rainwater	Water logging issues will be resolved with consultations.	<ul style="list-style-type: none"> Company has taken initiative for the waterlogging issues and further steps will be taken for the drainage of rainwater.
		Traffic Congestion / Road Accidents	Steps will be taken for resolving the issue	<ul style="list-style-type: none"> Company will co-ordinate with nearby industries for the solution of Traffic congestion. The company in consultation with local government administration will take necessary steps to prevent road accidents.
		Infrastructure development of Village	Company is regularly taking steps for infrastructure development.	<p>Community Infrastructure development works will be undertaken in the surrounding villages:</p> <ul style="list-style-type: none"> Company will spend Rs. 4.85 Crores in 5 years for Drinking Water supply through pipe line. Company will spend Rs. 60 lakhs for Construction of Community Centre in 4 villages.
		Sports Activities	Company will spend & support for Sports activities	<p>Company will support village youths by organizing sports tournaments and providing sports materials:</p> <ul style="list-style-type: none"> Company will spend Rs. 50 lakhs in 5 years by organizing sports tournaments and providing sports materials. Company will spend Rs. 26 lakhs in 5 years by organizing Annual Freedom Cup Cricket Tournament for differently abled person
		Emergency Route / Disaster	Definite steps will be taken for setting up the unit.	<ul style="list-style-type: none"> As per direction of Authorities, the Company will coordinate with

Sr. No	Area	Issues Raised	Commitment By Project Proponent	Response of Project Proponent & Action Plan
		Management Unit		government as well as nearby Industries for setting up the common disaster management / Firefighting facilities and other necessary requirements.
8	CSR Activities	CSR Activities	Company will continue to do CSR Activities for nearby villagers.	<ul style="list-style-type: none"> Rs. 16 Crore will be spent for CSR Activities within a span of 5 years in nearby villagers considering the suggestion of elders of the town and Sarpanch of the town. It includes mainly education, health, instruments for sports and training.
		Animal Husbandry	Necessary support will be provided.	<ul style="list-style-type: none"> Company will implement Livestock management program under animal husbandry to increase cattle yield and farmers income. Company will also look into for providing grass for the cattle.

53.10.18 Name of the EIA consultant: M/s. Shree Green Consultants [S. No. 33, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/IA0072, Valid up to 24/02/2024; Rev. 18, January 05, 2022].

Certified compliance report from Regional Office

53.10.19 The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter no dated 01/04/2021 in the name of M/s. ArcelorMittal Nippon Steel India Limited. The Action taken report regarding the partially/non-complied condition was submitted by PP to IRO, Gandhinagar through e-mail dated 26/11/2021. Review report on ATR has been issued by IRO, Gandhinagar on 07/01/2022 based on ATR received from PP nad subsequently site visit carried out by RO on 17- 18th December, 2021. The details of the observations made by RO in the report dated 07.01.2022 along with its re-assessment / present status as furnished by the PP is given as below.

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1	The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitored data on their website and shall update	Compliance status of EC conditions and monitored data has not been uploaded on company's website.	09/03/2016	--	General Condition No. (xi)	<u>Re-assessment by RO:</u> The unit is in process of making the website. It was informed that it will get ready by January 2022 and after that all the documents will be uploaded.

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Not Complied				Not Complied <u>Response by PP:</u> Complied EC & Latest Compliance report uploaded on website from January'22.
2	'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.	Mixing of industrial waste water with storm water drains was observed. Not Complied	09/03/2016 09/03/2016 05.07.2010 05.07.2010	Specific Condition No. (x) -- Specific Condition No.viii --	-- General condition No.iv -- General condition No.iv	<u>Re-assessment by RO:</u> The unit has taken an initiative to achieve the target of ZLD and in these directions they have started the construction for separating storm water from the industrial effluent. The Pipe Line work was seen during site inspection. It was informed that they are planning to execute the entire process in phases and the First Phase will most likely be completed by January 2023 and remaining Phase will be completed by December 2023. At present it is directed to make necessary arrangement to check the outfall of water from the blast furnace unit. The action taken should be intimated within 15 days to the regional office Gandhinagar. In view of the above and as per site observation the unit are in progress stage to achieve the mandate of ZLD. Although in the present scenario the condition is considered as

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						<p>not complied.</p> <p>Not Complied Response by PP:</p> <p>As per Environment Clearances granted earlier, AMNS has permission to discharge water to the Tapi Estuary.</p> <p>As per latest Consent To Operate (CTO) granted by GPCB, Company has permission to discharge the water into Tapi Estuary for HRC Division, Plate Mill Division and Power Division. (Total Permission - 27572 M3/day) and currently around 12,000 m3/day treated effluent is being discharged into Tapi estuary after confirming GPCB discharge standards.</p> <p>In 2016 EC, Ministry has recommended Zero liquid discharge (ZLD) for the proposed expansion facilities, however due to Financial Implications and NCLT earlier management could not be able to complete the ZLD. Now the new management i.e. AMNSI has taken over ZLD project. Pipeline work is already started. Entire project expected to complete in phases. First Phase will be completed by Jan'23 and remaining Phase will be completed by Dec'23.</p>
3	At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time	Risk and Disaster Management plan, details of expenditure incurred	09/03/2016 09/03/2016	Specific Condition No. (xvii) Specific Condition No. xv	-- --	<p><u>Re-assessment by RO:</u></p> <p>The unit has submitted the risk and disaster management plan. CSR activities were undertaken in and around the nearby</p>

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.	and funds earmarked for Enterprise social commitment, details of policy towards CER, compliance status of CC&A and EIA/EMP report has not been submitted. Partially Complied	09/03/2016 09/03/2016 09/03/2016 05.07.2010 05.07.2010	Specific Condition No.xix -- -- -- --	-- General condition No.i General condition No.viii General condition No.vi General condition No.ix	villages of proposed expansion project. An amount of Rs. 16 crores have been dedicated for CSR activities for five years and the company has to identify stakeholders for the planning and implementation of CSR activities. Proposed activities with its estimated cost for benefitting the society at large and the local rural community in particular for a period of 5 years was provided the PP. The CCA compliance report was already submitted to IRO Bhopal. During the site visit, it was noticed that the project proponent is complying with all the environmental protection measures like operation of ETP, air pollution control devices, fume extraction system etc., the details of which were discussed in the certified compliance report. The unit has upgraded the Fume Extraction System of to reduce the gas emissions. The unit has taken proactive steps towards compliance of conditions stipulated by the Ministry. Due to change in the ownership followed by a COVID setback the pace of implementation of the conditions were slow. It was promised by the PP to achieve the compliance in a planned and time bound manner. Partly Complied Response by PP:

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						<p>Complied</p> <p>We have undertaken community development activities for nearby villages. Till 2019, the unit was under NCLT process and no major CSR activities was carried out. Last year CSR Activity details and action plan for next 05 years is submitted.</p> <p>Last 02 Years (2020 & 2021) Company has spent Rs. 8.33 Crores towards CSR Expenditure.</p> <p>Risk and Disaster Management Plan submitted to MoEF&CC / GPCB / CPCB through EC Compliance report dated 31st May, 2021.</p> <p>CCA Compliance Report already submitted in the last compliance report of Oct'20 to Mar'21 dated 31st May, 2021</p>
4	The project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one should be in vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhopal.	Details of newspaper advertisement of EC granted, financial closure and final approval of project, date of commencing land development work has not been submitted. Partially Complied	05.07.2010 05.07.2010	-- --	General Condition No. (xii) General Condition No. (xiii)	<p><u>Re-assessment by RO:</u></p> <p>The unit has published the public notice in two newspapers on 14th March 2016. The PP has apologized for the action taken in the past and ensured that no such lapse will occur in future correspondence.</p> <p>Partly Complied</p> <p><u>Response by PP:</u></p> <ul style="list-style-type: none"> • 2010 EC is an administrative one for merging of earlier separate ECs obtained for our two units in 2007. There was no change in production as per this 2010 EC. • Paper advertisements

Sr. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						for the 2007 ECs only were given by the earlier management and the copy the same is submitted. We sincerely apologized for this pending action. We will assure to comply this point for all the ECs hereafter.

53.10.20 Ministry was in receipt of public representation dated 16/09/2021 and 19/09/2021 for non-compliance of EC conditions and cancellation of the public hearing regarding project cited above. Accordingly forwarded to IRO, Gandhinagar for seeking point wise reply on public representation on 24/11/2021.

IRO, Gandhinagar submitted letter dated 17/01/2022 to Ministry regarding public representation in which stated that during site visit carried out on 17- 18th December 2021. The points of public representation were covered during site visit and accordingly observation on these points made in Review report issued by IRO, Gandhinagar on 07/01/2022. Comments of IRO, Gandhinagar are given as below:

S No	Points of Public representation	Comments of IRO, Gandhinagar
1	The untreated/ half treated effluent from the plant is being disposed in the fragile estuary ecosystem of Tapi River	<p>The treated waste water was used in various system making process within the unit. But a huge volume of water from the Blast Furnace unit were discharged into a drain which was going out of the premises. The water was accumulated inside the premises of blast furnace unit and the raw material handling in the unit was also very poor.</p> <p>The units were draining water outside the premises at three locations for which they have taken the consent from GPCB. The water quality monitoring station was installed at the outlet. The results were within the prescribed limits.</p> <p>The unit has taken an initiative to achieve the target of ZLD and in these directions they have started the construction for separating storm water from the industrial effluent. The Pipe Line work was seen during site inspection. It was informed that they are planning to execute the entire process in phases and the First Phase will most likely be completed by January 2023 and remaining Phase will be completed by December 2023. At present it is directed to make necessary arrangement to check the outfall of water from the blast furnace unit. The action taken should be intimated within 15 days to the regional office</p>

S No	Points of Public representation	Comments of IRO, Gandhinagar
		Gandhinagar. In view of the above and as per site observation the unit are in progress stage to achieve the mandate of ZLD. Although in the present scenario the condition is considered as not complied.
2	The plant is not operating as per Zero Liquid Discharge conditions and remained Non-compliant	Reply has been made at point no 1.
3	Large waste heaps are present in open in the plant causing ground water pollution	No sludge was observed near the ETP plant. It was disposed at TSDF site. A drain was trenched at the ETP site where water was seen accumulated, which needs to be filled in a time bound manner and the report should be submitted to the IRO Gandhinagar. The unit has provided two sludge storage area which were covered by the shed. There needs an improvement in the design of sludge storage area so that rainwater could not mix with the solid waste. The garland drain should be constructed all around to prevent the mixing along with a U shape ramp for loading and unloading of sludge. The area has the potential to develop a green belt all around. The roads around storage area should be made pucca in a time bound manner to prevent the fugitive emissions. No generation of fly ash were seen during site inspection. They don't have coal based power plant.
4	Plant units for the propose expansion plants already constructed before grant of ToR	--
5	Slag & other waste is being disposed into the sea by company	As per the documents provided at site it can be concluded that the unit were utilizing 80% of solid waste in house whereas they are exploring the possibilities with international technology supplier/CSIR labs to utilize 100% waste. The slag storage area was seen and it was informed that they were in negotiation with NHAI to use the slag in road construction. They are also in negotiation in RDSO for replacing ballest with steel slag. In view of the above the condition is considered as complied.

53.10.21 M/s. ArcelorMittal Nippon Steel India Limited had earlier made an online application vide proposal no. IA/GJ/IND/28742/2014 dated 07/01/2022. The proposal was considered in 52nd meeting of Re-constituted EAC (Industry-1) held on 27th, 28th and 31st January, 2022. The observations and recommendations of EAC are given as below:

Observations of the Committee held during 27th, 28th and 31st January, 2022

53.10.22 The Committee noted the following:

- i. EC is being sought for modification in the existing plant by installation of additional facilities without increasing overall capacity of 9.6 MTPA at Hazira, Surat, Gujarat.
- ii. TOR was granted on 8/2/2021.
- iii. Total land in possession is 770 ha.
- iv. Tapi estuary is 500 m from site and Arabian sea is 2 km, NH-6 is adjacent to the plant site and Hazira Town is 2.45 km. Hazira reserve forest is 1.72 km SSW.
- v. There are no mangroves in the project premises, however within the study area there are several.
- vi. PM concentration in ambient air are as high as 124.85 $\mu\text{g}/\text{m}^3$ and incremental ground level concentration of PM are as high as 20.7 $\mu\text{g}/\text{m}^3$.
- vii. Activity wise yearly targets for socio development have not been furnished as per OM 30/9/2020.
- viii. Existing green belt in the plant is only 22.21%. Revised time bound action for green belt development in 33% of total area in a time frame of two years shall be submitted.
- ix. Following points are noted from the RO report:-
 - a. PP has committed to upload monitored data from the plant on company's website by Jan 22.
 - b. 12,000 KLD treated water is being discharged in Tapi estuary. As per EC 2016 ZLD was to be achieved. PP now commits ZLD by end Dec 2023.
 - c. EMP commitments for SE development have not been met so far. No action plan has been submitted.
 - d. PP has not uploaded the EC of 2016 for the information of the public.
 - e. Two conditions out of 10 have been partially complied and 2 have not been complied.
- x. Performance monitoring of PCDs has not been included in the post project monitoring schedule.
- xi. Maximum GLC in the EIA report for PM is mentioned as 34.5 $\mu\text{g}/\text{m}^3$ at 1.7 Km. SO₂ as 27.4 $\mu\text{g}/\text{m}^3$ at 0.5 Km in SW and NO_x at 1.9 $\mu\text{g}/\text{m}^3$ at 1.2Km. This is different from what is given in slide number 34 of presentation given before the EAC.
- xii. Chapter 5 onwards the EIA Report chapters are not following the sequence given in Appendix III of EIA Notification 2006.
- xiii. Additional TOR Compliance:
 - a. TOR point number 2 related to green belt development has not been complied.
 - b. TOR point number 4 – there is no firm commitment to reduce Acid fume emissions to <10mg/Nm³ of HCl in ARP.
 - c. TOR point 7 – Incinerator to handle oil sludge and scum from CRM has not been proposed.
 - d. TOR point 9 – ZLD not achieved.
 - e. TOR point 10 – Mangrove survey has been done only in plant premises and not in the study area as required.
 - f. TOR point 11 – CRZ mapping of the project site has not been carried out by the authorized agency, inter alia HTL/LTL mapping, CRZ land classification along with superimposition of the facilities envisaged in the project.

- g. TOR point 12 – Cumulative impact assessment has not been done on the pretext that the capacity of the plant is not going to change while several new facilities that would add pollution are being added to the EC configuration.
- h. TOR point 13 – Rs16 Cr has been allotted for CSR. EMP as per OM of 30/9/2020 has not been furnished.
- i. TOR point 14 – CEMS signal for the process control in the plant control room has not been proposed.
- j. TOR point 19 – Ultra low NO_x burners have been proposed in CRM 2 only.
- xiv. General TOR point 9 – Head HSE shall report to VP and does not have any direct reporting relationship with MD of the Board. TOR 9(iv) is not addressed properly.
- xv. General TOR point 11 – Has not been addressed as per OM of 30/9/2020.
- xvi. SPECIFIC TOR:
 - a. TOR number 3 – Installation of CEMS has not been done so far.
 - b. TOR number 4 – Analysis of toxic metals including Hg, As, F is not available in EIA report.
 - c. TOR number 19,20 (Page 40 pdf of EIA report) – On page 2-106 of EIA report details of toxic metals and waste in the slag has not been furnished
- xvii. There are lots of non-compliances to TOR conditions in EIA report as mentioned above
- xviii. There is no firm commitment on installation of CDQ for the Coke Oven Plant.
- xix. Multiple Effect Evaporator (MEE) for RO reject has not been proposed. It is mentioned that RO reject shall be used for BF slag quenching. It may be noted that RO reject is highly toxic and on evaporation during slag quenching shall result into air pollution and heavy corrosion of structures around.
- xx. Percentage of hot charging of slabs and billets has not been committed for energy conservation.
- xxi. BF gas dry cleaning is not proposed.
- xxii. Secondary FES is proposed on EAF in SMP 2. Common system has been proposed for all furnaces which is risky from balancing point of view.
- xxiii. As per GBCB consent 27572 KLD treated effluent is discharged in Tapi river while EC of 2016 mentions ZLD.
- xxiv. Chapter 2 of EIA report is not in the format of Appendix III of EIA Notification of 2006. Chapter 4 is generic. Impacts have not been quantified except for incremental concentration of pollutants. Mitigation measures have also not been quantified.
- xxv. In new Sinter plants technologies like MEROS for dioxin and furan emission control and Sinter cooler waste heat recovery for power generation have not been proposed.
- xxvi. Impact matrix in table 4.7 of EIA report does not present realistic scenario in the absence of any quantification and significance analysis of impacts.
- xxvii. Post Project Performance monitoring schedule for PCDs is not given.
- xxviii. Only CSR activities have been listed in chapter 7. PH related and SIA related activities have not been described and budgeted as per OM 30/9/2020.
- xxix. Chapter 8 is EMP (Chapter 10 as per EIA Notification 2006) .
- xxx. Environment Management Cell details are not available as required under TOR 9.
- xxxi. Chapter on alternate site and technology has been kept blank.
- xxxii. Chapter 12 heading is wrong, not as per EIA Notification. It is mentioned as “Consultant Engaged”.
- xxxiii. Signature of EIA team are scanned.

Recommendations of the Committee held during 27th, 28th and 31st January, 2022

53.10.23 In view of the foregoing and after detailed deliberations, the committee recommended to return the proposal in its present form to address the shortcomings enumerated at 53.10.24 and submit the revised application as per the provisions of EIA Notification, 2006. Further, the Committee warned the EIA consultant for submission of poor quality of EIA report and advised to improve upon the quality of EIA report.

53.10.24 The proponent has again made an online application vide proposal no. IA/GJ/IND/28742/2014 dated 05/02/2022 after addressing the aforementioned shortcomings with point-wise information as given below:

Sr. No.	Observations of the Committee	Response from PP
i.	EC is being sought for modification in the existing plant by installation of additional facilities without increasing overall capacity of 9.6 MTPA at Hazira, Surat, Gujarat	Point noted.
ii.	TOR was granted on 8/2/2021.	Point noted.
iii.	Total land in possession is 770 ha.	Point noted.
iv.	Tapi estuary is 500 m from site and Arabian sea is 2 km, NH-6 is adjacent to the plant site and Hazira Town is 2.45 km. Hazira reserve forest is 1.72 km SSW	Point noted.
v.	There are no mangroves in the project premises, however within the study area there are several.	<ul style="list-style-type: none"> ▪ Mangrove survey has been carried out for 10 km study area. No mangrove found within the plant premises. After modification project, the unit will be going to implement ZLD, hence the no impact for the mangroves in the Tapi estuary zone. ▪ There are mangroves present outside the plant premises which are detailed in mangrove survey report.
vi.	PM concentration in ambient air are as high as 124.85 µg/m ³ and incremental ground level concentration of PM are as high as 20.7 µg/m ³	<p>Proposed mitigation measures for PM₁₀ & PM_{2.5}:</p> <p>Following actions are under progress for Reduction of Emission Levels:</p> <ul style="list-style-type: none"> ▪ Part of this modification project, proposed to install additional 45 APC measures such as Water scrubber, Venturi Scrubber, Bag Filter, De-dusting System, Screen Filter, ESPs for capturing the Fugitive emission from Material handling areas & Process that couldn't be implemented since 2016 due to NCLT process. ▪ Environment Improvement Roadmap Plan with Budget of Rs. 173 Cr. (covering SMP1, SMP2, BF, Sinter Plant, Corex) prepared in 2020, started implementation after taken over the new management and 70% Action plan implemented. Remaining modifications including the SMP-1 FES will be completed by Jun'22 After these proposed APCs, the ambient dust level will reduce drastically. ▪ The main material handling Surat – Hazira road in front of our complex repaired with a cost of Rs.1.4 Crores and also main roads connecting between Captive Jetty / EBTL repair & strengthening carried out in 2021 at a cost of Rs. 2.5 Cr. ▪ Also proposed to repair the remaining artillery roads in the plant area in 2022 at a cost of Rs.1 Crores. Repairing & strengthening of Roads will eliminate

Sr. No.	Observations of the Committee	Response from PP										
		<p>the fugitive emission due to vehicular movement. Also, the unit is plan to increase the green cover along the roads to reduce further.</p> <ul style="list-style-type: none"> ▪ Deployment of new additional road sweeping machines in the main material handling roads to increase the frequency. ▪ To comply with the Greenbelt target 33%, planning to increase Greenbelt cover with additional 3, 47,000 nos. of trees in one year and that will also control the ambient dust level. ▪ Proposed mitigation measures for SO₂: Maximum use of clean fuel (Natural gas), Selection of coal with low Sulphur content ▪ Proposed Mitigation Measures for NO_x: Installation of Low NO_x burner in new CRM unit, Regular performance checking & maintenance of existing burners to ensure the NO_x level within the design limit <p>Apart for these Control measures, the existing process control measures provided in the DCS with the CEMS values will have better environment operational control. That is, Plant panel operators will get first alarm on 70% of the emission limits once the CEMS values crossed that range and continuous alarm on 80% of the emission limits.</p>										
vi	Activity wise yearly targets for socio development have not been furnished as per OM 30/9/2020.	As per the OM dated 13/09/2020, action plan with the targets has been prepared on PH queries. As per the action plan, the required support & projects for the rural development will be completed within 3 years at a cost of around Rs.22 Crores as well as the Pollution related action plan in the plant premises will be completed by Dec'2023.										
viii.	Existing green belt in the plant is only 22.21%. Revised time bound action for green belt development in 33% of total area in a time frame of two years shall be submitted.	<p>Total AMNS premises is 770 ha,</p> <ul style="list-style-type: none"> •Existing Green belt area 171 ha (22.21%) •Proposed Green belt area 83 ha (12.39 %) •Total green belt area after modification project: 254 ha (33%) <p>Action Plan:</p> <table border="1"> <tr> <td>Cost for Greenbelt Development</td> <td>11.22 Crores</td> </tr> <tr> <td colspan="2">Target for 33% completion – March'2023</td> </tr> <tr> <td colspan="2">Planning for Tree plantation:</td> </tr> <tr> <td>Dec'2022</td> <td>2,56,000 Nos (320 days @ 800 Trees Plantation / day)</td> </tr> <tr> <td>Mar'2023</td> <td>91,549 Nos (90 days @ 1000 Trees Plantation / day)</td> </tr> </table>	Cost for Greenbelt Development	11.22 Crores	Target for 33% completion – March'2023		Planning for Tree plantation:		Dec'2022	2,56,000 Nos (320 days @ 800 Trees Plantation / day)	Mar'2023	91,549 Nos (90 days @ 1000 Trees Plantation / day)
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ix.	<p>Following points are noted from the RO report:-</p> <p>a) PP has committed to upload monitored data from the plant on company's website by Jan 22.</p> <p>b) 12,000 KLD treated water is being discharged in Tapi estuary. As per EC 2016 ZLD was to be achieved. PP now commits ZLD by end Dec 2023.</p> <p>c) EMP commitments for SE</p>	<p>Compliance:</p> <p>a) Complied, EC copy & EC compliance report uploaded on Company website</p> <p>b) ZLD project is under progress and it will be completed by Dec'2023.</p> <p>c) Due to NCLT process, CSR activities couldn't be implemented till 2019 and last two year CSR activities resumed with the new management. SE</p>										

Sr. No.	Observations of the Committee	Response from PP												
	development have not been met so far. No action plan has been submitted.	development activities at a cost of Rs.8.3 crores implemented in 2020-2021.												
	d) PP has not uploaded the EC of 2016 for the information of the public.	d) Complied , EC copy & EC compliance report uploaded on Company website												
	e) Two conditions out of 14 have been partially complied and 2 have not been complied.	e) Currently, one condition is pending i.e. ZLD and it will be complied by Dec'2023.												
x.	Performance monitoring of PCDs has not been included in the post project monitoring schedule.	As Directed, Pollution Control performance monitoring will be carried out on Annual basis. This is included in the Environment Monitoring Chapter 6 of the revised EIA report.												
xi.	Maximum GLC in the EIA report for PM is mentioned as 34.5 µg/m ³ at 1.7Km. SO ₂ as 27.4 µg/m ³ at 0.5 Km in SW and NO _x at 1.9 µg/m ³ at 1.2Km. This is different from what is given in slide number 34 of presentation given before the EAC	<p>Earlier GLC was given in the EIA report as per conservative approach considering Existing & Proposed stacks.</p> <p>In continuation to EDS reply submitted to Ministry on 07.01.2022. Revised GLC has been calculated only for Proposed Stacks through Atmospheric Dispersion Modeling System (AERMOD) software. Details of the GLC are as below:</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Parameters</th> <th>Maximum Ground Level Concentration after proposed modification</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PM</td> <td>20.7 µg/m³ at 1.2 km in SW direction</td> </tr> <tr> <td>2</td> <td>SO₂</td> <td>13.5 µg/m³ at 1.2 km in SW direction</td> </tr> <tr> <td>3</td> <td>NO_x</td> <td>8.43 µg/m³ at 1.2 km in SW direction</td> </tr> </tbody> </table>	Sr. No.	Parameters	Maximum Ground Level Concentration after proposed modification	1	PM	20.7 µg/m ³ at 1.2 km in SW direction	2	SO ₂	13.5 µg/m ³ at 1.2 km in SW direction	3	NO _x	8.43 µg/m ³ at 1.2 km in SW direction
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3	NO _x	8.43 µg/m ³ at 1.2 km in SW direction												
xii.	Chapter 5 onwards the EIA Report chapters are not following the sequence given in Appendix III of EIA Notification 2006.	<p>Chapter 5 - Analysis of Alternatives (Technology & Site) prepared and submitted in the EIA Report.</p> <p>Alternate site: Not applicable as it is a modification project</p> <p>Alternate Technology: Technology selection criteria of Coke oven, Lime Kiln & Acid Recovery plan listed.</p>												
xiii.	<p>Additional TOR Compliance:</p> <p>a) TOR point number 2 related to green belt development has not been complied.</p> <p>b) TOR point number 4 – there is no firm commitment to</p>	<p>Total AMNS premises is 770 ha, Existing Green belt area 171 ha (22.21%) Proposed Green belt area 83 ha (12.39 %) Total green belt area after modification project: 254 ha (33%) Target for reaching 33%: Mar'2023</p> <p>Action Plan:</p> <table border="1"> <tr> <td>Cost for Greenbelt Development</td> <td>11.22 Crores</td> </tr> <tr> <td colspan="2">Target for 33% completion – March'2023</td> </tr> <tr> <td colspan="2">Planning for Tree plantation:</td> </tr> <tr> <td>Dec'2022</td> <td>2,56,000 Nos (320 days @ 800 Trees Plantation / day)</td> </tr> <tr> <td>Mar'2023</td> <td>91,549 Nos (90 days @ 1000 Trees Plantation / day)</td> </tr> </table> <p>ARP stack emission of HCl is currently around 10 mg/nm³. To bring down to less than 10 mg/nm³, unit already proposed for additional scrubber and heat exchangers in the existing ARP. For the new ARP proposed, the technology for the stack</p>	Cost for Greenbelt Development	11.22 Crores	Target for 33% completion – March'2023		Planning for Tree plantation:		Dec'2022	2,56,000 Nos (320 days @ 800 Trees Plantation / day)	Mar'2023	91,549 Nos (90 days @ 1000 Trees Plantation / day)		
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Sr. No.	Observations of the Committee	Response from PP																															
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c)	TOR point 7– Incinerator to handle oil sludge and scum from CRM has not been proposed.	Oily sludge from CRM will be disposed to Registered Vendors/common Hazardous waste incineration facility. The recyclers will recover the maximum possible oil from the sludge and the remaining will be incinerated in their facility as per GPCB authorization.																															
d)	TOR point 9 – ZLD not achieved.	Treated effluent from proposed modification will be reused through UF/RO system. RO reject will be having mainly chloride, sulphate and hardness content and after evaluation of its characteristics, it will be utilized for slag quenching. MEE is being Energy intensive as well as proposed RO reject quality also supported for Slag quenching process. Required anti-corrosion measures will be implemented in Slag quenching area. Hence, PP requests Ministry to consider this slag quenching option. ZLD project is under progress and it will be completed by Dec'2023.																															
e)	TOR point 10 – Mangrove survey has been done only in plant premises and not in the study area as required.	<ul style="list-style-type: none"> ▪ Mangrove survey has been carried out for 10 km study area. No mangrove found within the plant premises. After modification project, the unit will be going to implement ZLD, hence the no impact for the mangroves in the Tapi estuary zone. ▪ There are mangroves present outside the plant premises which are detailed in mangrove survey report. 																															
f)	TOR point 11 – CRZ mapping of the project site has not been carried out by the authorized agency, inter alia HTL/LTL mapping, CRZ land classification along with superimposition of the facilities envisaged in the project.	<ul style="list-style-type: none"> ▪ As per the CRZ study report carried out by IRS, Chennai in June 2021, all the proposed modification projects fall fully outside CRZ. The existing plant area (~ 36 Ha) falls under CRZ is already having required CRZ clearance obtained in 2006. <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>CRZ - Classification</th> <th>Area in Hectares</th> <th>Area Location</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CRZ - IB</td> <td>3.841</td> <td>Captive Jetty, Wet Basin area</td> </tr> <tr> <td>2</td> <td>CRZ - II</td> <td>19.926</td> <td>Plant Green belt, Township Green belt, Rain Water Harvest, Pond, Truck Parking area, Plant B entrance road</td> </tr> <tr> <td>3</td> <td>CRZ - III (NDZ)</td> <td>12.189</td> <td>Captive Jetty, Material Handling area</td> </tr> <tr> <td>4</td> <td>CRZ - IVB</td> <td>0.003</td> <td>Captive Jetty Water front</td> </tr> <tr> <td>5</td> <td>Outside CRZ</td> <td>734.041</td> <td></td> </tr> <tr> <td colspan="2">Total</td> <td>770.000</td> <td></td> </tr> </tbody> </table>				Sr. No.	CRZ - Classification	Area in Hectares	Area Location	1	CRZ - IB	3.841	Captive Jetty, Wet Basin area	2	CRZ - II	19.926	Plant Green belt, Township Green belt, Rain Water Harvest, Pond, Truck Parking area, Plant B entrance road	3	CRZ - III (NDZ)	12.189	Captive Jetty, Material Handling area	4	CRZ - IVB	0.003	Captive Jetty Water front	5	Outside CRZ	734.041		Total		770.000	
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g)	TOR point 12 – Cumulative impact assessment has not been done on the pretext that the capacity of the plant is not going to change while several new facilities that would add	<ul style="list-style-type: none"> ▪ This project is modification of the facility by installing auxiliary facilities, without increasing total production capacity. Detailed cumulative impact assessment is carried out considering Modification projects, Coke oven facility, other existing operations including Captive jetty. Only impact anticipated from jetty is fugitive emission during material handling which has been covered in the existing data of baseline ambient monitoring results. ▪ Proposed stack emissions from the additional 45 stacks attached to the upgraded & additional APC measures – to cater for 9.6 MTPA are considered in the Air Modelling and its predicted GLC presented. ▪ Cumulative Impact Assessment is carried out considering Environment Aspect, Impact, Duration, Magnitude, Probability and Significance. 																															

Sr. No.	Observations of the Committee	Response from PP
	pollution are being added to the EC configuration.	
h)	TOR point 13 – Rs16 Cr has been allotted for CSR. EMP as per OM of 30/9/2020 has not been furnished.	As per the OM dated 13.09.2020, action plan with the targets has been prepared on PH queries. As per the action plan, the required support & projects for the rural development will be completed within 3 years at a cost of around Rs.21 Crores as well as the Pollution related action plan in the plant premises will be completed by Dec'2023.
i)	TOR point 14 – CEMS signal for the process control in the plant control room has not been proposed.	CEMS has been provided on all process stacks and analyzer signals is being given to all the Plant control rooms for better operation control of APC measures. Apart for these Control measures, the existing process control measures provided in the DCS with the CEMS values will have better environment operational control. That is, Plant panel operators will get first alarm on 70% of the emission limits once the CEMS values crossed that range and continuous alarm on 80% of the emission limits.
j)	TOR point 19 – Ultra low NOx burners have been proposed in CRM 2 only.	For new CRM-2 ultra-low NOx burners to bring down the emission norms will be utilized. And for Coke oven modern technology (inbuilt design of refractories and heating system) to achieve emission standards will be utilized.
xiv.	General TOR point 9 – Head HSE shall report to VP and does not have any direct reporting relationship with MD of the Board. TOR 9(iv) is not addressed properly.	Head-Environment is directly reporting to Director/ Ex. Director operations and having direct access to top management to discuss all non-compliances and violations and take necessary actions to not to reoccur those. The system of reporting of Non-conformances /violation of any Environmental Law/Policy will be as per the SOP defined under the Environment Management System. As per the SOP, any non-conformances/ violation of Environmental Law/Policy, either identified during Internal Audits or reported by any authority or received through any source, will be discussed during the Review Meetings with Board of Directors. Under the system designated persons at all hierarchy level have been identified for ensuring adherence to the policy and compliance with the environmental laws and regulations. Also, system has been developed to take adequate measures.
xv.	General TOR point 11 – Has not been addressed as per OM of 30/9/2020.	As per the OM dated 13.09.2020, action plan with the targets has been prepared on PH queries. As per the action plan, the required support & projects for the rural development will be completed within 3 years at a cost of around Rs.21 Crores as well as the Pollution related action plan in the plant premises will be completed by Dec'2023.
xvi.	SPECIFIC TOR:	
	a) TOR number 3 – Installation of CEMS has not been done so far.	CEMS already provided to existing stacks and will be installed in proposed stacks. Analyzer signals is being given to all the Plant control rooms for better operation control of APC measures. Apart for these Control measures, the existing process control measures provided in the DCS with the CEMS values will have better environment operational control. That is, Plant panel operators will get first alarm on 70% of the emission limits once the CEMS values crossed that range and continuous alarm on 80% of the emission limits. Existing CEMS Details : <ul style="list-style-type: none"> ▪ PM & Flow Analyzers – 78 Nos. ▪ SO₂ & NO_x Analyzers – 55 Nos. ▪ CO Analyzers – 6 Nos. ▪ Effluent Quality Monitoring System (EQMS) – 3 Nos. ▪ Continuous Ambient Air Quality Monitoring Stations (CAAQMS) – 4 Nos.

Sr. No.	Observations of the Committee	Response from PP
		<p>Proposed CEMS Details:</p> <ul style="list-style-type: none"> ▪ PM & Flow, Temp & Pressure Analyzers – 53 Nos. ▪ SO₂ & NO_x & O₂ Analyzers – 7 Nos. ▪ HCL Analyzers – 4 Nos
	b) TOR number 4 – Analysis of toxic metals including Hg, As, F is not available in EIA report.	No emissions of mercury, arsenic, fluoride from our process stacks as our raw materials analysis shows its presence in negligible quantity. Stack emission analysis for toxic metals including mercury, arsenic and fluoride emissions was carried out and their presence was not detected.
	c) TOR number 19, 20 (Page 40 pdf of EIA report) – On page 2-106 of EIA report details of toxic metals and waste in the slag has not been furnished.	Toxic metal content and TCLP test for waste materials mainly slags carried out and as per the results, these slags are non-hazardous.
xvii.	There are lots of non-compliances to TOR conditions in EIA report as mentioned above	All TOR points are compiled-with as mentioned above. Updated sheets along with supporting annexures submitted in the Revised EIA report
xvii i.	There is no firm commitment on installation of CDQ for the Coke Oven Plant.	The management is going for CDQ for the coke oven plant. CDQ will generate 92 Tonnes / Hour steam at 9.6 MPa.
xix.	Multiple Effect Evaporator (MEE) for RO reject has not been proposed. It is mentioned that RO reject shall be used for BF slag quenching. It may be noted that RO reject is highly toxic and on evaporation during slag quenching shall result into air pollution and heavy corrosion of structures around.	Treated effluent from proposed modification will be reused through UF/RO system. RO reject will be having mainly chloride, sulphate and hardness content and after evaluation of its characteristics, it will be utilized for slag quenching. MEE is being Energy intensive as well as proposed RO reject quality also supported for Slag quenching process. Hence, we are requesting Ministry to consider this slag quenching option. Required corrosion control measures will be taken in the slag quenching area.
xx.	Percentage of hot charging of slabs and billets has not been committed for energy conservation.	Commitment for hot charging of slabs & billets is made and it will be around 25%.
xxi.	BF gas dry cleaning is not proposed.	For the proposed Blast furnaces (BF) in the upcoming expansion project, Dry cleaning will be implemented. Existing BF will also be upgraded in our 15.6 MPTA expansion project and in that, we will explore the possibility of converting Wet GCP to Dry GCP.
xxii.	Secondary FES is proposed on EAF in SMP 2. Common system has been proposed for all	Common system is being implemented for Roof extraction system only and for the all the furnaces, we will have individual FES for better control.

Sr. No.	Observations of the Committee	Response from PP
	furnaces which is risky from balancing point of view.	
xxiii i.	As per GBCB consent 27572 KLD treated effluent is discharged in Tapi river while EC of 2016 mentions ZLD.	<p>With this modification project, PP will achieve the ZLD and target: Dec'2023.</p> <p>Total Treated Water Generation Post Modification – 19793 M3/ Day</p> <ul style="list-style-type: none"> ▪ RO System - Phase 1 – 6000 M3/ Day Target Jan'23 ▪ LOI Issued to Party and Civil works started ▪ RO System – Phase 2– around 14000 M3/ Day, Target Dec'23 ▪ RO Reject Water to be used for Slag Quenching purpose ▪ Plan to Convert the Existing Treated water Open channel network to Closed Pipe Line Network in line with Environment Guidelines. ▪ Total Network planned: 7 km ▪ Pipe Line Network Laid : 3.5 km ▪ Plants Covered in first Phase : SMP-1,HSM,CRM-DSC,ASU, SMP-2, DRI-5-6,COREX-1-2,PLATEMILL, INOX ASU <p>Overall Estimated Cost: 70 Crores.</p>
xiv.	Chapter 2 of EIA report is not in the format of Appendix III of EIA Notification of 2006. Chapter 4 is generic. Impacts have not been quantified except for incremental concentration of pollutants. Mitigation measures have also not been quantified.	Changed the chapter 2 as per EIA Notification of 2006. Detailed Impacts and Mitigation after quantification and significance analysis is incorporated in Chapter-4.
xv.	In new Sinter plants technologies like MEROS for dioxin and furan emission control and Sinter cooler waste heat recovery for power generation have not been proposed.	New Sinter plants are proposed under upcoming 9.6 to 15.6 MTPA expansion and MEROS like technology will be implemented in that expansion.
xvi.	Impact matrix in table 4.7 of EIA report does not present realistic scenario in the absence of any quantification and significance analysis of impacts.	The detailed impact matrix table has been revised after quantification and significance analysis of impacts. Accordingly, revised EIA report submitted.
xvii.	Post Project Performance monitoring schedule for PCDs is not given.	As directed, Pollution Control performance monitoring will be carried out on Annual basis. This is included in the Environment Monitoring Chapter 6 of the revised EIA report
xviii i.	Only CSR activities have been listed in chapter 7. PH related and SIA related activities have not been described and budgeted as per OM 30/9/2020	As per OM 30/9/2020, PH related and SIA related activities revised and submitted in chapter 7 of the revised EIA report. The same has been detailed in these Brief write-up point No.13.

Sr. No.	Observations of the Committee	Response from PP
xix.	Chapter 8 is EMP (Chapter 10 as per EIA Notification 2006). Environment Management Cell details are not available as required under TOR 9.	PP revised the chapter details as per EIA Notification'2006 and submitted the EMP chapter as Chapter -10 in the revised EIA report. Head-Environment with qualified Environment team is directly reporting to Director/ Ex. Director operations and having direct access to top management to discuss all non-compliances and violations and take necessary actions to not to reoccur those.
xxx.	Chapter on alternate site and technology has been kept blank.	Chapter 5 - Analysis of Alternatives (Technology & Site) prepared and submitted in the revised EIA Report. Alternate site : Not applicable as it is an modification project Alternate Technology: Technology selection criteria of Coke oven, Lime Kiln & Acid Recovery plan listed.
xxx i.	Chapter 12 heading is wrong, not as per EIA Notification. It is mentioned as "Consultant Engaged"	PP changed the name as "Disclosure of Consultants Engaged" as per EIA Notification'2006 in the revised EIA report submitted. Please refer Chapter-12 in EIA.
xxx ii.	Signature of EIA team are scanned.	PP submitted the updated Undertaking of the consultants with signature in the revised EIA report.

53.10.25 During the meeting, project proponent submitted written submission on the following points:

- i. 33% green belt in the plant premises will be completed by December, 2022 and the revised greenbelt action plan is given as below:

Location	Total area	Existing green belt area (ha)		Proposed green belt area (ha)		Total green belt area (ha)	
Plant	670	136.05	20.31%	86	12.83%	222.05	33.14%
Township	100	34.95	34.95%	--	--	34.95	34.95%
Total (ha)	770	171	22.21%	86	12.83%	257	33.38%

Particular	Details
Green belt in ha	86 ha
No of trees to be planted	3,60,110 Nos.
Cost for greenbelt development	12.0 crores
Target for 33% completion –Dec'2022	
Planning for tree plantation: Dec'2022	3,60,110 no (320 days @ 1126 trees plantation/day)

- ii. Zero liquid Discharge (ZLD) scheme for the entire complex will be implemented by March, 2023.
- iii. Detailed action plan with monitoring committee details for the Enterprise Social Commitment (ESC) mentioned in the 2016 Environment clearance (Specific Point No. xvii) - will be submitted to MoEF&CC Regional office, Gandhinagar within 15 days.
- iv. Dry Gas cleaning system will be implemented for the existing Blast furnace within 5 years from the date of Modification Project Environmental clearance.

- v. Sinter cooler heat recovery system for the existing Sinter plant will be implemented within 3 years from the date of Modification Project Environmental clearance.
- vi. Plant wise usage details of natural gas / Blast furnace gas/COREX Gas / Coke oven Gas & Coal/Coke is submitted.

Name of facilities	BF gas	COG	Tail Gas	Natural Gas	COREX gas	Coal + Coke
Coke oven plant	Yes	Yes	No	No	No	Coal is raw material
Sinter plant-1	No	No	No	Yes	No	Coke fines used for sintering process
BF-1	Yes	No	No	Yes	No	PCI coal and coke used in process
Corex	Yes	No	No	No	Yes	Coal and coke used in process
SMS-1	No	No	No	Yes	No	No
SMS-2	No	No	No	Yes	Yes	No
CSP	No	No	No	Yes	Yes	No
HSM-RHF-1	No	No	No	Yes	Yes	No
Lime plant 1-4	No	No	No	Yes	No	No
Lime plant 5-8	No	No	No	Yes	Yes	No
Lime rotary Kiln	No	No	No	Yes	Yes	No
Plate Mill	No	No	Yes	Yes	Yes	No
CRM-1	No	No	No	Yes	No	No
CRM-2	No	No	No	Yes	No	No
DRI 1-4	No	Yes	No	Yes	No	No
DRI 5-6	No	Yes	No	Yes	Yes	No
Pipe Mill	No	No	No	Yes	No	No
Coal drying plant for CPP	No	No	No	No	Yes	No
CPP-1/19 MW	Yes	No	No	Yes	No	No
Bhander Power	No	No	No	Yes	No	No
COG: Coke Oven Gas; BF gas: Blast Furnace gas Surplus Corex gas is forwarded to 270 MW power plant of Essar Power Hazira Ltd situated at Hazira.						

- vii. Revised action plan for the PH queries (Environment management plan) is submitted. Revised action plan is updated at para 53.10.13 above.
- viii. Hot Rolled Coil (HRC) production at AMNS Hazira plant will be through hot charging with a minimum target of 65% hot charging for Billets charging (if any) will be 85% minimum.
- ix. The following units are being permanently dropped from the 2016 Environment Clearance:
- Blast Furnace :3.0 MTPA,
 - Coke oven: 1.2 MTPA,
 - Billet caster: 2.37 MTPA

- Pellet Plant: 4.0 MTPA,
 - Rebar mill: 1.6 MTPA,
 - Wire rod mill: 0.7 MTPA
 - CPP: 48 MW
 - Sinter plant: 7MTPA
- x. However, Sinter Plant (7 MTPA) will be implemented along with the proposed Upstream expansion project from 9.6 MTPA to 15.6 MTPA.

Observations of the Committee

53.10.26 The Committee noted the following:

- i. The Committee noted that the EIA/EMP report for the expansion project is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.
- ii. Project proponent has dropped the following facilities from existing EC dated 09/03/2016. Further, sinter plant of 7 MTPA is proposed to be implemented along with the proposed Upstream expansion project from 9.6 MTPA to 15.6 MTPA. In view of the proposed dropping/shifting of sinter plant under proposed expansion, PP assured to obtain amendment in ToR dated 03/12/2021 for expansion of Integrated steel plant from 9.6 MTPA to 15.6 MTPA (liquid steel) with respect to the unit configuration of the different units of the existing and proposed expansion project.
 - Blast Furnace :3.0 MTPA
 - Coke oven: 1.2 MTPA
 - Billet caster: 2.37 MTPA
 - Pellet Plant: 4.0 MTPA
 - Rebar mill: 1.6 MTPA
 - Wire rod mill: 0.7 MTPA
 - CPP: 48 MW
 - Sinter plant: 7 MTPA
- iii. 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 found it satisfactory.
- iv. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of all the existing EC and found it's satisfactory.
- v. The EAC also deliberated on the response to public representation received and written submissions submitted during meeting by the proponent and found it satisfactory.
- vi. In order to reduce the particulate matter level in ambient air, PP committed to use only gas based fuels in all the units of existing steel plant except coke oven plant, sinter plant -1, Blast furnace 1 and corex plant.
- vii. As per the records made available by the proponent, there is no mangroves existing in the project site and the facilities envisaged under proposed modernization falls outside the CRZ area.

Recommendations of the Committee

53.10.27 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 the stipulation of 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. The additional water requirement for the proposed modernization i.e., 7489 KLD water requirement for modification project shall be drawn from Tapi River.
- ii. Green Belt shall be developed in 222.05 ha with tree density of 2500 trees per ha. (or 1000 trees per acre) all along the periphery of the project site by 31st December, 2022.
- iii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- iv. Sinter cooler heat recovery system for the existing Sinter plant shall be implemented within 3 years from the date of issue of Environment clearance.
- v. Dry Gas cleaning system shall be implemented for the existing Blast furnace within 5 years from the date of issue of Environment clearance.
- vi. The Oil scum and oily waste from CRM shall be sent to registered recyclers for oil recovery and incineration.
- vii. CEMS shall be connected to plant control room for process control to keep emissions under control. Interlocking of CEMS shall be in conformity with CPCB directions
- viii. Hot Rolled Coil (HRC) production shall be done through hot charging minimum 65% and for billets hot charging shall be minimum 85%. Remaining shall be done through reheat furnace operating on natural gas/ Corex gas.
- ix. Acid Recovery Plant (ARP) and acid fume scrubber in stack emission shall be less than 10 mg/Nm³ HCl.
- x. The Oil scum and oily waste from CRM shall be sent to Authorized recycler.
- xi. CDQ shall be installed along with a modified wet quenching tower as a standby.
- xii. In SMS plant fume extraction system for all process equipment like converters, LRF shall be independent. Common Fume Extraction System (FES) shall be provided only for roof top emissions.
- xiii. RO reject from BOD plant of Coke Oven shall not be used for slag quenching. Multi Effect Evaporator (MEE) shall be installed to handle RO reject and the MEE sludge shall be sent to TSDF.
- xiv. PM emission from all stacks (existing and new) shall be less 30 mg/Nm³.
- xv. 100% solid waste generated shall be recycled/reused/sold. No dumping is permitted.
- xvi. A wind barrier of 400 m shall be provided near Sikotar Mata Temple in Hazira Village.
- xvii. Wind barrier at raw material handling yard shall be provided and loading and unloading station shall be closed.
- xviii. Zero Liquid Discharge (ZLD) scheme for the entire complex shall be implemented by March, 2023.
- xix. All plant roads shall be paved and industrial vacuum cleaners shall be provided to clean the roads regularly.
- xx. All stock piles shall be constructed over impervious soil and garland drains/storm water drains with catch pits to trap run off material shall be constructed.
- xxi. PP shall carryout extensive rainwater harvesting and recharge as per the action plan submitted in the EIA report.
- xxii. Sulphur recovery and ammonia cracker shall be installed in Coke Oven Plant.
- xxiii. 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.

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.

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.
- 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 report 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 environmental 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, NO_x (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. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

53.11 Proposed Expansion in Cement production capacity of Existing Stand-alone Clinker Grinding Unit from 2.0 to 2.5 MTPA by **M/s. Ultra Tech Cement Limited (Unit: Roorkee Cement Works)** at Village - Nalheri Dehviran, PO - Nalhera Anantpur, Tehsil - Roorkee, District - **Haridwar (Uttarakhand)** [Online Proposal No. IA/UK/IND/254561/2022; File no: J-11011/685/2007-IA.II(I)] – **Environment Clearance under the provision of para 7 (ii) of EIA Notification, 2006 – regarding.**

53.11.1 M/s. UltraTech Cement Limited (Unit: Roorkee Cement Works) has made an online application *vide* proposal no. IA/UK/IND/254561/2022 dated 04/02/2022 along with copy of Addendum EIA/EMP Report, Form - 2 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 Category 'B' of the schedule of the EIA Notification, 2006. However, in the absence of a duly constituted SEIAA or SEAC at Uttarakhand, project was appraised as Category 'B' project at Central Level.

Details submitted by the project proponent

53.11.2 The project of M/s. UltraTech Cement Limited (Unit: Roorkee Cement Works) located at Village - Nalheri Dehviran, PO Nalhera Anantpur, Tehsil Roorkee, District Haridwar, Uttarakhand is for expansion in Cement production capacity of existing Stand-alone Grinding Unit from 2.0 to 2.5 MTPA (i.e. 25%) by installation of Roller Press along with separator and modification in existing ball mill.

53.11.3 Environmental site settings

S. No.	Particulars	Details	Remarks																																																			
i.	Total land	13.65 ha (Plant area: 12.38 ha & Truck Parking area: 1.27 ha) - [Industrial Land] The plant site is located in notified industrial area.	Land use of existing land is already industrial.																																																			
ii.	Land acquisition details as per MoEF&CC OM dated 7/10/2014	Proposed expansion will be carried out within the existing plant premises. No additional land is required. Total land is under the possession of the company.	-																																																			
iii.	Existence of habitation & involvement of R&R, if any.	<p>Plant Site: No habitation exists within the Plant site and R & R is not applicable.</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>Jahajgarh</td> <td>0.05</td> <td>SW</td> </tr> <tr> <td>Nalhera Anantpur</td> <td>0.6</td> <td>NE</td> </tr> <tr> <td>Sohalpur Gada</td> <td>0.8</td> <td>NE</td> </tr> <tr> <td>Khatakheri</td> <td>1.5</td> <td>SSW</td> </tr> <tr> <td>Iqbalpur</td> <td>1.5</td> <td>SW</td> </tr> <tr> <td>Baleki Yusufpur</td> <td>1.7</td> <td>West</td> </tr> <tr> <td>Sartheri</td> <td>2.0</td> <td>NW</td> </tr> <tr> <td>Shahjahapur</td> <td></td> <td></td> </tr> <tr> <td>Madhopur</td> <td>2.3</td> <td>ESE</td> </tr> <tr> <td>Hazratpur</td> <td></td> <td></td> </tr> </tbody> </table> <p>There are approx. 196 villages, 1 town & 1 city in 10 km radius study area.</p>	Habitation	Distance (km)	Direction	Jahajgarh	0.05	SW	Nalhera Anantpur	0.6	NE	Sohalpur Gada	0.8	NE	Khatakheri	1.5	SSW	Iqbalpur	1.5	SW	Baleki Yusufpur	1.7	West	Sartheri	2.0	NW	Shahjahapur			Madhopur	2.3	ESE	Hazratpur			-																		
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		31. 29°53'21.04"N 77°48'53.52"E																			
v.	Elevation of the project site	274 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>Project site: No water body exist within the plant site.</p> <p>Study area: Following water bodies falls within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Solani River</td> <td>4.0 km</td> <td>NNE</td> </tr> <tr> <td>Pila Khara Nala</td> <td>6.5 km</td> <td>WNW</td> </tr> <tr> <td>Sipia Nala</td> <td>7.0 km</td> <td>ENE</td> </tr> <tr> <td>Upper Ganga Canal</td> <td>7.0 km</td> <td>ESE</td> </tr> <tr> <td>Upper Ganga Canal (Deoband Branch)</td> <td>8.0 km</td> <td>SSE</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Solani River	4.0 km	NNE	Pila Khara Nala	6.5 km	WNW	Sipia Nala	7.0 km	ENE	Upper Ganga Canal	7.0 km	ESE	Upper Ganga Canal (Deoband Branch)	8.0 km	SSE	-
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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	No National Park / ESZ / ESA / Wildlife Sanctuary/ Reserve Forest / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area.	-																		

53.11.4 The existing project was accorded Environmental Clearance vide MoEF&CC letter no. J-11011/685/2007-IA. II (I) dated 05/11/2008 in the name of M/s. Jaiprakash Associates Ltd.; amended on 22/03/2018 (for transfer of EC to M/s. UltraTech Cement Ltd.) for existing Stand-alone Grinding Unit with cement production capacity of 2.0 MTPA at Village -

Nalheri Dehviran, PO - Nalhera Anantpur, Tehsil Roorkee, District Haridwar (Uttarakhand). Consolidated Consent & Authorization (CCA) issued by UEPPCB (Uttarakhand Environment Protection and Pollution Control Board vide CCA Order No.: UEPPCB/HO/Con -J-43/2019/610 dated 24/08/2019 (valid till 31/03/2024).

53.11.5 Implementation status of the existing EC:

S. No.	Facilities	Unit	Existing Capacity as per EC dated 05/11/2008; amended on 22/03/2018	Implementation Status as on date	Production as per CTO
1.	Cement	Million TPA	2.0	2.0	2.0

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

S. No.	Plant Equipm ent / Facility	Existing Facilities as per EC dated 05/11/2008; amended on 22/03/2018		Proposed Unit		Final (Existing + Proposed)	
		Configurat ion (TPH)	Capaci ty (MTP A)	Configurat ion (TPH)	Capaci ty (MTP A)	Configurat ion (TPH)	Capaci ty (MTP A)
1.	Cement	275	2.0	75*	0.5	350	2.5

*Note - The existing cement mill is of 275 TPH capacity. Installation of Roller Press will increase the production capacity of mill from 275 TPH to 350 TPH to achieve the 2.5 Million Tonnes Cement.

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

S No	Name of Raw Material	Quantity (MTPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total After Expansion		
For PPC						
1.	Clinker	0.9075	0.2269	1.134	UTCL Aditya Cement Works, Vikram Cement Works, Kotputli Cement Works & other UTCL Plants	By Rail till Modinagar Railway Siding & further 145 km by Road
2.	Gypsum	0.0675	0.0169	0.084	Harkaran Agro, Patiala, Punjab; Baba Chemicals, Jammu & Kashmir; and Rajasthan	200 - 650 km by Road

S No	Name of Raw Material	Quantity (MTPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total After Expansion		
3.	Fly Ash	0.5250	0.1313	0.656	Nabha Power Plant, Rajpura; CPP - M/s. Century Pulp & Paper, Lalkuan; DCRTPP, Yamuna Nagar; & Panipat Thermal Power Station	90 -245 km by Road
For OPC						
1.	Clinker	0.453	0.113	0.566	UTCL Aditya Cement Works, Vikram Cement Works, Kotputli Cement Works & other UTCL Plants	By Rail till Modinagar Railway Siding & further 145 km by Road
2.	Gypsum	0.023	0.006	0.028	Harkaran Agro, Patiala, Punjab; Baba Chemicals, Jammu & Kashmir; and Rajasthan	200 - 650 km by Road
3.	Fly Ash	0.025	0.006	0.031	Nabha Power Plant, Rajpura; CPP - M/s. Century Pulp & Paper, Lalkuan; DCRTPP, Yamuna Nagar; & Panipat Thermal Power Station	90 -245 km by Road

53.11.8 Water requirement for the existing Grinding Unit is 215 KLD. Additional quantity of 10 KLD water will be required for expansion in cement production capacity of existing stand-alone Clinker Grinding Unit from 2.0 to 2.5 MTPA. Thus, the total water requirement after expansion will be 225 KLD which is being / will be sourced from Ground Water. NOC for 320 KLD for plant and colony has been obtained from Central Ground Water Board, Uttarakhand vide their letter no. CGWA/NOC/IND/ORIG/2021/10627 dated 22/01/2021 (valid up to 21/01/2024).

53.11.9 Power requirement for the existing Grinding Unit is 7.0 MW. Additional 3.5 MW of power will be required for expansion in cement production capacity of existing stand-alone Clinker Grinding Unit from 2.0 to 2.5 MTPA. Thus, the total power requirement after expansion will be 10.5 MW which is being / will be sourced from Uttarakhand Power Corporation.

53.11.10 Baseline Environmental Studies (Post project monitoring data)

Period	April, 2021 to September, 2021																				
AAQ parameters at 03 locations	PM _{2.5} - 43.0 to 51.0 µg/m ³ PM ₁₀ - 55.0 to 76.0 µg/m ³ SO ₂ - 13.6 to 16.83 µg/m ³ NO _x - 14.4 to 16.2 µg/m ³																				
AAQ modeling (Incremental GLC)	PM - 0.239 µg/m ³																				
Ground water quality at 03 locations	pH - 6.93 to 7.81 TDS - 368.74 to 455.26 mg/l Fluoride - 0.29 TO 0.46 mg/l																				
Noise levels at 04 locations	Noise Level During Day Time - 44 to 59 Leq dB (A) Noise Level During Night time - 33 to 48 Leq dB (A)																				
Traffic assessment study findings	<ul style="list-style-type: none"> ▪ Traffic Study has been conducted at SH - 28 which is 180 m from plant site in East direction. ▪ Transportation of raw material & finished product will be done 100% by road. ▪ Existing PCU is 112.38 PCU/hr on SH-28 (NH/SH/MDR) and existing level of service (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>SH-28</td> <td>112.38</td> <td>625</td> <td>0.18</td> <td>A</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ▪ PCU load after proposed project will be 112.38 (Existing) + 10.0 (Additional) PCU/hr and level of service (LOS) will be: <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>SH-28</td> <td>10.0</td> <td>625</td> <td>0.19</td> <td>A</td> </tr> </tbody> </table> <p><i>*Note: Capacity as per IRC -. 106 - 1990 Guide line for capacity for roads</i></p> <p>Conclusion: The level of service will be excellent after including additional traffic due to proposed project.</p>	Road	V Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	SH-28	112.38	625	0.18	A	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	SH-28	10.0	625	0.19	A
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SH-28	10.0	625	0.19	A																	
Flora and fauna	No Schedule – I species exists in the study area. No National Park, Wildlife Sanctuary, Biosphere Reserve, Reserve Forest and Protected Forest falls within the 10 km radius of the study area.																				

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

S. No.	Type of Waste	Waste	Source	Quantity generated	Mode of Treatment / Disposal
1.	SW	Dust	APCE	-	Recycled into the process.
2.	SW	Sludge	STP	~0.06 TPM	Utilized as manure for the existing greenbelt/plantation.
3.	HW	Used Oil / Waste Oil	Different sections of Plant maintenance	~2.5 KL/annum	Sold to the authorized CPCB recyclers
4.	HW	Batteries	Different sections of Plant maintenance	~1.2 MT/annum	Sold to registered vendors as per Battery waste Management Rules, 2020.

53.11.12 **Public Consultation**

Environment Clearance for the said project was obtained from MoEF&CC, New Delhi vide letter no. J-11011/685/2007-IA. II (I) dated 05/11/2008 and no public hearing / consultation was required as per the section (iii) Stage (3) Para (i)(b) of EIA Notification, 2006 as the plant site is located in notified area / industrial area. However, Company has proposed INR 0.8 Crores for various CSR activities in the study area for next three years.

53.11.13 Total cost for the expansion project is Rs. 121 Crores. The capital cost for environmental protection measures is Rs. 0.93 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion is Rs. 0.43 Crores per annum. Manpower requirement for proposed expansion project will be 07 persons during operation phase which will be sourced from local area as per their qualification.

S. No.	Description of Item	Capital Cost (In Rs. Lakhs)	Recurring Cost (In Rs. Lakhs)
1.	Maintenance of Main Bag Filters	840	3.89
2.	Environment Monitoring	30.16	24.31
3.	Greenbelt/Plantation maintenance	-	13.0
4.	Installation of Bag Filters	63.7	1.8
Total		933.86	43.0

53.11.14 Existing 5.09 ha area (i.e., 37% of the total plant area) has been developed under greenbelt/plantation with total sapling of 30120 trees and same will be maintained in future.

53.11.15 It has been reported that following will be resource consumption after the proposed change:

Parameter	Existing Requirement as per existing EC letter dated 05/11/2008	After Proposed change under Para 7(ii)	Remarks
Land area (ha)	Plant Area: 12.3	Plant Area: 12.3	No change in the plant area

Parameter	Existing Requirement as per existing EC letter dated 05/11/2008	After Proposed change under Para 7(ii)	Remarks
		Parking Area: 1.27	
Greenbelt & Plantation (ha)	5.09	5.09	37% of total plant area i.e. 13.65 ha has been already developed.
Water (KLD)	215	225	10 KLD additional water is required.
Power (MW)	7.0	10.5	3.5 MW additional power will be required
Raw Material(MTPA)	Clinker: 1.36 Gypsum: 0.0905 Fly ash: 0.55	Clinker: 1.70 Gypsum: 0.11 Fly ash: 0.69	Raw Material will be increased to achieve 25% expansion
Product: Cement (MTPA)	2.0	2.5	25% increase

53.11.16 Pollution load assessment:

Particulars	As per EC dated 05/11/2008	After Proposed change under Para 7(ii)	% Increase/decrease
Air – PM	0.4 gm/sec.	0.5 gm/sec.	0.1 gm/sec. increase
Industrial Waste Water Discharge	Nil	Nil	No change
Domestic waste water generation	35 KLD	35 KLD	No change; Domestic waste water is being/will be treated in STP and recycled water is being/will be used in greenbelt.
Solid & Hazardous Waste	Sludge – 0.06 TPM	Sludge – 0.06 TPM	No change
	MSW - 15 kg/day	MSW - 15 kg/day	No change
	Waste/Used oil: 2.5	Waste/Used oil: 2.5 MTPA	No change
Traffic Load	Existing: 322Trucks	After Proposed expansion: 402 trucks	Increase in 80 number of trucks
Specific Power Consumption	30 KWH per ton of cement	28 KWH per ton of cement	Specific Power will be reduced.

53.11.17 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

- 53.11.18 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [S. No. 103, List of ACOs with their Certificate/ Extension Letter no. NABET/EIA/2023/RA 0186 valid till 07th February, 2023; Rev. 18, January 05, 2022].

Certified compliance report from Regional Office:

- 53.11.19 The Status of compliance of earlier EC was obtained from Regional Office (North Central Zone), MoEF&CC vide letter no. IV/ENV/UTR/IND-10/60/2008/1118 dated 02/12/2021. On the basis of overall compliance status of unit, it has been construed that there are no non-compliances. Further, following observations have been made during monitoring:
- a) The project proponent may explore more areas within the plant premises for more plantation of native species.
 - b) The project proponent may facilitate for the repairing and plantation along the approach road to the plant premises and external parking areas.

Observations of the Committee

- 53.11.20 The Committee noted the following:
- i. PP has sought for Environment Clearance under para 7(ii) of EIA notification, 2006.
 - ii. Existing water requirement is 215 KLD which after expansion shall increase to 225 KLD. Water is drawn from ground.
 - iii. After capacity expansion, the demand of High Speed Diesel shall increase by 9714 LPD.
 - iv. 1.27 ha land is also needed additionally.
 - v. Power demand shall go up from 7 MW to 10 MW.
 - vi. PM emissions in absolute terms shall increase by 25 % i. from 4.0 gm/sec to 5.0 gm/sec.
 - vii. Raw Material requirement shall also go up.
 - viii. Traffic load shall go up by 80 trucks per day.
 - ix. Details on upgradation of APCD's have not been furnished.
 - x. Plant photographs indicate high fugitive emission in the plant premises.
 - xi. AAQ data for the plant have also not been furnished.

Recommendations of the Committee

- 53.11.21 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form to address the shortcoming at para 53.11.20 above and submit the revised application as per the provisions of EIA Notification, 2006.
- 53.12 **Sponge Iron Plant (4x100 TPD), Induction furnace (2x12T+1x12T), Rolling Mill (90,000 TPA) and 18 MW power plant [6 MW WHRB, 2 MW Coal char based and 10 MW Coal based] of M/s. Jharkhand Ispat Private Limited located at Hesla, P.O. Argada, District Ramgarh, Jharkhand [Online Proposal No. IA/JH/IND/236898/2020, File No. J-11011/41/2013-IA-II(I)] – Reconsideration for grant of Environment Clearance as per S.O. 804(E) dated 14/03/2017 based on ADS reply – regarding.**
- 53.12.1 M/s. Jharkhand Ispat Private Limited has made an online application vide proposal no. IA/JH/IND/236898/2020 dated 15/11/2021 along with copy of EIA/EMP report, Form – 2 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) under

Category “A” of the schedule of the EIA Notification, 2006 and attracts provisions of S.O. 804 (E) issued by MoEF&CC dated 14/03/2017 for the projects under Violation.

- 53.12.2 The aforesaid proposal was recommended for grant of ToR by the EAC – Violation and accordingly ToR was accorded on 9/11/2020. The proposal for EC is being appraised by the sectoral EAC. With the prior consent of the Chairman, EAC – Industry 1 sector, Shri K. Gowrappan, Environment Expert has been co/opted for appraisal of the instant proposal consideration.

Details submitted by Project proponent

- 53.12.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
PP made online application dated 25/04/2018 to (Industry-1). Later on, PP requested the MoEF&CC on 27/11/2019 to transfer the proposal made in EAC (Industry-1) to EAC (Violation) as ‘Lateral Proposal Entry’ as per MoEF&CC Office Memorandum dated 09/09/2019.	31 st EAC (Violation) held on 28 th Feb, 2020, 33 rd EAC (Violation) held on 18-19 th May, 2020, 36 th meeting of EAC (Violation) held on 21/09/2020	Terms of Reference recommended	09/11/2020	08/11/2024

- 53.12.4 The project of M/s. Jharkhand Ispat (P) Ltd (JIPL) located in village-Hesla, P.O. -Argada, Ramgarh District, Jharkhand is for enhancement of Production of Sponge Iron from 0.06 to 0.12 million tons per annum (MTPA), Production of 0.108 MTPA Billets, production of 0.09 MTPA Rolled products along with 18 MW Captive Power Plant (WHRB – 6 MW & AFBC – 12 MW).

- 53.12.5 Environmental Site Settings:

S No	Particulars	Details	Remarks
1	Total land	14.38 ha [Private:14.38 ha]	Land Use: Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	The existing units is installed in 25.54 Acres (10.34 Ha.) of land which is owned by JIPL. Company has taken adjacent land area of 10 Acres (4.04 Ha.) on 30 years lease. Thus, the total land after expansion will be 14.38 ha and total land is under possession of JIPL.	
3	Existence of habitation & involvement of	Project Site: Nil Study area:	No R&R is involved.

S No	Particulars	Details			Remarks
		Habitation	Distance	Direction	
	R&R, if any.	Argada Vilage	0.08 km	NW	
		MahuwaTand	0.26	East	
4	Latitude and Longitude of all corners of the project site.	Point	Latitude	Longitude	
		A	23 ^o 39'00.0"N	85 ^o 27'48.8"E	
		B	23 ^o 38'53.5"N	85 ^o 27'42.8"E	
		C	23 ^o 38'50.3"N	85 ^o 27'45.0"E	
		D	23 ^o 38'44.0"N	85 ^o 27'39.4"E	
		E	23 ^o 39'46.1"N	85 ^o 27'54.3"E	
		F	23 ^o 38'51.2"N	85 ^o 27'55.5"E	
		G	23 ^o 38'53.5"N	85 ^o 27'52.9"E	
		H	23 ^o 38'57.4"N	85 ^o 27'54.9"E	
5	Elevation of the project site	335 m above mean sea level			
6	Involvement of Forest land, if any	No involvement of Forest land.			
7	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Project Site: No water bodies within the project site.			HFL Details for the Site: The project site level is 335 meters above MSL which is higher than the HFL (316.68 meters) of River Damodar reported on 09/1976 at G&D Site, CWC, Naisarai, Ramgarh Cantt as per Letter obtained from Dept of Water Resources, CWC, Damodar Division.
		Study area			
		Water Body	Distance	Direction	
		River Damodar	0.3 km	South	
8	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil.			
		However, following forests are existing in the study area: PF at 5.0km (SW), PF at 5.5km (NNE), PF at 8.4km (South), PF at 9.2 km (NNW).			

53.12.6 Chronology of exiting NOC/ Clearances:

S No	Date	NOC/ Clearance	Detail
1.	31/07/2003	NOC*	Issued by Jharkhand State pollution Control Board (JSPCB) for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD)
2.	06/11/2006	NOC**	Issued by JSPCB for another Sponge Iron unit: 200 MT/day (DRI Kiln: 2x100 TPD) and MS Billets: 240 TPD (IF: 2x12 T with Billet Caster)
3.	24/12/2011	CTO	Issue by JSPCB for Sponge Iron/ 4x100 TPD, M.S. Billet/240 TPD.
4.	10/12/2012	CTO*** renewal	Issued for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD).
5.	10/10/2020	CTO renewal	Issued for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD) and valid up to 30/09/2021.

Note: * As the project cost was less than 100 Cr., the environmental clearance as per EIA Notification, 1994 was not required.

** PP has been committed Violation under EIA Notification 14th September, 2006. CTO was granted till 31/12/2011.

*** JSPCB directed to PP to give clarification in person to Member Secretary as to why the application for grant of CTO for 2x100 TPD sponge Iron Plant and 240 TPD MS Billets plant installed during 2006 should not be revoked. Thereafter, JSPCB granted CTO only for operation of 2x100 TPD Sponge Iron Plant, installed during the year 2013.

53.12.7 After revoked the facilities under violation by JSPCB during CTO renewal, PP sought for Environment Clearance for the following:

- M/s. Jharkhand Ispat Private Limited submitted application on 11/01/2013 for grant of ToR to Obtaining Environmental clearance for the enhancement of sponge iron production from 60,000 TPA to 120,000 TPA and production of 72,000 TPA MS Billets through already installed 2x100 TPD DRI Kiln and 2x12T Induction Furnace under violation; and for the proposed 1x12T Induction furnace for production of 36,000 TPA MS Billets along with installation of additional 300 TPD Rolling Mill for production of 90,000 TPA TMT bars along with 18MW Captive Power Plant (12MW AFBC & 6 MW WHRB), under expansion.
- Proposal was considered in 7th Re-EAC (Industry) held on 04/04/2013 and as the proposal was for violation, MoEF&CC vide letter dated 12/06/2013 directed PP to submit compliance as per OM dated 12/12/2012. Accordingly, PP submitted the Board resolution and credible action to MoEF&CC on 04/01/2014.
- Proposal was considered in 31st Re-EAC (Industry) held on 08/01/2015 and again considered on 1st meeting of EAC held on 20/11/2015 and ToR for the project was recommended, subsequently MoEF&CC granted the ToR on 08/01/2016.
- After conducting the public hearing on 06/05/2017 final EIA submitted on 25/04/2018. EDS was issued by MoEF&CC dated 17/01/2019 mentioned “the proposal is involved violation under the provisions of EIA notification, 2006. Therefore, PP was requested to make application under violation after issue of such notification for dealing of violation proposals”. The proposal is delisted from Ministry’s website on 07/06/2019.

- PP requested MoEF&CC to relist the proposal and transfer the same to the violation committee as 'lateral Proposal Entry', as per MoEF&CC Office Memorandum dated 09/09/2019.
- Proposal was considered in 33rd meeting of EAC (Violation) held on 18/05/2020. committee recommended to submit the duly signed hard copy of the following documents:
 - a) Revised Form/1 and PFR having details of Violation.
 - b) Year/wise production details including total cost of the project, prior to September, 2006.
- PP submitted the sought documents by EAC (Violation) to MoEF&CC on 08/09/2020.
- Proposal was considered in 36th meeting of EAC (Violation) held on 21-22nd September, 2020. The EAC, after detail deliberation appraised the instant proposal and confirmed the case to be of violation of the EIA Notification, 2006 and recommended for issuing the ToR. Accordingly, MoEF&CC granted the ToR on 09/11/2020.

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

Sl. No	Project Details	Existing Installed Units				Proposed Units		Total (Existing + Proposed)	
		Non/Violating		Violating Units		Unit	Prod. (TPA)	Unit	Prod. (TPA)
		Unit	Prod. (TPA)	Unit	Prod. (TPA)				
1.	Sponge Iron Plant	2x100 TPD	60,000	2x100 TPD	60,000	--	--	4x100 TPD	120,000
2.	Induction Furnaces	--		2x12T		1x12T		3x12T	
3.	Billet Caster			2strands 6/11m	72,000	1strand 6/11m	36,000	3strand 6/11m	108,000
4.	Rolling Mill	--		--		300 TPD	90,000	300 TPD	90,000
5.	Captive Power Plant AFBC Boiler WHRB	--		--		1 4	12 MW 6 MW	1 4	12 MW 6 MW

53.12.9 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.	Item	Requirement MT per Year				Source	Mode of Transport (Distance w.r.t. plant)
		Existing (Non/Violating Units)	Existing (Violating Units)	Proposed	Total		
1.	Iron Ore	102,000	102,000	--	204,000	Arya Iron & Steel Co. Pvt. Ltd., Odisha	170 km by Rail 10 km from Railway Siding (Barkhakhana)
2.	Coal	84,000	84,000	70,000	238,000	CCL, Saunda	18 km by Rail 10 km from Railway Siding (Barkhakhana)
3.	Dolomite	3,000	3,000	--	6,000	Local Market	50 km by Road
4.	Scrap/ Revert Scrap	--	16,500	8,250	24,750	Local Market	20 km by Road

53.12.10 Existing water requirement for Non/violating unit: 170 KLD, and Violating unit: 406 KLD, Proposed: 2330 KLD. Total after Expansion: 2906 KLD. Thus, the make-up water requirement for the project is estimated of 2,906 KLD. Permission for drawl of 0.65MGD (2955KLD) from Damodar River has been obtained from Damodar Valley Corporation vide letter no MRO/Tariff Cell/JIPL/66 dated 04/02/2019.

53.12.11 Existing – 10.5 MW (Non-Violating – 0.8 MW & 9.7 MW for violating Units) Proposed – 7.5 MW (Expansion) Total after expansion: 18.00 MW, which will be met from Captive Power Plant. Prior to commissioning of CPP additional power will be sourced from Damodar Valley Corporation (DVC) and JBVNL.

53.12.12 Baseline Environmental Studies:

Period	01/10/2020 to 31/12/2020				
AAQ parameters at 8 locations (min and max)	PM _{2.5} = 32.6 to 56.5 µg/m ³ PM ₁₀ = 61.4 to 95.8µg/m ³ SO ₂ = 8.2 to 36.8 µg/m ³ NO ₂ = 12.8 to 54.8 µg/m ³ CO = 0.66 to 1.45 mg/m ³				
Incremental GLC level	PM ₁₀ = 2.08µg/m ³ (at 0.4 km in West) PM _{2.5} = 0.83 µg/m ³ (at 0.4 km in West) SO ₂ = 1.08 µg/m ³ (at 0.4 km in West) NO _x = 0.55µg/m ³ (at 0.4 km in West)				
Ground water quality at 8 locations	pH: 7.15 to 7.62, Total Hardness: 185 to 235 mg/l, Chlorides: 50.0 to 61.0 mg/l, Fluoride: 0.22 to 0.38 mg/l, Heavy metals are within the limits				
Surface water quality at 8 locations	pH: 7.42 to 7.68; DO: 4.61 to 5.20 mg/l BOD: 6.0 to 10.0 mg/l COD: 24.0 to 30.0 mg/l				
Noise levels Leq (Day and Night)	45.1 to 69.9 dB(A) for the day time and 34.9 to 56.6 dB(A) for the Night time				
Traffic assessment study findings	Traffic study has been conducted at SH-2 and Major District Road (MDR)-106 which are approximately 0.5 and 3.5 km from the plant site. Transportation of raw material, fuel & finished product will be done 100% by road. Existing PCU is 2000.5 PCU/day on MDR-106 and 3591 PCU/day on SH-2. Existing level of service (LOS) is:				
	Road	V (Volume in PCU/Day)	C (Capacity in PCU/Day)	Existing V/C Ratio	LOS
	MDR	2000.5	15000	0.13	A
	SH-2	3591	15000	0.24	B
	PCU load after proposed project will be 2135.5 PCU/Day (2000.5+				

	135) on MDR-106 and 3726 PCU/Day (3591+135) on SH-2. level of service (LOS) will be:															
	<table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/Day)</th> <th>C (Capacity in PCU/Day)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>MDR</td> <td>2135.5</td> <td>15000</td> <td>0.14</td> <td>A</td> </tr> <tr> <td>SH-2</td> <td>3726</td> <td>15000</td> <td>0.25</td> <td>B</td> </tr> </tbody> </table>	Road	V (Volume in PCU/Day)	C (Capacity in PCU/Day)	Proposed V/C Ratio	LOS	MDR	2135.5	15000	0.14	A	SH-2	3726	15000	0.25	B
Road	V (Volume in PCU/Day)	C (Capacity in PCU/Day)	Proposed V/C Ratio	LOS												
MDR	2135.5	15000	0.14	A												
SH-2	3726	15000	0.25	B												
	Note: M/s. Jharkhand Ispat Pvt Ltd has submitted an application to East Central Railways, Barkakana vide letter dated 24/08/2021 for starting the work for construction of common user railway siding. In future, on completion of the work, the material will be transported by Railways. This will help in reducing the existing vehicular traffic on MDR-106 for transportation of Raw Material and Product.															
Flora and fauna	There is no Schedule-1 Species of Fauna and Endangered Flora species present in the study area.															

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

SN	Type of Waste	Source Name	Quantity in TPA			Treatment Before Disposal	Mode of Disposal	Agreement Details for Disposal
			Non/Violating	Violating	Proposed			
1.	Dolochar	DRI Kiln	15,000	15,000	--	--	In/House AFBC Boiler	<u>MOU with Inland Power</u>
2.	Dedusting Dust	DRI Kiln	11,040	11,040	--	--	Sold to Sinter Plant	<u>MOU with Narsingh Ispat</u>
3.	Wet Scrapper Sludge	DRI Kiln	1,800	1,800	--	--	Non/hazardous. Land filling	-
4.	Slag	Induction Furnace	--	11,000	5,500	Metal recovery approx. 10%	Remaining slag, crushed and used as aggregate	--
5.	Sludge	Venturi Scrubber	--	2,200 (In dry condition)	1,100 (In dry condition)	--	Sold to Sinter Plant	<u>MOU with Narsingh Ispat</u>
6.	Scale	CCM	--	500	250	--	Sold to Sinter Plant	MOU with Narsingh Ispat
7.	Mill Scales	Rolling Mill	--	--	600	--	Sold to Sinter Plant	MOU with Narsingh Ispat
8.	Fly-ash from WHRB	CPP	--	--	27500	--	Sold to Cement Plant	MOU with Durga Cement
9.	Fly/ash from AFBC	CPP	--	--	41500	--	Sold to Cement Plant	MOU with Durga Cement
10	Bottom Ash from AFBC	CPP	--	--	10500	--	Sold to Brick kiln manufacturing	--

53.12.14 Public Consultation (Fresh PH not recommended by the EAC – Violation sector)

Details of advertisement given	01/04/2017
Date of public consultation	06/05/2017
Venue	Panchayat Bhawan, Village and P.O. Marar, Ramgarh District, Jharkhand
Presiding Officer	Additional Collector
Major issues raised	i. Plantation ii. Employment to Locals and adequate wages, iii. Agriculture affected due to pollution iv. Pollution Control Measures, v. Medical Facility and Safe Drinking Water.

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

S No	Activities	Amount in INR		
		1 st Year	2 nd Year	Total
1	Community Development			
	Installation of one number of bore/well based on Solar Pump C:\Users\HP\OneDrive\Desktop\49 EAC\I\NOC Borewell.pdf system along with water storage Tank each in Village Hesla and Mahuatand, District: Ramgarh	3,068,360 [Complete installation of bore/well having pump based on Solar power and water storage tanks]	--	30,68,360
	Greenbelt of 15m width, covering an area of 0.45 ha. will be developed along the periphery of the village Argada, District: Ramgarh, Jharkhand	450,000.00 [Greenbelt Development along the periphery of Argada Village]	--	4,50,000
2	Health Development			
	Establishment of 16 Bedded Hospital with advance medical facilities with affordable and quality services in village & P.O Marar, District: Ramgarh	4,278,631 [Civil work for two floor building]	8,222,479 [Hospital equipment, Lift, Furniture, Electrification, Air Conditioner, etc]	1,25,01,110
Grand Total in INR				16,019,470.0

53.12.15 Existing capital cost of project was 54.12 Cr. (Non/violating + Violating). The capital cost of the proposed project is Rs. 186.63Crores (after proposed expansion total capital cost of the project is Rs 240.75 Crores) and the capital cost for environmental protection measures along with the budget of activities to address Public Hearing Issues is proposed as Rs. 5.7011 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.475 Crores. The employment generation from the proposed project /

expansion is 394 Nos. The details of cost for environmental protection measures are as follows:

Sl. No.	Description of Item	Existing (Rs. in lakhs)	
		Capital Cost	Recurring Cost/Year
1	Air Pollution Control/ Noise Management	259.32	15.5
2	Water Pollution Control	68.0	6.0
3	Solid Waste / Hazardous Waste Management	4.0	1.5
4	Environmental Monitoring and Management	11.0	11.0
5	Green Belt Development	49.60	2.0
6	OH & S	18.0	11.5
7	Addressal of Public Consultation concerns	160.19	//
Total		570.11	47.5

53.12.16 Existing green belt has been developed in 1.54 ha area which is about 10.7 % of the total project area of 14.38 ha with total sapling of 2000 trees (@ 1298 trees/ha). Proposed greenbelt will be developed in 4.22 ha which is about 29.3 % of the total project area. Thus, the total of 5.76 ha area (40 % of total area) will be developed as greenbelt. A 3 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 14400 saplings will be planted and nurtured in 5.76 hectares in three years.

53.12.17 Summary of violation under EIA, 2006 furnished below:

Company has installed 2x100TPD DRI Kiln and 2x12T Induction Furnace after obtaining NOC from JSPCB on 06/11/2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006. The Damage Assessment was carried out for violation period for Construction and Operation Phase. The total amount to be spent on Remediation plan and Natural Resource Augmentation Plan and Community Resource Augmentation Plan will be Rs.562.235 Lakhs. This plan will be implemented in three years after obtaining all necessary clearances. Detail are given as below:

Yearly Budget for implementation of Remediation Plan

SNo	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1 st Year	2 nd Year	3 rd Year	Total
1	Land Environment	1.Assistance to farmers by providing seedlings, manure and Bio-fertilizers to villagers of Hesla and Maraar=Rs.46,000/- 2.Providing one tractor (Make Mahindra) with hydraulic trolley and Rotavator to be provided to each Nagar panchayat of village Hesla and Maraar =Rs.34,00,000/- 3.Providing Bundmaker, Ridger, plough for	19,35,250 (Providing Tractor, Bundmaker, Ridger, Plough and Seedlings, manure in Nagar panchayat of Hesla)	19,35,250 (Providing Tractor, Bundmaker, Ridger, Plough and Seedlings, manure in Nagar panchayat of Maraar)	--	38,70,500

SNo	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1 st Year	2 nd Year	3 rd Year	Total
		agriculture purpose to villagers of Hesla and Maraar= Rs.4,24,500/-				
2	Air Environment	1. Providing four E-Rickshaw (4-seater, Make: Mac Auto) with charger for public transport in each Barkakana, Maraar, Phulsarai and Argada villages = Rs35,00,000/- 2. Solar stove, solar street light & solar fan in Argada & Hesala village= Rs.16,54,000/-	17,50,000 (Providing 4E-Ricksaweach inBarkakanaand Maraarvillages)	17,50,000 (Providing 4E-Ricksaweach in Phulsarai and Argada villages)	16,54,000 (Solar stove, solar street light & solar fan in Argada & Hesala village)	51,54,000
3	Water Environment	1. Drinking water plant (10nos.) including bore well with solar power with water cooler including RO & UV in Argada & Hesala village- Rs1,70,00,000/- 2. Sewage treatment plant in village Hesla Rs 60,82,000/- 3. Rain water harvesting pit (@Rs.4lakhs/location) at Panchayat office of Hesla, Argada, Barkakana, Manuan, Maraar and Phulsarai villages= Rs.24,00,000/ 4. Renovation of Ponds (Includes Cleaning/ desiltation, concrete Lining) and construction of wharf and platforms in pond located in each of Argada, Hesla, Manuan, and Maraar villages (Rs.2,800,000x4 +400,000) = Rs.1,16,00,000/- 5. Construction of Covered Drainage system along with sewage pits within village Hesla = Rs.25,63,000/-	1,94,00,000 (Drinking water plant (10 nos) including borewell with solar power with water cooler including RO & UV in Argada & Hesala village & Rainwater Harvesting pit at Panchayat office of Hesla, Argada, Barkakana, Manuan, Maraar and Phulsarai villages)	1,16,00,000 (Renovation of Ponds (Includes Cleaning /desiltation, concrete Lining) and construction of wharf and platforms in pond located in each of Argada, Hesla, Manuan, and Maraar villages)	86,45,000 (Construction of Covered Drainage system along with sewage pit within village Hesla & Sewage treatment plant in village Hesla)	3,96,45,000
4	Noise Environment	1. Providing ENT clinic along with Doctor in Hesla and Argada villages= Rs 4,86,000/- 2. Distribution of Hearing aids to the needed Sr. Citizens of the Hesla, Maraar and Argada villages @ 1000x500	4,86,000 (Providing ENT specialist Clinic along with Doctor in Hesla and Argada villages)	5,00,000 (Distribution of Hearing Aids to the needed Sr. Citizens of the Hesla, Maraar	--	9,86,000

SNo	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1 st Year	2 nd Year	3 rd Year	Total
		person =Rs.5,00,000/-		and Argada villages)		
5	Biological Environment	1.Funds for conservation of fauna in Phulsarai Protected Forest to the District Forest Office=Rs.6,10,000/. Funds for conservation of aquatic life in Damodar River to the District collector/ Water resource Department = Rs. 6,30,000/-	6,10,000 (Funds for conservation of fauna residing in Naisarai Protected forest)	6,30,000 (Funds for conservation of aquatic life in Damodar River)	--	12,40,000
Total			2,41,81,250	1,64,15,250	1,02,99,000	50895500

Natural Resource Augmentation Plan along with budget

Sl. No.	Proposed Activities	Budget (Rs.)			
		1 st Year	2 nd Year	3 rd Year	Total
1	Installation of Biodegradable waste converter (Make: Reddonatura, Capacity: 75kg/day) in Argada, Manuan and Hesla village	10,00,000 (Argada)	10,00,000 (Manuan)	10,00,000 (Hesla)	30,00,000
2	Cattle food processing plant with veterinary hospital at Hesla villages	12,00,000	5,00,000	--	17,00,000
3	Biogas plant in Manuan, Barkakana and Maraar village	8,00,000 (Manuan)	8,00,000 (Barkakana)	8,00,000 (Maraar)	24,00,000
Total		30,00,000	23,00,000	18,00,000	71,00,000

Community Resource Augmentation Plan along with budget

S. No.	Proposed Activities	Budget (Rs.)			
		1 st Year	2 nd Year	3 rd Year	Total
1.	Oxygen plant at Hesla village	40,00,000	40,00,000	27,000	80,27,000

Summary of Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan

S No	Aspects	Budget (in Rupees)
1.	Estimated Cost on remediation plan based on the damage assessment due to violation.	5,08,95,500
2.	Natural resource augmentation plan for 3 years	71,00,000
3.	Community resource augmentation plan for 3 years	80,27,000
	Total	~6,60,22,500

Violation aspect:

In compliance to the specific ToR No. i, the SPCB has undertaken credible action against M/s. JIPL under the provisions of Environment (Protection) Act, 1986, by filing a court case no. 255 of 2021 before the Hon'ble District Court of Ramgarh.

53.12.18 Summary of court cases related to the project are furnished given as below:

Detail	Case1	Case 2	Case 3
Name of the court	High Court of Jharkhand, Ranchi	District Court of Ramgarh	District Court of Hazaribagh
Name of the Sub-court	--	Chief Judicial Magistrate, Ramgarh	Chief Judicial Magistrate, Hazaribagh
Case No.	W.P.(C) No. 1125 of 2014	Complaint case No. 255/2021	Complaint case No. 331/2013
Orders / Directions of the court, if any and its relevance with the proposed project	The writ is pending for final disposal. Meanwhile Hon'ble High Court has passed interim order on 24/03/2014 for stay on clause no. 27 of Consent to Operate of JSPCB dated 10/12/2012, allowing the PP to operate the expanded part of unit.	Case has been filed on 25/03/2021 to initiate credible action against the project proponent and next hearing date is scheduled 07/10/2022.	Case has been filed on 21/12/2013 to initiate credible action against the project proponent and next hearing date is scheduled 28/01/2022.
Case Details	Writ petition filed against clause no. 27 of Consent to Operate issued by Jharkhand State Pollution Control Board on 10/12/2012 asking the unit to stop the operation of expanded part (2x100TPD DRI Kiln and 240TPD Billet Plant)	Case has been filed for the offence committed u/s 15 of Environment (Protection) Act, 1986 cognizance u/s 19 of Environment (Protection) Act, 1986 in compliance of MoEF&CC TOR letter J/11011/41/2013/IA.II(I) dated 09/11/2020	Case has been filed for the offence committed u/s 15 of Environment (Protection) Act, 1986 cognizance u/s 19 of Environment (Protection) Act, 1986 in compliance of MoEF&CC letter J/11011/41/2013/IA.II(I) dated 12/06/2013

53.12.19 Name of the EIA consultant: M/s. Vardan EnviroNet [S. No. 41 in List of ACOs with their Certificate no. NABET/EIA/1922/RA 0166; valid up to 06/11/2022, Rev. 16, November 15, 2021].

Certified Compliance report from Jharkhand State Pollution Control Board

53.12.20 The Status of compliance of earlier CTO was obtained from Jharkhand State Pollution Control Board vide letter no. 476 dated 05/04/2021 in the name of M/s. Jharkhand Ispat Private Limited. As per inspection report of JSPCB, the PP is complying with the prescribed CTO conditions except management of dolochar generated from DRI kilns.

53.12.21 M/s. Jharkhand Ispat Private Limited has earlier made an online application vide proposal no. IA-JH/IND/212892/2020 dated 03/06/2021. The proposal was considered in 40th meeting of the Re/constituted EAC (Industry-I) held on 15-16th July, 2021 wherein the

Committee recommended the proposal to be returned in its present form to address the technical deficiencies.

- 53.12.22 M/s. Jharkhand Ispat (P) Ltd again made an online application vide proposal no. IA/JH/IND/236898/2020 dated 15/11/2021. The proposal was considered in 49th meeting of the Re/constituted EAC (Industry-I) held on 16 - 17th December, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee (EAC during 16 - 17th December, 2021)

- 53.12.23 The Committee noted the following:

- i. The proposal was accorded ToR on 9/11/2020 as per the provisions contained under S.O. 804 (E) dated 14/03/2017. As per para 13(3) of the said notification, no consent to operate or occupancy certificate will be issued till the project is granted the environmental clearance for the units under violation.
- ii. Violation aspect involved in the instant proposal is “PP had installed 2x100TPD DRI Kiln and 2x12T Induction Furnace without obtaining prior Environmental Clearance as per EIA Notification 2006”.
- iii. As per the information made available by the proponent i.e. page no.13 of the final EIA report and slide no. 40 of the presentation, the aforementioned units which are under violation are being operated continuously by the proponent without obtaining requisite environment clearance which is not in conformity to the provisions contained under S.O. 804 € dated 14/03/2017. Further, as per the undertaking submitted by the proponent, it has been stated that the violating units are not under operation. Thus, conflicting statements have been made by the proponent and EIA consultant regarding the operation of the violating units since grant of ToR and misled the EAC as well as the Ministry deliberately with a malafide intention to obtain EC.
- iv. The court cases reflected at para no. 53.12.18 are not given in s.no. 37 of Form 2 except case no. 255 of 2021.

Recommendations of the Committee (EAC during 16 - 17th December, 2021)

- 53.12.24 In view of the foregoing and after detailed deliberations, the committee recommended to defer the proposal and sought following additional information from the proponent.

- i. Details regarding operation of the violating units namely 2x100TPD DRI Kiln and 2x12T Induction Furnace since from the date of grant of CTE dated 6/11/2006 to till date.
- ii. Explanation shall be submitted by the proponent as well as the EIA consultant for suppressing the information in Form 2 regarding the ongoing court cases as reflected at para no. 53.12.18.
- iii. Explanation shall be submitted by the consultant regarding suppression of information regarding the operation of violating units at the time of grant of Terms of Reference accorded on 9/11/2020 under the provisions of S.O. 804 (E) dated 14/03/2017.

- iv. Action plan for the utilization of dolochar generated from the DRI kiln shall be submitted.

53.12.25 The ADS was raised by the Ministry on 28/12/2021 as per the recommendations of EAC. The proponent submitted the reply to the ADS vide letter dated 06/01/2022 uploaded on PARIVESH on 15/01/2022 as follows:

S. No.	Additional Detail Sought	Reply
i.	Details regarding operation of the violating units namely 2x100TPD DRI Kiln and 2x12T Induction Furnace since from the date of grant of CTE dated 6/11/2006 to till date	<p>Detailed status of operation of the violating units, i.e. 2x100TPD DRI Kiln and 2x12T Induction Furnace since from the date of grant of CTE dated 6/11/2006 to till date is provided with ADS reply submitted to MoEFCC.</p> <p>The violating units were operating in compliance of court order of Hon'ble High Court of Jharkhand [W.P.(C) No. 1125 of 2014] dated 24.03.2014. The court order is still prevailing.</p> <p>Further as per Additional details/Clarifications sought by MOEF&CC, JIPL has already informed via email dated 21.12.2021, that 2x100 TPD DRI Kiln (Kiln 3 & 4) was in continuous operation till March, 2021 and the 2x12T Induction Furnace along with CCM was in operation till November, 2021 on the basis of Jharkhand High Court Stay Order.</p>
ii.	Explanation shall be submitted by the proponent as well as the EIA consultant for suppressing the information in Form 2 regarding the ongoing court cases as reflected at para no. 49.12.8.	<p>Kindly refer to various instances in the EIA report wherein the consultant has mentioned that the violating units are in operation.</p> <ol style="list-style-type: none"> 1. Para No. 1 (details of violation) of Form-2 reads "Company has installed 2x100 TPD DRI Kiln and 2x12 Ton Induction Furnace after obtaining NOC from JSPCB on 06.11.2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006". 2. Para no. 2.6.2.1 at page 25 of the EIA report reads "Four numbers of 100 TPD each rotary kiln is producing 120,000 MT of sponge iron annually considering 300 working days." 3. Para 2.6.2.2 at page 28 of the EIA report reads "Two nos. 12T induction furnaces (each with two crucibles and a common power supply) are in operation through which production of 72000 TPA MS Billets is done." 4. Para 11.2.2.2 at page 248 again reproduces the above-mentioned facts that the 2x100 TPD DRI Kilns and 2x12 T induction furnace are in operation 5. It is most pertinent here to mention here that as per para no. 13.3 at page 281 of EIA report, i.e. economic benefits derived which is reproduced here "Jharkhand Ispat Pvt. Ltd has been in operation since 2003. The violation units (2x100 TPD DRI Kilns, 2x12T Induction furnaces with 2 strand 6/11m billet

S. No.	Additional Detail Sought	Reply
		<p><i>casters) were installed in the year 2006 and production from DRI unit started on 2012 and Billet production started on 2006 and is continued till date. The Violation units are still in operation as per the High court stay order [W.P.(C) No. 1125 of 2014] dated 24.03.2014 on Clause No. 27 of CTO dated 10/12/2012.”</i></p> <p>All relevant section of EIA mentioned above are provided with ADS reply submitted to MoEFCC.</p> <p>6. In Form-2, Under the heading of Court Cases, Since the Multiple Entries of Court cases is not possible while uploading the EC Application, therefore only the latest Court Case dated 25.03.2021 (Credible Action U/s 15 of E(P) Act, 1986) was uploaded.</p> <p>7. Further, in the presentation (Slide 40) made to EAC (Industry-1), it is clearly mentioned that the violating units are in operation on the basis of stay order from the High Court.</p> <p>8. Email sent to the Ministry as well as EAC on dated 10th December 2021 contains a brief write up about the project. It contains the details of the ongoing court cases against the project proponent and clearly mentions that W.P.(C) No. 1125 of 2014 is pending for final disposal and as per this court order the PP is allowed to operate the violating units.</p> <p>From the above clarifications, it is clear that no information has been suppressed about the status of operation of the unit. The details of the ongoing court cases have been mentioned in the presentation made before the EAC as well as the Brief summary sent via email dated 10th December 2021.</p>
iii.	<p>Explanation shall be submitted by the consultant regarding suppression of information regarding the operation of violating units at the time of grant of Terms of Reference accorded on 9/11/2020 under the provisions of S.O. 804 € dated 14/03/2017</p>	<p>Kindly refer to following instances in the Terms of Reference application submitted to MoEF&CC on 25/04/2018, wherein the consultant has mentioned that the violating units are in operation:</p> <ol style="list-style-type: none"> 1. In Form-1 submitted to MoEFCC for ToR at Point No. 15, it was mentioned that there is an ongoing case in Jharkhand High Court (writ petition no. 1125/2014) for stay on JSPCB letter dated 10/12/2012. 2. The above mentioned High court order was also attached as Annexure with Form-1 submitted to MoEFCC 3. In 33rd EAC (Violation) meeting held on 19.05.2020 for ToR, Project proponent and EIA Consultant informed the EAC about the Jharkhand High Court stay order on JSPCB letter dated 10/12/2012 to the Committee members through presentation Slide No. 6, while explaining the chronology of events. As per Slide No. 6 containing reference of Letter dated 12.05.2017⁵ submitted by JtpL to MoEFCC, it was clarified that the

S. No.	Additional Detail Sought	Reply
		violation units were under operation by virtue of Jharkhand High Court Stay Order. Hence from the above clarifications, it is clear that no information was suppressed regarding the operation of violation units during the EAC (Violation) meeting for Issuing Terms of Reference
iv.	Action plan for the utilization of dolochar generated from the DRI kiln shall be submitted	The industry is generating about 30,000 TPA Dolochar through operation of 4x100 TPD DRI kiln. At present the Dolochar is being sold to M/s Godavari Commodities Limited. MoU for the same is provided with ADS reply submitted to MoEFCC. After implementation of AFBC boiler as a part of Proposed Expansion, the Dolochar (having Calorific Value of 149pprox.. 1400 kcal/kg) will be used as Raw material along with Coal in AFBC Boiler to generate 12 MW Power. Dolochar management plan is provided with ADS reply submitted to MoEFCC.

53.12.26 Also, as per the recommendations of EAC, a show-cause notice was issued to the consultant M/s. Vardan EnviroNet Pvt. Ltd. by the Ministry vide letter dated 18/01/2022. The reply submitted by the consultant vide letter dated 24/12/2022 was uploaded on PARIVESH by the proponent on 24/12/2022 as follows:

S. No.	Detail Sought	Reply
A	<i>Observations of the Committee during the 49th EAC (Industry-1) meeting</i>	
i.	The proposal was accorded ToR on 9/11/2020 as per the provisions contained under S.O. 804 (E) dated 14/03/2017. As per para 13(3) of the said notification, no consent to operate or occupancy certificate will be issued till the project is granted the environmental clearance for the units under violation	Proposal of Jharkhand Ispat Pvt Ltd (JIPL) for ToR was considered in 33 rd EAC (Violation) meeting dated 18/05/2020 as Lateral Proposal Entry, as per MOEF&CC OM 09/09/2019. The EAC (violation) had three observations in the meeting. Minutes of meeting of the 33rd EAC (Violation) were provided with ADS reply The reply of the observations of EAC (Violation) was submitted to MOEF&CC on 08/09/2020 (receiving along with documents such as Form 1, PFR, court order details, proposed TOR, production data provided with ADS reply), in which the information about High Court Order W.P.(C) No. 1125 of 2014 dated 24/03/2014 and the violation units being in operation based on the same order were mentioned and submitted to MOEF&CC. Kindly refer point no. 24 of the Form 1 and Annexure V wherein the court order is attached for the record and appraisal of MOEF&CC and EAC. Kindly refer to page no. 14 of the PFR wherein it is mentioned that the four number of 100 TPD kiln are producing 1,20,000 TPA of sponge iron . Kindly also refer to page no. 16 of the PFR wherein it is mentioned that the two nos. of 12 T induction furnace of are in operation through which production of 72,000 TPA of billets is done . Kindly also refer to page

S. No.	Detail Sought	Reply
		<p>no. 38 of the PFR wherein it is once again mentioned that <i>“M/s Jharkhand Ispat Pvt. Ltd. (JIPL) is presently operating 4 nos. of 100 TPD DRI kilns for production of 120,000 TPA sponge iron and two number of 12 Ton induction furnace with billet caster for annual production of 72000 TPA MS Billets”</i>.</p> <p>Kindly refer to Annexure 3 of the TOR application (signed documents submitted to MOEF&CC on 08/09/2020) wherein the production figures of DRI Kiln and Induction furnace have been submitted to MOEF&CC and EAC (Violation) for appraisal. As per the production figures it is very clear and evident that the unit was in continuous operation since 2006.</p> <p>It is also pertinent to mention here that an email was sent to MOEF&CC as well as EAC (violation) on dated 15/09/2020 which contained all the above documents such as Form 1, PFR, presentation, KML files, details of the court case and the production figures (<i>documents indicating that the unit was in continuous operation</i>). Copy of email sent to MOEF&CC and EAC on 15/09/2020 is provided with ADS reply submitted to MoEFCC.</p> <p>On the basis of the above submission, the proposal was reconsidered in 36th EAC (Violation) meeting dated 22/09/2020 and recommended for grant of TOR (Minutes of EAC meeting provided with ADS reply). Sir it is also very pertinent to mention here that further in response of discussions held in the EAC (Violation) meeting dated 22/09/2020, we have once again submitted the details of High Court Stay Order dated 24.03.2014 via our email dated 23.09.2020 (Email provided with ADS reply submitted to MoEFCC)</p> <p>Thereafter, ToR was accorded on 09.11.2020 as per the provisions contained under S.O. 804 (E) dated 14/03/2017.</p>
ii.	Violation aspect involved in the instant proposal is “PP had installed 2x100TPD DRI Kiln and 2x12T Induction Furnace without obtaining prior Environmental Clearance as per EIA Notification 2006”	The Violation aspects of the project proposal were installation of 2x100 TPD DRI Kiln and 2x12T Induction Furnace without obtaining prior Environmental Clearance as per EIA Notification 2006.
iii.	As per the information made available by the proponent i.e. page no.13 of the final EIA report and slide no. 40 of the	Reply in point no. (i) above clearly indicates that the information of the plant being in continuous operation has been informed to the EAC (violation) and on the basis of the above TOR has been accorded.

S. No.	Detail Sought	Reply
	<p>presentation, the aforementioned units which are under violation are being operated continuously by the proponent without obtaining requisite environment clearance which is not in conformity to the provisions contained under S.O. 804 (E) dated 14/03/2017. Further, as per the undertaking submitted by the proponent, it has been stated that the violating units are not under operation. Thus, conflicting statements have been made by the proponent and EIA consultant regarding the operation of the violating units since grant of ToR and misled the EAC as well as the Ministry deliberately with a malafide intention to obtain EC</p>	<p>Further, the same information that the plant is in continuous operation on the basis of High Court Stay order has also been provided to EAC (Industry-1).</p> <p>The EIA report made by Vardan Environet submitted to MOEF&CC on 3.6.2021. Kindly refer to various instances in the EIA report wherein it has been mentioned that the violating units are in operation.</p> <ul style="list-style-type: none"> • S.No. 1 (details of violation) of Form-2 reads “Company has installed 2x100 TPD DRI Kiln and 2x12 Ton Induction Furnace after obtaining NOC from JSPCB on 06/11/2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006”. (Provided with ADS reply submitted to MoEFCC) • Para no. 2.6.2.1 at page 25 of the EIA report reads “Four numbers of 100 TPD each rotary kiln is producing 120,000 MT of sponge iron annually considering 300 working days.” • Para 2.6.2.2 at page 28 of the EIA report reads “Two nos. 12T induction furnaces (each with two crucibles and a common power supply) are in operation through which production of 72000 TPA MS Billets is done.” • Para 11.2.2.2 at page 248 again reproduces the above-mentioned facts that the 2x100 TPD DRI Kilns and 2x12 T induction furnace are in operation • It is most pertinent here to mention here that as per para no. 13.3 at page 281 of EIA report, i.e. economic benefits derived which is reproduced here “Jharkhand Ispat Pvt. Ltd has been in operation since 2003. The violation units (2x100 TPD DRI Kilns, 2x12T Induction furnaces with 2 strand 6/11m billet casters) were installed in the year 2006 and production from DRI unit started on 2012 and Billet production started on 2006 and is continued till date. The Violation units are still in operation as per the High court stay order [W.P.(C) No. 1125 of 2014] dated 24.03.2014 on Clause No. 27 of CTO dated 10/12/2012.” <p>All relevant section of EIA mentioned above are provided with ADS reply submitted to MoEFCC that indicate the unit being in continuous operation.</p> <p>Consequent to the submission of EIA report, the proposal was considered in the 40th meeting of EAC (Industry-1) dated 15/07/2021. Kindly refer to our emails dated 6/07/2021 and another email dated 9/07/2021 sent to EAC (Industry-1) and MOEF&CC. The brief writeup sent via our</p>

S. No.	Detail Sought	Reply
		<p>email dated 9/07/2021 is provided with ADS reply submitted to MoEFCC. As per the point no. 18 details of the four court cases against the PP including the case in W.P. (C) 1125 of 2014 in Jharkhand High Court have been provided indicating that the plant is in operation on the basis of court order. The presentation made before the EAC (Industry-1) also contains the details of the court cases (as per slide no. 66)</p> <p>Kindly refer to point no. 40.1.17 of the minutes of EAC meeting dated 15th July 2021 (MoM provided with ADS reply submitted to MoEFCC) which is reproduced as follows:</p> <p><i>“Summary of violation under EIA, 2006 furnished below: Company has installed 2x100TPD DRI Kiln and 2x12T Induction Furnace after obtaining NOC from JSPCB on 06.11.2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006. The Damage Assessment was carried out for violation period for Construction and Operation Phase.....”</i></p> <p>The above statement indicates that MOEF&CC and EAC (industry-1) acknowledged the plant being in continuous operation. However, due to certain shortcomings the proposal was returned in the present form as per the 15th July 2021 EAC (Industry-1) meeting.</p> <p>The updated proposal was submitted to MOEF&CC on 3/11/2021 and was considered for appraisal in the 49th EAC (Industry-1) meeting held on 16/12/2021. Once again as per our email sent to MOEF&CC and EAC dated 10/12/2021 we have informed the MOEF&CC and EAC about the four ongoing court cases in the brief summary and presentation. Copy of email dated 10/12/2021 and copy of brief summary is provided with ADS reply submitted to MoEFCC.</p> <p>The above facts clearly indicate that Vardan Environet has performed its duty as an accredited EIA consultant for reporting the factual position about the project, its operational status and the ongoing court cases time and again to the MOEF&CC, EAC (Violation) and the EAC (Industry-1).</p> <p>After discussion of the proposal in the 49th EAC (Industry-1) meeting held on 16/12/2021, an undertaking was submitted by Shri RC Rungta, Director of Jharkhand Ispat Pvt. Ltd. vide their letter no. JIPL/095/2021-22 dated 16.12.2021 to MoEF&CC stating that units under violation, i.e. 2x100 TPD DRI Kiln and 2x12 T induction furnace</p>

S. No.	Detail Sought	Reply
		<p>along with two strands of 6/11 m billet caster are not in operation.</p> <p>On 21/12/2021, a statement (clarification) regarding the period of operation of violating units and the date of stoppage of the said units was sought by MoEF&CC vide their email. The project proponent Shri RC Rungta, Director of Jharkhand Ispat Pvt. Ltd. replied to MoEF&CC on the same date and clarified vide para 6 of his email to MoEF&CC that the units 2x100TP DRI Kiln (Kiln 3 & 4) was in continuous operation till March, 2021 and the 2x12T Induction Furnace along with CCM was in operation till November, 2021. (copy of email provided with ADS reply submitted to MoEF&CC)</p> <p>When the EIA Report was prepared the violating Units were in operation and as responsible consultant, we provided the factual status in the EIA Report. Status of operation given in the undertaking provided by the project proponent is a later development and may not be considered as conflicting statement.</p> <p>May kindly appreciate that Consultant can check the status of operation of Units when their team visit the Site for collection of data / information for preparation of EIA Report and depend on the project proponent for any important change happened after that.</p> <p>The above submissions are quite self-explanatory hence it is denied that Vardan Environet has made conflicting statements regarding the operation of violating units since grant of ToR and misled the EAC as well as the Ministry deliberately with a malafide intention to obtain EC.</p> <p>It is submitted that Vardan Environet has performed its duty as an accredited EIA consultant for reporting the factual position about the project, its operational status and the ongoing court cases time and again to the MOEF&CC, EAC (Violation) and the EAC (Industry-1).</p>
iv.	The court cases reflected at para no. 49.2.18 [49 th EAC Meeting MoM] are not given in s.no. 37 of Form 2 except case no. 255 of 2021.	<p>The S.No. 37 of Form-2 seeks for the court cases pertaining to Environment (Protection) Act/Air (Prevention and Control of Pollution) Act/Water (Prevention and Control of Pollution) Act. The most recent case, i.e. case No. 255 of 2021, which is related to Credible Action against Jharkhand Ispat Pvt Ltd. under Section 15 of E(P) Act 1986 cognizance u/s 19 of E(P) act, 1986 was uploaded in S.No. 37 of Form-2.</p> <p>Since multiple entries cannot be made in the Form-2, they have been mentioned in the brief write up sent to MOEF&CC and EAC vide our emails dated 09/07/2021 and</p>

S. No.	Detail Sought	Reply
		<p>10/12/2021, the same is also recorded in the minutes of 49th EAC (Industry-1) meeting dated 16/12/2021</p> <p>The reply against point no. (i) and (iii) of your show cause notice/ 49th EAC (Industry-1) Minutes of Meeting also indicate that we have time and again informed the MOEF&CC and EAC (Industry-1) about the ongoing court cases in various forms such as the Brief Summary, Presentation, Email, etc.</p>
B	Additional Information sought by EAC (Industry-1) during its 49th meeting	
i.	<p>Details regarding operation of the violating units namely 2x100TPD DRI Kiln and 2x12T Induction Furnace since from the date of grant of CTE dated 6/11/2006 to till date</p>	<p>Detailed status of operation of the violating units, i.e. 2x100TPD DRI Kiln and 2x12T Induction Furnace since from the date of grant of CTE dated 6/11/2006 to till date is provided with ADS reply submitted to MoEFCC.</p> <p>The violating units were operating in compliance of court order of Hon'ble High Court of Jharkhand [W.P.(C) No. 1125 of 2014] dated 24.03.2014. The court order is still prevailing.</p> <p>Further as per Additional details/Clarifications sought by MOEF&CC, JIPL has already informed via email dated 21.12.2021, that 2x100 TPD DRI Kiln (Kiln 3 & 4) was in continuous operation till March, 2021 and the 2x12T Induction Furnace along with CCM was in operation till November, 2021 on the basis of Jharkhand High Court Stay Order.</p>
ii.	<p>Explanation shall be submitted by the proponent as well as the EIA consultant for suppressing the information in Form 2 regarding the ongoing court cases as reflected at para no. 49.12.8 [49th EAC Meeting MoM].</p>	<p>Kindly refer to various instances in the EIA report wherein the consultant has mentioned that the violating units are in operation.</p> <p>S. No. 1 (details of violation) of Form-2 reads “Company has installed 2x100 TPD DRI Kiln and 2x12 Ton Induction Furnace after obtaining NOC from JSPCB on 06.11.2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006”.</p> <p>Para no. 2.6.2.1 at page 25 of the EIA report reads “Four numbers of 100 TPD each rotary kiln is producing 120,000 MT of sponge iron annually considering 300 working days.”</p> <p>Para 2.6.2.2 at page 28 of the EIA report reads “Two nos. 12T induction furnaces (each with two crucibles and a common power supply) are in operation through which production of 72000 TPA MS Billets is done.”</p> <p>Para 11.2.2.2 at page 248 again reproduces the above-mentioned facts that the 2x100 TPD DRI Kilns and 2x12 T induction furnace are in operation</p> <p>It is most pertinent here to mention here that as per para no. 13.3 at page 281 of EIA report, i.e. economic benefits derived which is reproduced here “Jharkhand Ispat Pvt. Ltd has been in operation since 2003. The violation</p>

S. No.	Detail Sought	Reply
		<p><i>units (2x100 TPD DRI Kilns, 2x12T Induction furnaces with 2 strand 6/11m billet casters) were installed in the year 2006 and production from DRI unit started on 2012 and Billet production started on 2006 and is continued till date. The Violation units are still in operation as per the High court stay order [W.P.(C) No. 1125 of 2014] dated 24.03.2014 on Clause No. 27 of CTO dated 10/12/2012.”</i></p> <p>All relevant section of EIA mentioned above are provided with ADS reply submitted to MoEFCC.</p> <p>In Form-2, Under the heading of Court Cases, Since the Multiple Entries of Court cases is not possible while uploading the EC Application, therefore only the latest Court Case dated 25.03.2021 (Credible Action U/s 15 of E(P) Act, 1986) was uploaded.</p> <p>Further, in the presentation (Slide 40) made to EAC (Industry-1), it is clearly mentioned that the violating units are in operation on the basis of stay order from the High Court.</p> <p>Email sent to the Ministry as well as EAC on dated 10th December 2021 contains a brief write up about the project. It contains the details of the ongoing court cases against the project proponent and clearly mentions that W.P.(C) No. 1125 of 2014 is pending for final disposal and as per this court order the PP is allowed to operate the violating units. We hope that from the above clarifications, it is clear that no information has been suppressed about the status of operation of the unit. The details of the ongoing court cases have been mentioned in the presentation made before the EAC as well as the Brief summary sent via email dated 10th December 2021.</p>
iii.	<p>Explanation shall be submitted by the consultant regarding suppression of information regarding the operation of violating units at the time of grant of Terms of Reference accorded on 9/11/2020 under the provisions of S.O. 804 (E) dated 14/03/2017</p>	<p>Proposal of Jharkhand Ispat Pvt Ltd (JIPL) for ToR was considered in 33rd EAC (Violation) meeting dated 18.05.2020 as Lateral Proposal Entry, as per MOEF&CC OM 09/09/2019. The EAC (violation) had three observations in the meeting. Minutes of meeting of the 33rd EAC (Violation) are provided with ADS reply submitted to MoEFCC.</p> <p>The reply of the observations of EAC (Violation) was submitted to MOEF&CC on 08.09.2020 (receiving along with documents such as Form 1, PFR, court order details, proposed TOR, production data are provided with ADS reply submitted to MoEFCC), in which the information about High Court Order W.P.(C) No. 1125 of 2014 dated 24.03.2014 and the violation units being in operation based on the same order were mentioned and submitted to MOEF&CC.</p> <p>Refer point no. 24 of the Form 1 and Annexure V wherein</p>

S. No.	Detail Sought	Reply
		<p>the court order in attached for the record and appraisal of MOEF&CC and EAC. Kindly refer to page no. 14 of the PFR wherein it is mentioned that the four number of 100 TPD kiln are producing 1,20,000 TPA of sponge iron. Kindly also refer to page no. 16 of the PFR wherein it is mentioned that the two nos. of 12 T induction furnace of are in operation through which production of 72,000 TPA of billets is done. Kindly also refer to page no. 38 of the PFR wherein it is once again mentioned that Jharkhand Ispat is operation 4x100 TPD DRI kilns and 2x12 T induction furnaces. Kindly refer to Annexure 3 of the TOR application (signed documents submitted to MOEF&CC on 08.09.2020) wherein the production figures of DRI Kiln and Induction furnace have been submitted to MOEF&CC and EAC (Violation) for appraisal. As per the production figures it is very clear and evident that the unit was in continuous operation since 2006.</p> <p>It is also pertinent to mention here that an email was sent to MOEF&CC as well as EAC (violation) on dated 15.09.2020 which contained all the above documents such as Form 1, PFR, presentation, KML files, details of the court case and the production figures (documents indicating that the unit was in continuous operation). Copy of email sent to MOEF&CC and EAC on 15.09.2020 is provided with ADS reply submitted to MoEFCC.</p> <p>On the basis of the above submission, the proposal was reconsidered in 36th EAC (Violation) meeting dated 22.09.2020 and recommended for grant of TOR. Sir it is also very pertinent to mention here that further in response of discussions held in the EAC (Violation) meeting dated 22.09.2020, we have once again submitted the details of High Court Stay Order dated 24.03.2014 via our email dated 23.09.2020</p> <p>Thereafter, ToR was accorded on 09.11.2020 as per the provisions contained under S.O. 804 (E) dated 14/03/2017.</p>
iv.	Action plan for the utilization of dolochar generated from the DRI kiln shall be submitted	<p>The industry is generating about 30,000 TPA Dolochar through operation of 4x100 TPD DRI kiln. At present the Dolochar is being sold to M/s Godavari Commodities Limited. MoU for the same is provided with ADS reply submitted to MoEFCC.</p> <p>After implementation of AFBC boiler as a part of Proposed Expansion, the Dolochar (having Calorific Value of approx. 1400 kcal/kg) will be used as Raw material along with Coal in AFBC Boiler to generate 12 MW Power. Dolochar management plan is provided with ADS reply submitted to MoEFCC.</p>

53.12.27 Based on the aforementioned reply of proponent and consultant, the proposal is considered in 52nd meeting of Reconstituted Expert Appraisal Committee (Industry-1) held on 27-28th & 31st January, 2022. The observations and recommendations of EAC is given as below:

Observations of the Committee (EAC during 27- 28th & 31st January, 2022)

53.12.28 The Committee noted the following:

- i. The violating unit is under operation based on the Order dated 24.03.2014 of Hon'ble High Court of Jharkhand in W.P.(C) No. 1125 of 2014.
- ii. The consultant as well as the proponent submitted that the information regarding operation of violation units was informed to the Ministry at the time of grant of ToR by EAC-Violation through Form I and presentation made before the EAC. The said information was also submitted in the final EIA/EMP submitted to the Ministry for appraisal process.
- iii. As per the undertaking submitted by the proponent during the EAC meeting held on 16/12/2021, the project proponent has stated that the violating units are not under operation. However, in the EIA report it has been reported that violating units are under operation.
- iv. As per the damage assessment report submitted as part of the EIA report, the production figures have been taken into account till 31/03/2020. As per the additional information submitted by the proponent, the DRI units were running till March 2021 and Induction Furnaces and CCM was being operated till November 2021. The said production details have not been taken into account for the calculation of damage assessment.

Recommendations of the Committee (EAC during 27-28th & 31st January, 2022)

53.12.29 In view of foregoing and after detailed deliberations, the Committee deferred the consideration of the proposal and sought following additional information for further consideration of the proposal:

- i. Reasons for making conflicting statement in the EIA report and undertaking submitted on 16/12/2021 with respect to operation of violating units shall be submitted.
- ii. Updated damage assessment report shall be submitted as the units under violation [DRI units were running till March 2021 and Induction Furnaces and CCM was being operated till Nov 2021] are under operation beyond 31/03/2020.
- iii. Chronology of events of units under violation since 2006 to till date shall be submitted along with its production figures.

53.12.30 The ADS was raised by the Ministry on 06/02/2022 as per the recommendations of EAC. The proponent submitted the reply to the ADS on 07/02/2022 as follows:

S. No.	Additional Detail Sought	Reply
i.	Reasons for making conflicting statement in the EIA report and undertaking submitted on 16/12/2021 with respect to operation of violating units shall be submitted.	The EIA report was prepared based on the information available related to operation of the violation units during EIA preparation period, based on the site visits and the same was provided in the final EIA Report. The undertaking submitted by Mr. R.C. Rungta, Director of Jharkhand Ispat Pvt. Ltd on 16/12/2021 was later development and the consultant was not aware when submitted the EIA to MoEF&CC on 03/06/2021.

S. No.	Additional Detail Sought	Reply
ii.	<p>Updated damage assessment report shall be submitted as the units under violation [DRI units were running till March 2021 and Induction Furnaces and CCM was being operated till Nov 2021] are under operation beyond 31/03/2020.</p>	<p>The damage assessment is recalculated based on the operational days of DRI units i.e. till March 2021 and Induction Furnaces and CCM till Nov 2021.</p> <p>The revised Damage assessment report is submitted by the project proponent.</p> <p>M/s Jharkhand Ispat Pvt Ltd. aims to compensate for whatever minimal damages identified due to the plant's construction and operation of the plant, by way of a dedicated Natural & Community resource augmentation plan with an earmarked budget and defined timeframe for implementation of the same. The total amount to be spent on Remediation plan and Natural Resource Augmentation Plan and Community Resource Augmentation Plan will be Rs. 660.22 Lakhs in place of earlier INR 562.23 lakhs. This plan will be implemented in three years after obtaining all necessary clearances.</p>
iii.	<p>Chronology of events of units under violation since 2006 to till date shall be submitted along with its production figures.</p>	<ul style="list-style-type: none"> • M/s Jharkhand Ispat Private Limited (JIPL) has established 2x100 TPD Sponge Iron Plant at Village Hesla, P.O. Argada, District Ramgarh, Jharkhand after obtaining CTE from Jharkhand State Pollution Control Board (JSPCB) on 31/07/2003. Environmental clearance for installation of the Plant, as per EIA Notification 1994, was not required as the project cost was less than 100 Crores. • JIPL installed another 2 x100 TPD Sponge Iron Plant and 240 TPD MS Billet Plant (2x12 Ton Induction Furnace with Billet caster) after obtained CTE from JSPCB on 06.11.2006 • JSPCB issued Consent to Operate (CTO) for operation of all installed Units till 30.09.2012. At the time of renewal of CTO for the period 01.10.2012 to 30.09.2013, JSPCB directed the proponent to stop operation of the 2x100 TPD Sponge Iron Plant and 240 TPD MS Billet Plant installed during 2006 till Environmental Clearance is obtained. JSPCB granted CTO for the period 01.10.2012 to 30.09.2013 only for operation of 2x100 TPD Sponge Iron Plant, installed during the year 2003. • The JIPL has obtained Stay Order on the Clause No. 27 of CTO dated 10/12/2012 as per the High court stay order [W.P.(C) No. 1125 of 2014] dated 24.03.2014. • JIPL submitted application on 11.01.2013 for grant of TOR for obtaining EC vide letter no. JIPL/1124/12-13 on for 2x100 TPD Sponge Iron Plant and 240 TPD MS Billet Plant which are under violation and 1x12 Ton Induction Furnace, 90,000 TPA Rolling Mill & 18 MW Power Plant under expansion. • Proposal was considered in 7th Reconstituted EAC Meeting of MoEF&CC on 04.04.2013 and as the proposal is for violation, MoEF&CC vide letter dated 12.06.2013 directed JIPL to submit compliance as per OM dated 12/12/2012. JIPL submitted the Board Resolution and Credible action to MoEF&CC on 04.01.2014. • The proposal was considered in 31st Reconstituted EAC meeting held on 08.01.2015 and again on 1st EAC Meeting held on 20.11.2015 and TOR for the project was recommended. MoEF&CC vide letter dated 08.01.2016 granted TOR. • Public Hearing for the project was held on 06.05.2017. FINAL EIA was submitted to MoEF&CC on 25.04.2018. EDS issued by MoEF&CC on 17.01.2019 mentioned; "The proposal is involved Violation for EIA Notification, 2006. Therefore, you are requested to make application under violation notification S.O. 804(E) dated 14th March, 2017 for dealing of violation proposals". The proposal was delisted from the Ministry's website on 07.06.2019.

S. No.	Additional Detail Sought	Reply
		<ul style="list-style-type: none"> • JIPL requested MoEF&CC to relist the project and transfer the same to the violation committee as ‘Lateral Proposal Entry’, as per MoEF&CC OM 09/09/2019. • The Expert Appraisal Committee (Violation) deliberated the project during its 36th meeting held on 21.09.2020 and recommended for grant of TOR. Terms of Reference for the proposed project was granted by MoEF&CC on 09.11.2020 vide F. No. J-11011/41/2013-IA-II(I). • M/s Jharkhand Ispat Pvt Ltd. has made an online EC application vide proposal no. IA/JH/IND/212892/2020 dated 03/06/2021 along with copy of EIA/EMP report and Form –2. • The Expert Appraisal Committee (Industry-1) deliberated the project during its 40th meeting held on 15th July, 2021 and raised some observations along with additional details. • ADS reply along with revised Form 2 and EIA report was submitted through an online EC application vide proposal no. IA/JH/IND/236898/2020 dated 03.11.2021. • The proposal was considered in 49th meeting of the Reconstituted EAC (Industry-I) held on 16th December, 2021. During the meeting, the EAC raised some observations along with additional details. • ADS reply for same was submitted on 15.01.2022 to MoEF&CC. Subsequently the proposal was reconsidered in 52nd meeting of Reconstituted Expert Appraisal Committee (Industry-1) held on 31st January, 2022. The additional details sought by EAC (Industry-1) submitted on 07.02.2022. <p>The production data for violation units is submitted by the project proponent.</p>

53.12.31 Based on the aforementioned reply, the proposal is considered in 53rd meeting of Reconstituted Expert Appraisal Committee (Industry-1) held on 10-11th February, 2022. The observations and recommendations of EAC is given as below:

Observations of the Committee

53.12.32 The Committee noted the following:

- i. The Committee noted that the EIA/EMP report for the expansion project is in compliance of the ToR issued by EAC (Violation) for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- ii. PP has carried out study for Remediation plan, Natural Resources Augmentation Plan and Community Resources Augmentation Plan for violating units and submitted remediation plan and budget of Rs. 6,60,22,500 is proposed. Committee also deliberated on same and found it satisfactorily.
- iii. 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 found it satisfactory.
- iv. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of all the existing EC and found it satisfactory except the management of dolochar generated by the DRI kilns which is partially complied as mentioned at para 53.12.20.
- v. The project proponent is required to deposit a bank guarantee equivalent to the

amount of remediation plan and Natural and Community Resource Augmentation Plan (INR 660.22 lakhs) to the SPCB prior to the grant of EC.

- vi. Project is located in a severely polluted area.
- vii. The legal action against the project proponent U/S 15 of the Environment (Protection) Act, 1986 has already been taken by the SPCB by filing a court case no. 255 of 2021 before the Hon'ble District Court of Ramgarh.

Recommendations of the Committee

53.12.33 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance as per S.O. 804 (E) dated 14/03/2017 subject to the stipulation of 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. Further, the project proponent is required to deposit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan (INR 660.22 lakhs) to the SPCB prior to the grant of EC.

A. Specific conditions

- i. Damage remediation measures @ cost of Rs. 660.22 lakhs shall be implemented as per the action plan submitted in the EIA report.
- ii. Project proponent shall be required to submit a bank guarantee for an amount of Rs.660.22 lakhs to the SPCB prior to the grant of EC. The plan shall be completed in three years whereas the bank guarantee shall be for five years. The bank guarantee shall be released by the SPCB after successful implementation of Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan.
- iii. PP shall meet the 2906 KLD water requirement from Damodar River after obtaining requisite permission from the concerned competent authority. Ground water abstraction for industrial purpose is not permitted.
- iv. Railway siding for the material transportation shall be provided by December, 2022 as committed.
- v. Green Belt shall be developed in 40 % of total land with tree density of 2500 trees per ha. (or 1000 trees per acre) all along the periphery of the project site. This shall include development of green belt with a width of 10-20 m within the project site towards Argarda village and Mahuwa Tand village.
- vi. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- vii. Effluent treatment plant shall be provided for 225 KLD effluent and treated water shall be reutilized in plant process.
- viii. Particulate matter emission from stacks shall be less than 30 mg/Nm³.
- ix. 100 % solid waste shall be utilized. Dumping is not permitted.
- x. Project proponent shall operate the violating unit "2x100 TPD DRI Kiln and 2x12 T Induction Furnace" only after obtaining Environmental Clearance and valid consent from state pollution control board as committed in the undertaking submitted to the Ministry.
- xi. 80-85 % hot charging for billets shall be done. Balance rolling shall be carried out through reheat furnace operating on LDO/LSHS.
- xii. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.

- xiii. All stock piles shall be constructed over impervious soil and garland drains with catch pits to trap run off material shall be constructed.

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 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 recognised 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 recognised 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. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- viii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- 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); 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 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. Adhere to 'Zero Liquid Discharge'.
- 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.

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. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- iv. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. 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.

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 of Factory Act.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Corporate Environment Responsibility

- 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, NO_x (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. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.

- xiv. 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.

53.13 Setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA Crude Steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant by **M/s. JSW Utkal Steel Limited** located at Polanga, BayanalaKandha, Gobindapur, Dhinkia, Nuagaon and Jatadhara villages, Ersama Tehsil, **Jagatsinghpur District, Odisha**. [Online Proposal No. IA/OR/IND/74396/2018; File No. J-11011/524/2017-IA.II (I)] – **Environment Clearance – regarding.**

53.13.1 M/s. JSW Utkal Steel Limited [JSW USL] has made an online application vide proposal No. IA/OR/IND/74396/2018 dated 7/01/2022 along with copy of common EIA report and Form – 2 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 & nonferrous), 4(b) Coke Oven Plants 1(d) thermal power plants and Cement plants 3(b) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at the Central Level.

53.13.2 The following experts from EAC – Infra 1 sector have been co-opted by the Industry 1 sector for appraising the common EIA report.

- i. Dr. Manoranjan Hota, Member, EAC – Infra 1
- ii. Dr. Sukumaran Jeyakrishnan, Member, EAC – Infra 1

Details submitted by Project proponent

53.13.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
ISP 13/08/2018	35 th EAC [Ind-1] 18 th September, 2018 & 4 th REAC [Ind-1] meeting held on 19 th February 2019	Terms of Reference	19/03/2019	18/03/2023

53.13.4 The project of M/s. JSW Utkal Steel Limited located in Polanga, BayanalaKandha, Gobindapur, Dhinkia, Nuagaon and Jatadhara villages, Ersama Tehsil, Jagatsinghpur District, Odisha is for setting up of a new Integrated Steel Plant for the Production of for production of 13.2 Million Tons Per Annum (MTPA) Crude Steel, 900 MW Captive power & 10 MTPA Cement grinding unit.

53.13.5 Environmental Site Settings:

SNo	Particulars	Details	Remarks
1.1	Total land for ISP	1125.284 ha [Private: 0.915 ha; Govt:- 1124.369 ha ; Agriculture: nil; and Grazing land: nil]	Land use: Land use: Total land is 1125.284 ha out of which 1069.581 ha land is diverted from forest and rest of 55.703 ha (non-forest land) is allotted by

SNo	Particulars	Details	Remarks																																																			
			IDCO.																																																			
1.2	Total land for captive jetty	68.83 ha	Diverted Forest Land: 14.40 Ha and Barren Coastal Non Forest land: 54.43 Ha																																																			
	Total [1.1 + 1.2]	1194.114 ha																																																				
2.	Findings of authenticated CRZ map	The proposed Captive Jetty and related activities is partly located with the CRZ categories such as CRZ IA [De-notified RD-MoEF Order No. 8-63/2007-FC dt. 04.05.2011], CRZ IB [Intertidal Zone], CRZ III [NDZ], CRZ IVA [Sea] and CRZ IVB [River]. The activities proposed are permissible within the CRZ area.	The CRZ map is prepared in accordance to the CRZ Notification, 2011 and are in harmony with the approved CZMP of Sheet No. F45 U 12/NW [Map Np. 42] of the State of Odisha.																																																			
3.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014 with respect to ISP project	Total land is 1125.284 ha out of which 1069.581 ha land is diverted from forest and rest of 55.703 ha (non-forest land) is allotted by IDCO.																																																				
4.	Existence of habitation & involvement of R&R, if any.	Project Site: Dhinkia [Jogisahi], Dhinkia [Patana], Gobindpur, Nuagoan&Polang. There are around 142 Project Affected Families (PAF) who would be affected due to the proposed Greenfield project. Study Area: <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance [mtr]</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Dhinkia-67</td> <td>200-300</td> <td>N-E</td> </tr> <tr> <td>Gobindpur-49</td> <td>150-200</td> <td>N</td> </tr> <tr> <td>Nuagoan-02</td> <td>20-50</td> <td>W</td> </tr> <tr> <td>Polang-96</td> <td>100-150</td> <td>W</td> </tr> </tbody> </table>	Habitation	Distance [mtr]	Direction	Dhinkia-67	200-300	N-E	Gobindpur-49	150-200	N	Nuagoan-02	20-50	W	Polang-96	100-150	W	Status of R&R: Rehabilitation and Resettlement (R&R) shall be carried out as per Odisha R&R Plan.																																				
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16	20° 12' 52"N	86° 32' 23"E																																																				

SNo	Particulars	Details	Remarks
6.	Elevation of the project site	13 m (maximum) above MSL The land is low lying and needs to be raised to prevent flooding during cyclones. Maximum storm surge level observed historically was +5.5 m CD. The land is required to be raised to + 6.5 m CD to avoid flooding. Land would be raised using dredged sand from navigational channel of jetties. Estimated requirement of dredged sand is about 27 million m ³ .	
7.	Involvement of Forest land if any	Transfer of Stage II FC granted vide letter no. F.No. 8-63/2007-FC dated 16/10/2019. Area of the forest land involve: 1083.691 ha including Captive Jetty	
8.	Water body exists within the project site as well as study area	Project site: Nil Study Area: Mahanadi – 8.2 km NE Jatadhar Mohan river – Adjacent Mahanganadi – 0.4 km N Bay of Bengal - 0.5 km SE	Distance of nearest flood level is 50 m (Jatadhar Mohan river)
9.	Existence of ESZ/ ESA/ National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve etc. if any within the study area	Nil	-
10.	Existence of sand dunes, mangroves, mud flats	Existence of Sand Dunes in project site: <u>SAND DUNE 1</u> A. 20 ⁰ 13' 41"N , 86 ^D 35' 30"E B. 20 ⁰ 13' 44"N , 86 ⁰ 35' 36"E C. 20 ⁰ 13' 45"N , 86 ⁰ 35' 35"E D. 20 ⁰ 13' 45"N , 86 ⁰ 35' 32"E <u>SAND DUNE 2</u> E. 20 ⁰ 13' 22"N , 86 ⁰ 34' 42"E F. 20 ⁰ 13' 26"N , 86 ⁰ 35' 02"E G. 20 ⁰ 13' 28"N , 86 ⁰ 35' 07"E H. 20 ⁰ 13' 24"N , 86 ⁰ 34' 41"E	
11.	Dredging	Quantum of dredged material and its utilization: About 30 million m ³ of bed material would be dredged for creation of the navigation channel and jetty basin. About 27 million m ³ dredged material shall be used for land reclamation/grade improvement of the ISP land as well for protection of the shoreline erosion in the construction period, when the	

SNo	Particulars	Details	Remarks
		breakwater construction would prevent littoral drift and the remaining would be disposed at the offshore dumping ground identified in the mathematical modelling report.	
12	Interlinked projects	i. Captive jetty handling capacity 52 MTPA (Proposal no: IA/OR/MIS/74417/2018) for which ToR was granted vide letter dated 09/10/2018. The captive jetty project also granted CRZ recommendation by the State CZMA (OCZMA) vide letter no. OCZMA/56/202041/OCZMA dated 01.02.2021. EC/CRZ clearance for the captive jetty project is yet to be accorded by the Ministry. ii. Iron ore grinding and desliming plant with slurry transportation for 30 MTPA iron ore concentrate had been submitted vide proposal no. IA/OR/MIN/179208/2020 for which ToR was granted vide letter dated 29/12/2020.	

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

Sl. No.	Name	Configuration	Production, MTPA
1	Slurry dewatering system	Thickener, Filtration (pressure filter) with water recovery system	30.0
2	Coke oven	8 x 62 ovens block, 6.25 m tall stamp charged, CDQ	6.0
3	Sinter plant	1 x 500 m ²	5.775
4	Pellet plant	4 x 8.0 MTPA Grinding Unit - 180 TPH	32.0
5	DRI	1 x 1.2 MTPA	1.2
6	Blast furnace	3 x 5,350 cum	13.5
7	Steelmaking Shop (SMS)	SMS-1 3 x 350 t BOF 3 x 350 t LF 2 x 350 t RH SMS-2 2 x 180 t BOF 2 x 180 t LF 1 X 180 t RH	13.49
8	Caster Shop	Slab Caster - 3 x 2 strand Billet Caster - 1 x 8 strand Billet/Bloom Caster - 1 x 6 strand	13.2
9	Flat Product Mills	Plate Mill - 1 x 1.5 MTPA Hot Strip Mill - 2 x 5.5 MTPA Tinsplate Coil - 2 X 0.25 MTPA Silicon Steel - 2 X 0.25 MTPA Cold Rolling Mill - 2 x 2.3 MTPA - Pickling line tandem cold mill(PLTCM)-2x2.3 MTPA - Continuous Annealing Line (CAL) - 2x1.0 MTPA - Continuous Galvanizing Line CGL - 4x0.5 MTPA - Color coating Line CCL - 4x0.25 MTPA	9.74
10	Long Product Mill	Rebar mill - 1 x 1.2 MTPA Wire Rod Mill - 1 x 0.6 MTPA Medium Section Mill - 1.0 MTPA	2.8

Sl. No.	Name	Configuration	Production, MTPA
11	Calcining Plant	6 x 600 TPD Lime Calcining Plant 1 x 600 TPD Dolo Calcining Plant	0.97 0.13
12	Cement Plant	Grinding, mixing of slag, clinker & fly ash	10.0
13	Captive Power Plant	By-product gas and coal based 3 x 300 MW	900 MW
14	Air Separation Plant	6 x 2,100 TPD	12,600 TPD
15	Tar processing plant	Distillation units for producing Carbon Black Oil, Anthracene Oil, Naphthalene, Wash Oil and Pitch	300,000 TPA
16	Benzol Refining Plant	Distillation units for producing BTX and other value added products	100,000 TPA
17	Incinerator	1 unit with gas fired	10 TPD

53.13.7 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, tons/ annum	Source	Distance from site (Kms)	Mode of transport
1	Coking Coal and Pet Coke	7,831,900	International market Potential source- Mozambique, Australia and Canada	0 (Captive jetties)	Sea
2	Anthracite	192,000	International market Potential source- South Africa, Vietnam and Indonesia	0 (Captive jetties)	Sea
3	Iron ore (Lump)	1,187,900	Procured from the Joda-Barbil and Koira mines region, Odisha	330	Rail (50%)/ Road (50%)
4	Iron ore concentrate	30,000,000	Captive Iron ore grinding & desliming plant, Joda/Nuagaon	330	Slurry Pipeline from Joda/ Nuagaon Plant
5	Iron ore fines	4,695,300	Procured from the Joda-Barbil and Koira mines region, Odisha	330	Rail
6	PCI coal	2,700,000	International market Potential source- Australia, South Africa and Indonesia	0 (Captive jetties)	Sea
7	Limestone	4,934,500	BF grade - Purchased from mines in Bagalkot area, Karnataka /Central India (Jukehi-	1600	Sea (50%)/ Rail (40%)/ Road (10%)

Sl No	Raw Material	Quantity, tons/ annum	Source	Distance from site (Kms)	Mode of transport
			Katni-Niwar area) SMS grade - Imported from Middle-East Countries (UAE & Oman)		
8	Dolomite	2,350,100	International market & Purchases from mines located in Sundargarh district, Odisha & Katni-Bilaspur region, Central India	350	Sea (15%)/ Rail (70%)/ Road (15%)
9	Steam coal	2,700,000	Procured from Mahanadi Coalfields Limited (MCL) and South Eastern Coalfields Limited (SECL)	450	Rail
10	Bentonite	320,000	International market – Russia etc.	0 (Captive jetties)	Sea
11	Quartzite	270,000	International market – Brazil, Domestic – Rajasthan	1900	Sea (10%)/ Rail (50%)/ Road (40%)
12	Clinker	5,116,000	International market – Vietnam, Domestic – Gujarat	0 (Captive jetties)	Sea
13	Gypsum	232,000	Domestic – Rajasthan, Gujarat	1900	Rail 50%)/ Road (50%)

53.13.8 The water requirement for the ISP & Jetty project is estimated as 248,880 m³ /day, out of which 223,200 m³ /day of fresh water requirement will be obtained from the Upstream of Jobra barrage of Mahanadi River and the remaining requirement of 25,680 m³ /day will be met from the recycling of treated effluent. In addition to the above, sea water to the extent of 130,000 m³/hr will be used in CPP for cooling. The permission for drawl of surface water [99.80 cusec ~ 10174 m³/hr from Mahanadi River] for the projects is obtained from Dept. of Water Resources, Government of Odisha vide Lr. No. 20873/WR/Irr.II-WRC-44/19 dated 19/09/2019.

53.13.9 The power requirement for the proposed project is estimated as 1230 MW, out of which 900 MW from coal and gas fired CPP & 221 MW from CDQ & TRT and rest will be balanced Grid/JSW Energy.

53.13.10 Baseline Environmental Studies:

Period	Primary baseline data during the Apr'19 - Jun'19 period for ISP and three seasons data from Jan'18 to Apr'18, Nov'18 - Feb'19 and Apr'19 - Jun'19 for captive jetties.
AAQ parameters at 8 Locations	PM _{2.5} = 23.5 to 52.8 µg/m ³ PM ₁₀ = 46.2 to 90.2 µg/m ³ SO ₂ = 4 to 9.5 µg/m ³ NO _x = 7.8 to 45 µg/m ³

	<p>CO = 0.1 to 0.68 mg/m³ O₃ = <10 µg/m³ NH₃ = < 4.18 µg/m³ Pb = < 0.01 µg/m³ C₆H₆ = < 0.74 µg/m³ As = < 0.01 ng/m³ Ni = < 0.02 ng/m³ BaP = < 0.36 ng/m³</p>																				
AAQ modelling (Incremental Level)	<p>PM = 21.5 µg/m³ SO₂ = 16.4 µg/m³ NO_x = 32.8 µg/m³</p>																				
Groundwater quality at 8 locations	<p>pH: 6.5 to 7.1, Total Hardness: 835.8 to 2760 mg/l, Chlorides: 54.6 to 853.1 mg/l, Fluoride: 0.1 to 0.3 mg/l. Heavy metals are within the limits.</p>																				
Surface water quality at 8 locations	<p>pH: 6.7 to 8.1; DO: 3.25 to 5.5 mg/l BOD: from 5.0 to 57.5.mg/l. COD: from 39.0 to 288.8 mg/l</p>																				
Noise levels Leq (Day and Night)	<p>52.8 to 75 Leq dB(A) for the day time and 42.2 to 67.2 Leq dB(A) for the Night time</p>																				
Traffic assessment study findings	<p>Traffic study has been conducted at near Atharabanki after merging of SH 12 & NH 53 in the outskirts of Paradeep which is approximately 9 km from the plant site. Transportation of raw material, fuel & finished product will be done 9 % by road. Existing PCU is 1604 PCU/hr on NH53 and existing level of service [LOS] is</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Vol 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>NH53</td> <td>1604</td> <td>3600</td> <td>0.44</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 1604(Existing) + 191(Additional) PCU/hr and level of service (LOS) will be</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Vol 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>NH53</td> <td>1795</td> <td>3600</td> <td>0.5</td> <td>A</td> </tr> </tbody> </table> <p>*Note: Capacity as per IRC:106-1990 Guide line for Capacity for roads. Conclusion: The level of service will be A after including additional traffic due to proposed project.</p>	Road	V (Vol in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	NH53	1604	3600	0.44	A	Road	V (Vol in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	NH53	1795	3600	0.5	A
Road	V (Vol in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS																	
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Road	V (Vol in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS																	
NH53	1795	3600	0.5	A																	
Flora and fauna	<p>There are no Schedule I species in the study area.</p>																				

<p>Coastal Environment parameters</p>	<p>Physico-chemical characteristics of marine water Temperature- 19.0 to 24.0 °C during winter 26.5 to 30.0 °C during summer 27.0 to 29.0 °C during post-monsoon Salinity (PSU)- 21.6-26.7 psu during winter 33.2-34.1 psu during summer 1.1-28.2 during post-monsoon BOD (mg/l)- 1.9-2.6 mg/l during winter 3.5-5.0 during summer 1.8-17.7 during post-monsoon season PO₄³⁻P (µmol/l) - 0.03-0.7 µmol/l during winter 0.1-0.5 µmol/l during summer 0.4-3.2 µmol/l during post-monsoon NO₃⁻-N(µmol/l)- 0.2 to 0.9 µmol/l during winter 0.2 to 1.0 µmol/l during summer 3.9 to 7.3 µmol/l during post-monsoon</p> <p>Trace metal concentration in marine water Cr (ND-6.7µg/l, Zn (0.8-23.8 µg/l), Cu (1.2-14.8µg/l) and Hg (ND-0.02µg/l)</p> <p>Texture of Sediment Intertidal sediment is mostly sandy with maximum content of sand (91.5-98.8 %) followed by silt (0.8-5.3 %) and clay (0.4-3.2%).</p> <p>Heavy metals in Sediments The analysis of the heavy metals in sediments indicated lithogenic characteristic of the region and varied according to the texture of the sediment. There is no contamination of the sediment with respect to the heavy metals.</p> <p>Biological Characteristics Microbial counts (TVC) in the waters collected ranged from 10x10² to 700x10² in winter, 50x10² to 500x10² in summer, and 10x10² to 180x10² in post-monsoon season. The microbial counts (TVC) in the sediments ranged from 30x10⁴ to 140x10⁴ in winter, 50x10⁴ to 250x10⁴ in summer, and 10x10⁴ to 300x10⁴ in post-monsoon season.</p> <p>Phytoplankton cell population varied widely from 8.8 to 347.6 x 10³ cells/l in winter, 20.6x10³ to 950.4x10³ cells/l in summer, and 6.0x10³ to 55.0x10³ cells/l in post-monsoon season. Zooplankton biomass ranged from 0.1 ml/100m³ to 26.8 ml/100m³ (av. 0.88 ml/100m³ to 8.86 ml/100m³). Zooplankton</p>
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	<p>density ranged from 1.4 no.x10³/100m³ to 75.1 no.x10³/100m³ (av. 4.0 no.x10³/100m³ to 19.7 no.x10³/100m³) and total groups ranged from 6 no. to 22 no. (av. 12 no. to 16.2 no.).</p> <p>Macrobenthic standing stock in term of biomass and population in the subtidal region ranged from 0.003 to 44.19 g/m² (av. 0.37 g/m² 7.72 g/m²) and 25 to 6900 no./m² (av. 362 no./m² to 2494 no./m²)</p> <p>Meiobenthic standing stock in term of biomass and population ranged from 0.02 to 3.08 g/m² (av. 0.75 to 0.83 g/m²) and 64 to 2031 no.x10³m² (av. 205 to 472 no.x10³m²) respectively.</p>
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53.13.11 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/Remarks
1.	BF Slag	Blast Furnace	4050000	Granulation in Slag granulation plant and used in cement manufacturing in captive cement plant. A small quantity would be used internally in the ISP
2.	Steelmaking Slag	SMS	2095000	Recovery of metallics & non-metallics for in-plant use. Balance utilized as railway ballast, in construction aggregate, after processing.
3.	Flue Dusts	Blast Furnace, SMS, Sinter Plant, Pellet Plant etc.	300000	Reuse in Agglomeration
4.	Mill Scales/ Sludge	Mills	150000	Reuse in agglomeration
5.	Fly Ash	Coal based CPP	940000	Used to produce cement in the captive cement plant
6.	Bottom Ash	Coal based CPP	240000	Would be stored in ash pond and used for road making
7.	Chrome Sludge	CRM	80	Disposed in secured landfill in TSDF
8.	Decanter tank & tar storage tank sludge	Coke Oven By product plant	800	Reused in coke oven
9.	Used & Waste oil	Mills and other units	1500	old to Recycled recyclers
10.	Zinc Dross	Galvanising Unit	30000	old to Recycled recyclers

53.13.12 Public Consultation:

Details of advertisement for ISP & Jetties	19/11/2019
Date of public consultation for ISP & Jetties	20/12/2019
Venue	Separately carried out for ISP and Jetty projects. ISP in the forenoon and Captive Jetty in the Late afternoon to the evening. Badadanda, in front of Jagannath Temple at Gadakujang village
Presiding Officer	Sri Sangram Keshari Mohapatra, Collector & District Magistrate, Jagatsinghpur
Major issues raised for the Projects	<ul style="list-style-type: none"> • Air pollution (dust pollution) • Ground water contamination • Direct and indirect employment • 200 bedded Super Specialty Hospital in the local area • upgradation of existing govt. hospitals in three Gram Panchayats • upgradation of existing educational institutions • Establishment of technical training institute • vocational training centers • skill development centers • safe drinking water facilities in every village • development of sports infrastructure in the villages • SHGs are to be empowered with skill development and better management of financial implementation and training and establishment of BPO centers in the villages. • Construction or upgradation of road and drainage system

Action Plan as per MoEF & CC O. M. dated 30/09/2020: for ISP

Description- Physical Activity and Action Plan [Name of the Activity & Physical Targets]	Year 1	Year 2	Year 3	Total (in Rs. Lakhs)
Area Development				
Development of village roads	- Dhinkia & Nuagoan 2km in each village	Gobindpur & Raghunathpur 2km in each village.	Garhkujang-3Km, Noliasahi-2Km & Abhay-chandapur- 3km	2400
Development of market infrastructure with water & electricity	Garhkujang	Dhinkia	Bayanalkanda & Raghunathpur	125
Development of public community center and recreation center	Construction of community hall & procurement of TT board & carrom board in Nuagoan	Construction of community hall & procurement of TT board & carrom board in Dhinkia	Construction of community hall & procurement of TT board & carrom board in Gadhrkujang	200

Description- Physical Activity and Action Plan [Name of the Activity & Physical Targets]	Year 1	Year 2		Year 3	Total (in Rs. Lakhs)
Development of playground and club house with TT, Carrom board, football& cricket accessories in Garhkujang, Gobindpur & Nuagoan	Development of land and fencing at 2 villages. Commencement of club house construction at 2 Villages	Development of land and fencing at 2 villages. Commencement of club house construction at 1 Villages	Completion of club house construction & procurement of all accessories		1500
Establishment of library infrastructure facilities with 500 books, 10 bookshelves and 4 numbers of computers with internet facilities	Dhinkia & Pankapal	Balitutha & Unchanuagan	Taladanda, Bhitrandhari,		200
Medical					
Infrastructure strengthening of govt. hospital in 4 Gram panchayats as per requirement (The upgradation scheme will be finalized with district administration and the approved scheme will be communicated to MoEFCC during 6 monthly compliance)	Balitutha	Dhinkia	Jhimani Kujang		200
Establishment of 200 bed hospital in consultation with local authorities	Identification of site and tendering & placement of order for construction	Construction of Hospital building	Development of pathological lab and Procurement of instrument, beds etc		2000
Upgradation of health care facilities in peripheral villages	Portable X-ray in Balitutha and Dhinkia	Portable ECG and USG in Balitutha and Dhinkia	Dental chairs in Balitutha and Dhinkia		200
Education					
Establishment of public School at Garhkunjang	Identification of site, Tendering & Placement of Order for Construction	Construction of School Bldg.	Procurement of Chair, Tables, Computers (20 Nos), Books etc.		500
Strengthening of library & up gradation of existing village schools by providing Chair, table & books & 4 Nos of computers with internet to each library	Gobinda Chandra High School Noilasahi UP school, Noilasahi Houra Chandi Bidyaptha Govt High School & Sri Aurobindo Shiksyas Sadana, Taldana	Kapteswar Bidyapitha & Sri Aurobindo Shiksyas Sadana. Janata High School, Kothi AK Bidyapitha UP School Khuranta	Pankapal High School, Balitutha Panchayat High School & Janata High School. Baladevjiew UP School, Sahada.		180

Description- Physical Activity and Action Plan [Name of the Activity & Physical Targets]	Year 1	Year 2		Year 3	Total (in Rs. Lakhs)
Drinking water					
Provision of drinking water through pipelines & installation of portable RO in peripheral villages or contribution to government fund for the same	Naliasahi & Garhkujang	Dhinkia & Raghunath-pur & Nuagoan		Abhaychandra-pur, & Bayanalkanda & Gobindpur Balitutha, Unchanua-gan, Chatua & Raghunathpur	2000
Livelihood					
Provision of mechanized boat to fishermen community of Noliasahi village for fishing in the near shore area	5 Nos	3 Nos		2 Nos	300
Construction of fishing jetty	Identification of site & statutory clearance	Start of construction		Continuation of construction and Commissioning of jetty	800
Infrastructure					
Construction/development of road in peripheral villages	2 km in Dhinkia	4 km in Dhinkia		4 km in Nuagoan. 2 km in Noliasahi and 2 km in Bayanala Kandha	800
Solar light					
Solar LED street lighting in villages (Dhinkia, Nuagoan, Gobindpur, Raghunathpur, Garhkujang, Noliasahi, Pankapal, Bayanalkanda, Raghunathpur, Abhaychandapur & Kujang)	200 Nos. covering Dhinkia, Nuagoan, Gobindpur, Raghunathpur	200 Nos covering Garhkujang, Noliasahi, Pankapal, Bayanal-kanda		200 covering Raghunathpur, Abhaychandapur & Kujang	200
Swachh Bharat					
Distribution of dust bin in the surrounding villages & Mechanised vehicle for garbage lifting and transportation	1000 colored bins in Dhinkia, Nuagoan and Gobindpur	4 Nos of mechanized vehicle		500 Coloured bins in BayanalaKandha, Gadkujang, Abhaychandapur	800
Environment					
Construction of stone pitching in sea beach	Investigation and ordering	1.0 km		1.0 km	1000
Carry out urban plantation and afforestation programs in 11 villages	20000 trees	20000 trees		60000 trees	500
Lord Jagannath Temple at Gadakunja will be provided with electrification and maint.	Construction	Construction & handing over			
Development of Sports Infrastructure in peripheral	3 Villages	3 Villages		3 Villages	

Description- Physical Activity and Action Plan [Name of the Activity & Physical Targets]	Year 1	Year 2	Year 3	Total (in Rs. Lakhs)
Villages & arrange special training for talented youth				
Vocational training				
Skill development training on welding, electrician course, machinery, carpentry etc. and livelihood program	500 persons	500 persons	1000 persons	2000
Skill development for women empowerment on nursing, tailoring, beautician course, animal husbandry at village	Establishment of Skill development center at Kujang	1000 women	2000 women	1000
Providing training to SHG members	200 Persons	200 persons	400 persons	400
Vocational training				
Establishment of technical training institute for skill development. Location will be decided in discussion with Local administration	Identification of land & tendering	Construction of building	Completion of construction & procurement of tools & tackles	2000
Fund contribution towards establishment of BPOs in and provision of employment aid in textile units	BPO-100	Tailoring-100	100	300
Total				19,605

53.13.13 The capital cost of the ISP & Captive Jetties are Rs. 65,000 Crores and Rs. 2100 Crores and the capital cost for environmental protection measures for ISP. The annual recurring cost towards the environmental protection measures for the Project area proposed as Rs. 200 Crores. The employment generation from the proposed ISP project is 72,000 (Direct-15000, Indirect-57000). The details of cost for environmental protection measures for ISP is as follows:

Sl. No.	Description of Item	Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost
1.	Air Pollution Control Measure/Noise Management	1650	115
2.	Water Pollution Control	775	54
3.	Env. Monitoring Management & Laboratory Solid Waste management	90	6.5
4.	Greenbelt Development	25	2
5.	Addressal of Public Consultation concerns	196	14
6.	Solid Waste Management	120	8.5

- 53.13.14 Proposed greenbelt will be developed in 371.34 ha which is about 33% of the total project area. A 10-20 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 930,000 saplings will be planted and nurtured in 371.34 Ha in 5 years.
- 53.13.15 PP has mentioned that there is no violation under EIA, 2006 or court case or any show notice pending related to the proposed project.
- 53.13.16 Name of the EIA consultant **ISP:** M/s M. N. Dastur& Co. (P)Ltd. [C. No. NABET/EIA/1821/RA0131 extended till 29/03/2022] **Captive Jetties:** WAPCOS Ltd. [C. No. NABET/EIA/2124/RA0222 extended till 09/04/2024] **Common EIA Report:** M/s M. N. Dastur& Co. (P)Ltd. [C. No. NABET/EIA/1821/RA0131 extended till 29/03/2022]
- 53.13.17 M/s. JSW Utkal Steel Limited has earlier made application vide proposal no. IA/OR/IND/74396/2018 dated 04/03/2021. The proposal was considered by the EAC (Industry 1) in its 32nd meeting of the Re-constituted EAC (Industry-I) held on 15th -17th March, 2021.
- 53.13.18 The project proponent vide email dated 16/03/2021 expressed their inability to participate in the EAC meeting and requested to return their proposal in its present form to “revisit and correct the uploaded Form-2 for incorporating the Integrated [Common] EIA Report for ISP and Jetty(ies) Project at Paradeep, Odisha”. In view of the request made by the project proponent, the Committee accepted the request of the project proponent to withdraw the proposal in its present form
- 53.13.19 M/s. JSW Utkal Steel Limited had earlier made an application vide proposal no. IA/OR/IND/74396/2018 dated 05/05/2021. The proposal was considered by the EAC (Industry 1) in its 36th Meeting held on 18-19th May, 2021. The EAC recommended to return the proposal in its present form to address the shortcomings.
- 53.13.20 Besides above, the EAC has gone through the following records during 18-19th May, 2021.
- A. Public representation**
It was apprised to the EAC that Ministry was in receipt of a representation on 31/01/2020 and 07/02/2020 alleging that several shortcomings in the public hearing held for the project on 29/12/2019 inter-alia including no common EIA report has been prepared to covering each of the sectoral component in a comprehensive manner.
- B. Report of District Magistrate and Odisha Pollution Control Board (OPCB) on public representation**
As per the District Magistrate report dated 29/05/2020, the public hearing for the instant project was conducted by the District Administration on 29/12/2019 as per the guidelines laid down in the EIA Notification, 2006. Further with respect to the common EIA report, it has been responded by OPCB stating that JSW submitted individual EIA reports for both the projects separately along with an integrated EIA report. All the three reports were distributed to the concern offices as per the guidelines of the EIA Notification, 2006 and was uploaded on to the OSPCB website.

53.13.21 M/s. JSW Utkal Steel Limited had again made an online application vide proposal no. IA/OR/IND/74396/2018 dated 02/09/2021. Subsequently, the proposal was considered by REAC in its 44th meeting held on 13 – 14th September, 2021. The EAC recommended to return the proposal in its present form to address the shortcomings. With respect to the public representations listed at point no. 53.13.22 below, the Committee recommended to seek the views of Odisha Pollution Control Board and the project proponent.

53.13.22 Besides above, the EAC has gone through the public representation during 13-14th September, 2021.

Public representations:

S No	Date	Issues raised
1	10/09/2021	<ul style="list-style-type: none"> • Re-conduct of public hearing as per the procedure established by the EIA notification, 2006 after making relevant information available to the villagers in their local language. • Prior consent from Gram Sabha. • Lack of integrated EIA report • Incomplete public hearing notices
2	11/09/2021	<ul style="list-style-type: none"> • Incomplete and unlawful public hearing held on 20/12/2019. • EIA Report has not justified the environmental and social impacts.
3	12/09/2021	<ul style="list-style-type: none"> • Environmental impacts due to the project. • Expressed concerns in the reply provided by the project proponent on the observations made by the Expert Appraisal Committee (Industry-I) in the meeting held on 19th May, 2021.
4	13/09/2021	<ul style="list-style-type: none"> • Written representations received in favour of project during Public Consultations are fabricated. • Livelihood of the locals likely to be affected.

53.13.23 M/s. JSW Utkal Steel Limited had again made an online application vide proposal no. IA/OR/IND/74396/2018 dated 07/01/2022. Subsequently, the proposal was considered in 52nd REAC (Industry-1) held on 27th, 28th and 31st January, 2022.

53.13.24 It was appraised to the EAC during meeting, that a report was submitted by Odisha Pollution Control Board on 11/10/2021 on public representations and response of PP on 28/09/2021 on public representation given as below:

Report of Odisha Pollution Control Board on public representation and response of Project proponent:

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
1	Representation dated 10/09/2021		
i	Quash the public hearings conducted on 20th December, 2019 and require them to be re-conducted as per the	Comment Public Hearing (PH) was organized by the OSPCB with the support of District Magistrate for two projects of JSW USL viz ISP and Captive Jetty at	The PH was organized by the regional office of the Odisha State Pollution Control Board as prescribed in the EIA notification of 2006 and amendments

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
	<p>procedure established by the EIA notification, 2006 after making relevant information available to the villagers in their local language.</p>	<p>Gadkujang on 20.12.2019. The public hearing was chaired by District Collector, Jagatsinghpur. The PH was conducted as per the procedure laid down in EIA notification 2006 and amendments thereafter. The Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English & local language, Odia). The summary reports in English and local language Odia have been uploaded in the website of OSPCB and were made available at GP offices, Collector's office, BDO office, DIC office and RO Paradeep for the inspection by the general public. The date and venue of the public hearing was published in one national daily in English i.e. "The Times of India" and one local daily in Odia i.e. "Dharitri" 30 days prior to the date of Public Hearing. The Board and District Administration had made arrangement of wide publicity of the report as per provisions of EIA notification 2006 and amendment thereafter. The project proponent deliberated about the both projects in details before the public and the questions raised by the public have been answered during the PH. The written representations (1082) have</p>	<p>thereof. It was cherished by the District Collector. The Common EIA report has been prepared and submitted to OSPCB as per the Office Memorandum dated 24.12.2010. All the relevant information was furnished in the summary report of the EIA in English and vernacular language (Odia) for better understanding of the project and its environmental impacts among the general public. The documents were made available at the respective GP Offices, Collector Office, BDO for wide publicity of the same as per ETA Notification. Besides the summary report in local language and English were uploaded in the OSPCB website. The date of public hearing was published in the daily newspapers in Odia and English.</p>

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
		<p>been received by the Board prior to and after the PH, which have been communicated to both MoEF&CC, Govt. of India and the project proponent. The entire public hearing proceedings has been video graphed and submitted to MoEF&CC, Govt. of India</p>	
ii	<p>Ensure that free, prior and informed consent is acquired from the affected villagers for the aforesaid project and give due consideration to both recent and previous Gram Sabha resolutions rejecting diversion of forestland, as per FRA, 2006.</p>	<p>There is no provision in EIA Notification, 2006 and amendment thereafter that prior consent from Gram Sabha is required for seeking prior Environmental Clearance. Hence, it is not acceptable.</p>	<p>The requirement of prior consent from Gram Sabha is as per the FC Act and not for seeking prior Environmental Clearance as per EIA Notification 2006 and subsequent amendments. Further, it may be noted that Jagatsinghpur district does not fall under scheduled area.</p>
iii	<p>Urgently ensure, that individual and community forest rights claims of residents of Nuagaon, Dthinkia and Gobindpur villages on land taken over for the POSCO project are being processed instead of transferring the land to JSW Utkal Steel</p>	<p>No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter.</p>	<p>The Forest Clearance was received by the earlier Project Proponent which has been transferred to JSW Utkal Steel Limited</p>
iv	<p>Initiate immediate measures to restore the massive environmental damages already occurred, e.g. by replanting trees.</p>	<p>No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. However, greenbelt development plan as proposed in the EIA report is to be implemented by the</p>	<p>The compensatory afforestation as required under the FC Act has already being initiated by the Forest Department. JSW USL will be planting nearly 1 Million trees as a part of Greenbelt/Greenery Development Program within the project area.</p>

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		Project Proponent with time bound action plan.	In addition to the above, JSW USL will be funding for enhancement of greenery in the adjoining area for about 169 Ha. Therefore, there will be net positive improvement in environmental condition in the area.
v	Ensure that all of India's commitments under the Convention on Biological Diversity, the Paris Agreement on climate change, and the 2030 Sustainable Development Goals (SDGS), are prioritized and implemented.	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. However, commitment shall be taken from the Project Proponent in this regard.	<p>JSW USL is committed to align with the objective set forth by Government of India towards its international commitments related to Biodiversity, Climate Change com and Sustainable Development Goals. Towards this the following actions have been proposed:</p> <p>Biodiversity: Plantation of local diverse species as a part of greenery development in the area as stated above;</p> <p>Climate Change: JSW USL will be implementing the state of the art technologies which will be highly productive, energy efficient and environment friendly with reduced carbon footprints;</p> <p>Sustainable Development Goals: The Project has envisaged several schemes for promoting inclusive growth in the surrounding area i.e. employment, infrastructure development, drinking water security, rural electrification and</p>

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
			enhance entrepreneurship through supportive ancillary units.
2	Representation dated 11/09/2021		
i	Integrated EIA was not made available prior public hearing.	Board after receipt of Common EIA Report along with EIA reports of ISP & Captive Jetties, public hearing was conducted by the Board.	The report was prepared by NABET accredited consultant (M.N. Dastur & Company Private Ltd. Kolkata) The baseline environmental data have been collected by NABL & MoEF&CC recognized/accredited laboratory. So the question of false, misleading and Incomplete data does not arise.
ii	The report prepared based on incomplete, false and misleading data.	So far as grant of environmental clearance is concerned, the role of this Board is limited only to facilitate conduct of public hearing under the supervision of the district Collector or/his representative not below the rank of ADM and forward the proceedings to the concerned regulatory authority for consideration of environmental clearance. For this case, the regulatory authority is MoEF&CC, Govt. of India to grant environmental clearance on recommendation of Expert Appraisal Committee (EAC). The Board is not empowered to review the EIA report and the data reported in the report.	The Individual plant wise water requirement and the total plant water balance diagram has been made and is available in the integrated/individual reports. The requirement of water as indicated in the report is in line with the water requirement study for the steel plant as prepared by MECON on behalf of Govt. of Odisha.
iii	Assessment for water requirement was missing.	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA	The Paradeep Port is established under the Major Port Act under the Central Government, and the

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		Notification, 2006 and amendment thereafter. However, assessment of Water requirement is available in the EIA report for the ISP.	Present Captive Jetty is under the administrative control of the State of Odisha. Hence, NOC from Paradeep Port is not necessary. Based on our request to the Ministry through letter dated 15.03.2021, EAC has recommended to submit an undertaking to the Ministry stating that "the activities proposed for the Captive Jetty(ies) facility shall not overlap the Master Plan the Paraeep Port"
iv	NoC from Paradeep Port	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter.	Common EIA Report for 1SP & Captive Jetties was prepared by the accredited consultants and submitted to OSPCB for public hearing per the Terms of Reference mandated by respective EACS. During the appraisal by the committee of these projects, additional clarification was sort which was submitted by JSW USL to the EAC of MoEF&CC
3	Representation dated 12/09/2021		
i	Baseline Environmental quality data not in line with Paradeep Industrial Area (PIA)	No comments. So far as grant of environmental clearance is concerned, the role of this Board is limited only to facilitate conduct of public hearing under the supervision of the district Collector or / his representative not below the rank of ADM and forward the proceedings to the concerned regulatory authority for consideration of environmental clearance. For this case, the regulatory authority is MoEF&CC,	The proposed Project area is located 12 km south of Paradeep port (2km from Paradeep Industrial Area, the nearest boundary of PIA is that of IOCL). The monitoring locations for the proposed project have been selected based on the guidelines of EIA and the data clearly indicates the impacts of industries in PIA on the baseline environment quality.

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		Govt. of India to grant environmental clearance on recommendation of Expert Appraisal Committee (EAC). The Board is not empowered to review the EIA report and the data reported in the report	
ii	Solid Wastes and Wastewater management details.	No comments. The Board is not empowered to review the EIA report and the data reported in the report. However, Solid Waste Management has been elaborated in the EIA Report.	The Project envisages maximum utilization of Solid Wastes generated during steel production. Iron and Steel making slag and fly ash from thermal power plant will be utilized for cement making and as construction aggregates. The Iron and carbon bearing waste material will be recycled within the plant. The Project envisages maximum recycle/reuse of wastewater after treatment within the plant. The water recovered from the Iron ore Slurry will also be used after suitable treatment. The major quantity of water usage in the ISP is in thermal power plant and will be met from sea.
iii	Construction of SFRC pre-cast pretension wall without approval of EC	Temporary Construction of boundary wall(fencing) for the proposed project area is a permitted activity.	Temporary Construction of boundary wall(fencing) is a permitted activity. Permission for using precast slab for fencing has been received from MoEF&CC.
iv	Comprehensive drainage plan to evacuate during cyclonic and rainy seasons	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter	From the land use and drainage study, it is seen that a minor stream is passing through the southern edge of plant. In order to evacuate water seamlessly JSW USL has commissioned expert agency to carry out comprehensive

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			drainage plan of the area.
v	Dispute on Mahanadi River between two states (Odisha & Chhattisgarh)	No Comments.	This is an interstate matter and JSW USL has no comments.
vi	Availability of water for the industrial activity from Jobra Barrage	No comments. However, as intimated by the proponent, Water Resource Department of Government of Odisha, has allocated the required quantity of water to JSW USL from Jobra as per the Government guidelines.	Water Resource Department after examining the availability of water from Jobra, has allocated the required quantity of water to JSW USL
vii	Action plan for Socio Economic Development	No Comments JSW USL has indicated an amount of Rs. 196.05 cr towards CER in EIA report.	As per the EIA guideline 2006, socio economic study has been conducted in 10 kms radial coverage from the proposed project site. The Socio Economic Development Plan has been prepared based on the expectation of the local peop as expressed during the public hearing and the need based assessment done during socioeconomic study. An amount of Rs. 196.05 cr. has been earmarked under CER, over and above the activities that will be carried out under CSR after start of plant operations.
viii	Cutting of tress in the project area	No Comments	The information on the number of trees existing is mentioned in the Stage II Forest Clearance. Project Proponent JSW USL has not carried out any detailed enumeration of trees in the project area. JSW USL also confirms that till date no tree has been cut.
ix	SIA	No comments	The draft Common EIA report was prepared prior to

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			<p>the public hearing and at the beginning of the public hearing the project proponent and the accredited consultant briefed about the project and Common EIA Report. Taking into consideration of the observations and concerns raised in the Public hearing, the Common EIA was finalized and submitted for appraisal by EAC. Nonetheless the response of the Project proponent to the concerns raised during the public hearing is also on record before the EAC.</p>
x	Proposal for BOOT model	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter.	In order to manage a large integrated steel plant as proposed, requires different types of technical capabilities and competencies. However, it has now proposed to control all plant operations under JSW USL only. In view of this the BOOT proposal originally envisaged has been withdrawn.
xi	Environmental impact on transportation of raw materials	No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. However, the environmental impact (fugitive dust emissions) due to movement of heavy-duty trucks through the NH, SH and the extension of the Surge Road to the plant has been carried out and included in the EIA report.	The environmental impact of dust due to movement of heavy-duty trucks through the NH, SH and the proposed roads to the plant has been carried out. It may be noted that nearly 90% of the raw materials and the finished products will be transported through sea and pipeline which have insignificant environmental impacts.

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
xii	Baseline data on fluoride and phenol.	No comments. The Board is not empowered to review the EIA report and the data reported in the report.	The Fluoride and Phenol data as indicated in the report are in microgram/liter and not in milligram/lit so the data indicated in the report is correct.
xiii	Norms for marine discharge	No comments. The Board is not empowered to review the EIA report and the data reported in the report.	The waste water generated from individual process units will be treated in the individual wastewater treatment plants to conform to the respective norms and finally further treated in a common effluent plant for plant reuse. The runoff water during the monsoon season will be taken in catch pits and clear water pumped to raw water reservoir for use. During the heavy rainfall, the overflow from the catch pits will be drained into peripheral drain leading to sea. The once through cooling water (sea water) will be discharged into the sea through specially designed diffusers maintaining the norms of differential temperature of 5°C by cooling in the cooling towers.
xiv	High level of pollution in Paradeep Industrial Area	Board has prepared an action plan for reducing the levels of air and water pollution from the existing industries in PIA and is being implemented	Please refer our reply given earlier.
xv	SO ₂ & NO _x emissions	No comments. However, JSW USL confirms to comply with the norms applicable for steel and power plants.	Project has been conceived based on the SO ₂ and NO _x standards applicable for integrated steel plant. JSW USL is committed to comply to some units to

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
			stricter standards as applicable in developed countries.
xvi	Variance in data of EIA and PPT	No comments. The Board is not empowered to review the EIA report and the data reported in the report.	Observation is generic in nature, inviting no comments.
xvii	Wet land	No comments as this is not related to the Board.	The wetland indicated in the map prepared by ORSAT Is not a designated "wetland" as notified by State Wetland Authorities. The wetland as indicated are natural streams prawn ponds and village ponds and do not require any special conservation efforts.
xviii	Shoreline erosion	No comments. However, the shoreline erosion management plan has been elaborated in the common EIA report	The shoreline erosion conservation plan has been elaborated in the EIA report.
xix	Modification of EIA report after public hearing	The EIA notification stipulates that the proponent has to incorporate the comments of public in the final EIA report. They have submitted the final EIA report incorporating the comments of public as informed by the proponent	Common EIA Report for ISP & Captive Jetties was prepared and submitted to OSPCB for public hearing as per the Terms of Reference mandated by respective EACS. During the appraisal of the committee, additional clarification/details was sought which was submitted to the EAC of MoEF&CC
4	Representation dated 13/09/2021		
i	Written representations received in favor of project during Public Consultations are fabricated.	The Board has forwarded all the communication received from the public during Public Hearing to MoEF&CC, Govt. of India along with the proceedings of the public hearing	The public hearing was conducted by the Odisha State Pollution Control Board (OSPCB) and District Administration. The objection/suggestions on the proposed project received before, during and after public hearing (PH) has been compiled by OSPCB.

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
			<p>The copy of the same was handed over to us along with the proceedings of the Public Hearing by OSPCB.</p> <p>A total 1082 representations received from the individuals during and after the PH which was endorsed by the State Pollution Control Board.</p> <p>Copy of the same has been sent to MoEF&CC along with the proceedings of the public hearing.</p>
ii	Livelihood of the local person likely to be affected due to project activity	<p>No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. The Board is not empowered to review the EIA report and the data reported in the report. However, JSW USL has informed to the public during public hearing that the setting up of the steel plant will open up large opportunities for socio economic development in the surrounding areas and has also committed Rs. 196 Cr towards CER for overall social economic development of the region. JSW USL has also replied positively to the queries raised by the public during the Public Hearing.</p>	<p>A large integrated steel plant of this size is a major "economic multiplier" leading to generation of multiple opportunities for overall socio economic development of the surrounding area.</p> <p>It is estimated the project will lead to generation of Direct employment - 3,000 (Construction Phase) & 12,000 (Operation Phase); Indirect employment 12,000 (Construction phase) & 45,000 (Operation Phase).</p> <p>Employment opportunities will be created in downstream activities related to processing of steel products as well. JSW USL has proposed to provide training, skill development to the local youth for gainful employment, entrepreneurship development and other income generating activities.</p> <p>JSW USL will provide a fishing jetty and</p>

S No	Representation points	Comment of OPCB dated 11/10/2021	Response made by PP dated 28/09/2021
			<p>mechanized boat facilities to the fishing community of Nolia sahi village.</p> <p>JSW USL have proposed to help the farmers in collaboration with the State Govt for better quality farming to enhance the quality and productivity of their produce.</p> <p>JSW USL has allocated Rs. 196 Cr towards CER for overall social economic development of the region</p>

53.13.25 M/s. JSW Utkal Steel Limited made reply to the observation made by EAC meeting held on 13-14th September, 2021 given as below:

S No	Observations of EAC	Response of PP
1.	Common EIA report submitted through PARIVESH and presentation made before the EAC does not have concurrence from WAPCOS, the EIA consultant for Jetty to incorporate their data in Common EIA prepared by M/s. M.N. Dastur & Co. This is a violation of NABET clause of Plagiarism. Team members' details from WAPCOS have also not been included in the Common EIA report.	<p>1. WAPCOS has given a NOC vide letter WAP/ENV/2021/158 dated 30/09/2021</p> <p>2. Name of WAPCOS Personnel who worked for the Jetty project is included in Common EIA.</p>
2.	Cumulative impact assessment is not available on Jetty EIA report uploaded on PARIVESH due to steel plant and that of steel plant due to Jetty in the EIA report.	<p>The additional impact due to Jetty operation would be air pollution due to bulk handling of raw materials, if not controlled. The area wise mitigation measures proposed for controlling the air emissions are given in the following text:</p> <p>Mitigation Measures: Bulk Cargo handling at Jetty During project operation phase, one of the major activities would be handling of the bulk cargoes like</p>

S No	Observations of EAC	Response of PP
		<p>Coal (Coking, PCI, Thermal), Anthracite, Limestone, Dolomite, Bentonite, Quartzite. These cargos are potential sources of dust and would contribute to fugitive dust emissions. The ISP would require about 25 MTPA of raw material including 16.5 MTPA of Coal Bearing Raw Material (CBRM), 3.7 MTPA of Fluxes (limestone, quartzite) and 5.3 MTPA of clinker, etc. The CBRM requirement of about 16.5 MTPA would include various types of coal such as, Coking coal, Anthracite, PCI coal and Thermal Coal. The coal cargo would be imported and brought to the captive Jetty(ies) via ship from foreign countries. The following management plan would reduce the impact of such emissions on the general environment.</p> <p>The impacts due to dust emissions could be substantially managed by containment and reduction of emissions. The reduction in the emissions is achieved by continuous spraying of water so that the surface remains moist and the dust gets suppressed. In materials where the water spray would change the characteristics of the material by making it muddy and slushy, foam cover has been successfully used elsewhere.</p> <p>It is proposed to install mechanized handling system and other associated equipment such as hoppers, belt conveyors, stacker cum reclaimers equipped with integrated dust suppression systems.</p>
3.	<p>Sand dunes inside the plant boundary measuring 11.53 ha shall be preserved. However, the point raised by EAC related to “in the vicinity of the project” has not been addressed. Please revise the layout with the sand dunes “in the vicinity” as well.</p>	<p>There is one large sand dune adjoining the project area, apart from few smaller patches. The details of the sand dune area are given below.</p> <p>Total area of sand dune is 80.87 Acres. Area of sand dune in plant area is 16.87 Acres.</p> <p>In addition, sand dunes were also found in the vicinity of the plant site as indicated in the CRZ demarcation map. Area beyond plant area is 64 Acres.</p>
4.	<p>27 million cum dredged sand shall be used to raise the plant level by 6.5 meter. Scheme to dispose balance sand and the sand recovered during annual maintenance dredging</p>	<p>Dredging of the port area and the approach channel would generate about 35 Million Cubic Meter of sand/Silt etc. About 25 Million would be used for reclamation in a manner so as not to contaminate the surface as well as the creek water. The balance material would be pumped back to the sea and disposed at the designated area determined through a</p>

S No	Observations of EAC	Response of PP
	shall be disposed offshore at two locations in the ocean. The mechanism to control turbidity due to the dredging in the area has not been furnished.	model study. There would be no environmental impact and the dredged product would be used for grade elevation of the plant and port area.
5.	Comprehensive drainage study of the area has not been done. It is simply mentioned that there are two streams passing through the property in Northern and Southern side of the plot. These streams shall be diverted and merged with the peripheral drain designed to carry cyclonic run off. No details related to the quantity of approximate drainage in the catchment, the size of diverted drains and peripheral drain that would handle this run off have not been furnished as required under comprehensive study asked by EAC in its meeting held on 18-19th May, 2021. The flood modelling study has been carried out by DHI for peak rainfall period.	2D modelling has been carried out using MIKE 21 Flow Model FM, which a modelling software based on a flexible mesh approach. It is used for flood modelling, estimating the flood depths in the study area. The Hydrodynamic Module used for flood modelling is based on the numerical solution of the shallow water equations - the depth-integrated incompressible Reynolds averaged Navier-Stokes equations. Model Scenario: 1. Simulation Period- 2 days (26-08-2020 to 27-08-2020) for baseline and proposed condition. 2. Model is performed by considering the existing ground condition for baseline and ground elevation increased by 7.5 m for proposed condition. 3. The maximum precipitation used in the model is 450 mm. 4. The flood plain on the left bank of Jatadhari river (western side of Jatadhari river) has lower elevation when compared with right bank of the river.
6.	Currently 80 % of the Jobra Dam water is drained into the sea as reported by PP. Proposed plant shall draw 98.1 Cusec water from Jobra (PP says), which will reduce the drainage into sea by maximum 10 %. Hence sea water desalination has not been considered from	a. Water availability Mahanadi River: River in central India, rising in the hills of south-eastern Chhattisgarh State. The Mahanadi (“Great River”) follows a total course of 560 miles (900 km) and has an estimated drainage area of 51,000 square miles (132,100 square km). Mahanadi passes through the State of Chhattisgarh and Odisha. The river meets the Bay of Bengal near Paradip. The river is perennial and has sufficient water for the various dependent stake holders and the industries

S No	Observations of EAC	Response of PP
	<p>commercial viability point of view and due to high power cost and its implication on climate change.</p> <p>a. Detailed report validating this claim that 80% water is drained into sea has not been submitted.</p> <p>b. Also, the above claim by PP that enough water is available needs to be confirmed by Authorities managing water in the state. No calculations are available on the cost of desalination vs the CAPEX and OPEX of water withdrawal from Jobra Barrage</p>	<p>The discharge from Jobra barrage in the past 10 years was zero on 11 days (2 in Jan 2011; 8 in Feb 2011 and 1 in Sep 2017), i.e., there was discharge from the barrage for 99.7% of the time. Barring the year 2011, there has never been an incident in the last 11 years, hence, this could be surmised as a one of incident.</p> <p>The daily discharge data from Jobra barrage at 90%; 85%;80% and 75% confidence level shows that the requirement of 98.1 Cusecs of makeup water for JSWUL can be met for the steel plant. Accordingly, analysis of this fairly long term data, it could be concluded that with the above water availability over a long period of time, the requirements of the ISP proposed to be developed by the JSWUL could be accommodated with ease. The Water Resources Department (WRD), Government of Odisha, after analysis of the available data and the projection carried out by them, has permitted the following.</p> <p>b. Confirmation on availability from Authorities:</p> <p>WRD is the nodal agency responsible for managing the water resources in the state and based their analysis and projection in the short, medium and long term recommended that.</p> <p>i) Provided in-principal allocation of 117.1 Cusecs of water for setting up of the employment generating steel plant vide letter 2618/WE dated 31st Jan 2018.</p> <p>ii) WRD has further conveyed that the Committee comprising of Department of the Water Resources (DoWR), Industrial Development Corporation, Bhubaneswar, Odisha (IDCO) and JSWUL has finalised the location of intake well for drawl 99.8 Cusecs (revised by JSWUL) of water from Mahanadi near Jagatpur (upstream of Jobra).</p> <p>The above documents from WRD, clearly indicate the availability of 99.8 Cusecs of water from Mahanadi (near Jagatpur) for the proposed ISP.</p>

S No	Observations of EAC	Response of PP
		<p>c. Desalination Plant in-lieu of the water from Jobra Barrage</p> <p>Based on the requirements of the committee the option of having a desalination plant in place of Jobra barrage water was also examined by comparing installed SWRO systems to meet the drinking water requirements of Chennai and other suburbs. From the comparison usage of fresh water from Jobra barrage will save electricity of 34.2 MW Hence, carbon release controlled would be 248,600 t CO₂/year.</p>
7.	<p>WHR from Sinter Cooler for preheating of combustion air in ignition furnace has been proposed. No Power recovery as part of energy efficiency has been considered. The benefits of the proposal over the provision of power generation from Sinter Cooler Waste Heat have not been given. PP has ignored the suggestions of EAC w/o giving any reason</p>	<ol style="list-style-type: none"> 1. In integrated steel plants, large quantity of process steam is required in Coke Ovens (distillation, purging etc); Blast Furnace (Humidification); Steel Making (Vacuum generation) and Cold Rolling Mill (Heating applications). 2. Traditionally from an energy efficiency point of view, process steam is generated from low quality waste heat (sensible heat of waste gases) for generation of process steam. In case of power plants, and CDQ (where the temperatures are high) HP steam (> 120 bar) is generated which is then used for power generation. 3. The waste heat in case of sinter cooler is used for generating process steam, which is Blast humidification. 4. JSWUL proposes to use medium pressure steam as “process steam” than convert it to “electrical power”, which is more energy efficient. 5. JSWUL, has in addition to the above included a Waste heat recovery from waste gases (temp: 150-160 0C), like EOS which helps in: <ol style="list-style-type: none"> a) reducing the coke rate by 4-5 kg per ton of sinter. b) ~50% reduction in emission volume with commensurate reduction of gaseous pollution like CO, SO₂, dioxins & Furans and dust.
8.	<p>MEROS like technology has been proposed for</p>	<ol style="list-style-type: none"> 1. In Sinter Plants, Dioxins and Furans are formed by de novo reactions, primarily due to presence of oils

S No	Observations of EAC	Response of PP
	control of dioxins and furan in Sinter plant. Guaranteed emissions per Nm ³ of flue gas based on this technology have not been furnished	<p>and chlorides.</p> <p>2. Dioxins and Furans are volatile compounds which condense on dust particles, which act as nuclei for their condensation</p> <p>3. The focus of their control of emission is by:</p> <p>a) By reducing the dust emissions (condensed dioxins/Furans on dust) by high efficiency ESP/Bag Filter and</p> <p>b) Adsorption (for non-condensed dioxins & Furans) by activated carbon, anthracite, sodium bicarbonate etc</p> <p>4. EU-BAT: In Europe, the recommendations are through a combination of Primary Controls i) Stable & Consistent operation of SP ii) Raw material quality control (oil content < 0.2%) Secondary Controls i) Carbon adsorption ii) Waste gas recirculation (~50%) iii) Control of dust emission (Advanced ESP/MEROS type Bag filter)</p> <p>5. The control of Dioxins and Furans is by a combination of the above measures and normally suppliers of bag filters do not guarantee for the emissions of Dioxins & Furans.</p> <p>6. The system proposed by JSWUL is designed to guarantee <0.2 ng/Nm³ of Dioxins & Furans in waste gases.</p>
9	Details of the effluent to be generated from Cold Rolling Mill and mechanism to be adopted for the disposal of hazardous waste from CRM has not been submitted	<p>The wastewater generated from 2X2.3 MTPA units of CRM is divided into the following three streams for separate treatment in the Effluent Treatment Plant (ETP):</p> <p>i) Emulsion(oily) water treatment system: Treatment: Equalisation-PH reduction to separate oil - Oil removal in DAF- BOD Plant for reduction of BOD - Treated water tank</p> <p>ii) Alkali/Acid wastewater treatment: Equalisation-pH Correction-Iron removal by pH</p>

S No	Observations of EAC	Response of PP			
		<p>correction- Clarifier- pH Correction- Treated water tank</p> <p>iii) Chrome water Treatment: Equalisation- (SMBS, Acid addition for ORP control)-Precipitation- PSF-treated water tank.</p> <p>The combined treated water is passed in an RO plant to recover water. The rejects are sent to CETP for further treatment, to ensure Zero Liquid discharge.</p>			
10.	Details of Hazardous wastes from CRM	Sl. No.	Hazardous Waste	Generation (annual)	Disposal Method
		1	Waste Oil	40 KL	Sale to authorized re-processor
		2	Used Oil	20 KL	Sale to authorized re-processor
		3	Waste Pickled Liquor	18000 KL	Treatment in ARP for recycle
		4	Acid Residue	300 t	Treatment in ETP. Salt from ZLD to authorised TSDF
		5	Alkaline Residue	200 t	Treatment in ETP. Salt from ZLD to authorised TSDF
		6	Oil-soaked cotton wastes	160	Incinerate
		7	ETP Sludge	1500	Recycle through Sinter Plant
		8	Oil Skimming Residue	800	Incinerate
		9	Spent Ion Exchange resin	20	Recycle through coke oven.
		10	Spent activated Carbon	100	Recycle through coke oven.
		11	Zinc Dross	14000	Sale to authorized re-processor
		12	Filters and filter materials	100	Incinerate
		13	Discarded MS container	3000 Nos.	Sale to authorized re-processor
		14	Discarded Plastic Container	5000 Nos.	Sale to authorized re-processor
		15	Magnetic separator oil	1400 t	Incinerate

S No	Observations of EAC	Response of PP																																	
		<table border="1"> <tr> <td>slurry</td> <td></td> <td></td> </tr> </table> <p>An incinerator (1000 kg/d) is proposed to incinerate hazardous wastes,</p>	slurry																																
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11.	<p>Physical targets of EMPs for socio economic development as per OM of 30th Sept 2020 to be completed @ 196.05 Cr in 4 years have been given. However, EAC recommended to complete in three years. Accordingly, revised action needs to be submitted.</p>	<p>An amount of Rs 196.05 Cr has been earmarked for addressing the issues raised in the Public Hearing and physical targets has been revised considering 3 years. The details under different heads are given below and the activities are elaborated in the following table:</p> <table border="1"> <thead> <tr> <th>S No</th> <th>particulars</th> <th>Cost in Rs</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Area Development in villages</td> <td>44.25 Cr</td> </tr> <tr> <td>2</td> <td>Medical facilities</td> <td>24.00 Cr</td> </tr> <tr> <td>3</td> <td>Education</td> <td>6.80 Cr</td> </tr> <tr> <td>4</td> <td>Drinking Water facilities</td> <td>20.00 Cr</td> </tr> <tr> <td>5</td> <td>Livelihood improvement of fishermen</td> <td>11.00 Cr</td> </tr> <tr> <td>6</td> <td>Solar lamps/electricity</td> <td>2.00 Cr</td> </tr> <tr> <td>7</td> <td>Infrastructure Development</td> <td>16.00 Cr</td> </tr> <tr> <td>8</td> <td>Eco restoration</td> <td>15.00 Cr</td> </tr> <tr> <td>9</td> <td>Vocational Training</td> <td>57.00 Cr</td> </tr> <tr> <td></td> <td>Total</td> <td>196.05 Cr</td> </tr> </tbody> </table>	S No	particulars	Cost in Rs	1	Area Development in villages	44.25 Cr	2	Medical facilities	24.00 Cr	3	Education	6.80 Cr	4	Drinking Water facilities	20.00 Cr	5	Livelihood improvement of fishermen	11.00 Cr	6	Solar lamps/electricity	2.00 Cr	7	Infrastructure Development	16.00 Cr	8	Eco restoration	15.00 Cr	9	Vocational Training	57.00 Cr		Total	196.05 Cr
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12.	<p>Nearly 1.3 lakh trees likely to be removed to set up the facility. Scheme to ensure felling of trees to bare minimum and the compensatory afforestation against the felling of trees needs to be submitted. Scheme to ensure felling of trees to bare minimum and the compensatory afforestation against the felling of trees needs to be submitted.</p>	<p>A. A comprehensive plantation is planned under this project of ISP. The details are given below.</p> <ul style="list-style-type: none"> <li>i) Compensatory afforestation (CA) plan has been approved and plantation has already been done over 745 ha as reported by DFO Cuttack. <li>ii) CA in mangrove area has been carried out in an area of 81.94 ha by DFO Rajnagar <li>iii) Balance CA over an area of 256.751 ha is under implementation by both the DFOs <li>iv) In addition, JSWUSL will bear the cost of regeneration of degraded forest of area 1254 ha as per the scheme prepared by DFO Rajnagar <li>v) Additional 169 ha of forest land adjoining to the project area to be regenerated nearly 33% of project area will be developed under green belt and greenery enhancement with 2500 trees per Ha. <p>B. Felling of trees to be bare minimum: It would be our endeavour to minimise felling of trees and the detailing of the plant would be suitably modified based on the site condition and the type of tree involved.</p>																																	
13	<p>Justification to select 8 Numbers of AAQ</p>	<p>The NO_x reduction in waste gases from 3x300 MW Thermal Power Plants (CPP) is carried out by the</p>																																	

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	<p>monitoring stations on land has been given. Desulfurization of COG and Power Plant flue gases has been proposed and Low NOx burners and DENOX facility using Ammonia has been proposed. On review of DMP in Chapter seven of EIA report, HIRA for NH3 has not been done</p>	<p>traditional SCR process, using ammonia as a reagent. i)Ammonia storage tanks-2 Nos. Horizontal storage tanks ii)Capacity of each tank-50 tons Liquid storage iii)Location -Near stack of CPP for DeNOx</p> <p>HIRA has been carried out for the ammonia storage</p> <p>The consequence analysis for leakage from ammonia tank was carried out using DNV Phast Lite 7.1. As seen from the model output graph, the concentration of interest (35 ppm) corresponding to the STEL value of Ammonia extends up to a maximum distance of around 620 m downwind. Given the proposed location of the ammonia storage tank, it may be concluded that the impact due to accidental leakage of ammonia would be contained within the plant boundary.</p>																																																							
14	<p>The land use pattern for the diverted forest land as per FC of 10/10/2019 has been given. In this regard, updated status has not been furnished.</p>	<p>i)No change in status of forest land as per FC ii)No activity started till date iii)Boundary wall construction to start. Permission received from MoEFCC</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Facilities</th> <th>Forest</th> <th>Non-Forest</th> <th>Greenbelt</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Raw material storage & landing yard for Ore & Flux, Iron ore slurry, Thermal coal yard</td> <td>52.630</td> <td>-</td> <td>9.086</td> </tr> <tr> <td>2.</td> <td>Raw material storage & landing yard for Imported coal, PCI, Lime stone and Pellet</td> <td>22.790</td> <td>20.073</td> <td>7.826</td> </tr> <tr> <td>3.</td> <td>Iron making plant</td> <td>178.310</td> <td>2.780</td> <td>26.466</td> </tr> <tr> <td>4.</td> <td>Steel making Plant</td> <td>73.305</td> <td>-</td> <td>9.379</td> </tr> <tr> <td>5.</td> <td>Rolling Mill</td> <td>183.447</td> <td>-</td> <td>22.349</td> </tr> <tr> <td>6.</td> <td>Captive Power Plant</td> <td>51.330</td> <td>-</td> <td>8.510</td> </tr> <tr> <td>7.</td> <td>Disposal Area</td> <td>20.740</td> <td>-</td> <td>3.334</td> </tr> <tr> <td>8.</td> <td>Water/waste water treatment plants, Treated Waste water holding pond</td> <td>60.240</td> <td>-</td> <td>4.501</td> </tr> <tr> <td>9.</td> <td>Cement plant</td> <td>33.500</td> <td>-</td> <td>5.024</td> </tr> <tr> <td>10.</td> <td>Main Admin office</td> <td>7.680</td> <td>-</td> <td>1.191</td> </tr> </tbody> </table>	Sl. No.	Facilities	Forest	Non-Forest	Greenbelt	1.	Raw material storage & landing yard for Ore & Flux, Iron ore slurry, Thermal coal yard	52.630	-	9.086	2.	Raw material storage & landing yard for Imported coal, PCI, Lime stone and Pellet	22.790	20.073	7.826	3.	Iron making plant	178.310	2.780	26.466	4.	Steel making Plant	73.305	-	9.379	5.	Rolling Mill	183.447	-	22.349	6.	Captive Power Plant	51.330	-	8.510	7.	Disposal Area	20.740	-	3.334	8.	Water/waste water treatment plants, Treated Waste water holding pond	60.240	-	4.501	9.	Cement plant	33.500	-	5.024	10.	Main Admin office	7.680	-	1.191
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S No	Observations of EAC	Response of PP									
			and common facilities								
		11.	Railway siding/ Truck Handling & Raw material unloading	30.820	-				4.540		
		12.	Captive Jetty	14.400	54.177	22.700					
		13.	Supporting Auxiliaries comprising of MRSS, Stores &	40.630	0.493	6.376					
		14.	Roads, Parking & drains	43.894	3.970	5.801					
		15.	Peripheral Green Belt	239.720	13.030	252.750					
		16.	Water Reservoir	30.255	15.760	4.367					
			Total Land	1083.691	110.283	394.200					
15.	<p>Details of sea water requirement for once through cooling for a max temperature increase of 5°C has been given. Maximum 130000 cum/Hr. water shall be required. Water shall be discharged in the sea 2.25 km away from the shore. Details of the scientific assessment carried out for selecting the location of the sea water discharge has not been made available.</p>	<p>The Integrated Steel Plant (ISP) on the Bank of Jatadhari Muhan, consists of 3 x 300 MW power plant, using combination of coal and surplus By-Product Fuel gases from the steel plant. Due to the abundance of water in the vicinity, it was considered apt to adopt once through cooling system for the power plant. Accordingly, about 130,000 m³/hour sea water would be pumped into the cooling water circulation system of the power plant and after re-circulation the water would get heated up by 70C to 80C, the hot water would be cooled in the cooling tower to the permissible $\Delta t < 5^\circ\text{C}$ before getting discharged into the ocean at the out-fall location through a series of diffusors.</p> <ol style="list-style-type: none"> 1. Locate a Pump house on Piles in deeper water at the end of Jetty No. 1. 2. Pump house on the rubble mound alongside the breakwater, with an intake channel leading to the intake sump form where the cooling water would be pumped to the power plant. <p>Both the alternatives for the intake well discussed above is possible to adopt at the proposed location. However, the final decision on the same would be based on the detailed examination of the site and design of Jetty.</p> <p>Mathematical modelling study, performed to assess and evaluate the effluent dispersion in the surrounding</p>									

S No	Observations of EAC	Response of PP																									
		<p>coastal waters.</p> <p>The discharged water from outlet condenser of the power plant is 36 m³/s. The discharged water at the outfall location is included in the model as an isolated source in the immediate coastal environment at the disposal location with an excess temperature in the order of 3-5°C, the dissipation is rapid and over a very small area</p>																									
16.	<p>Green belt shall be proposed with a tree density of 2500 trees per ha. Plantation shall be completed in 5 years. During discussions it emerged that only 25 % green belt has been proposed inside the plant and balance 8 % plantation shall be done outside the plant boundary. The land outside does not belong to PP. EAC does not accept this proposal. PP needs to submit revised action plan for green belt development covering 33% of the project area under green belt development with a tree density of 2500 trees per hectare.</p>	<p>The greenbelt plan is determined based on the following:</p> <p>i) Greenbelt to the extent of 33% of total project area would be maintained</p> <p>ii) Greenbelt: 394.2 ha (Including Jetty) area with a density of 2,500 trees per ha</p> <p>iii) A three-tier plantation scheme would be adopted in the periphery of the plant</p> <table border="1"> <thead> <tr> <th>Plan period</th> <th>Area, Ha</th> <th>No. of Trees</th> <th>Plantation Area</th> <th>Tree Species</th> </tr> </thead> <tbody> <tr> <td>1st year</td> <td>100</td> <td>250000</td> <td>Along the periphery</td> <td>Amaltas, Copperpod, Gamga imli, Indian tulip, Jau, Jarul, Jamun, Kadamba, Kachnar, Khajur, Neem, Peepal, Sisua.</td> </tr> <tr> <td>2nd year</td> <td>72</td> <td>180000</td> <td>Along the periphery</td> <td>Amaltas, Copperpod, Gamga imli, Indian tulip, Jau, Jarul, Jamun, Kadamba, Kachnar, Khajur, Neem, Peepal, Sisua.</td> </tr> <tr> <td>3rd year</td> <td>100</td> <td>250000</td> <td>Avenue plantation and between the shop area</td> <td>Bakul, Bougainvillea, Jarul, Joba, Kachnar, Karabi Kadamba, Neem, Yellow oleander.</td> </tr> <tr> <td>4th year</td> <td>50</td> <td>125000</td> <td>Avenue plantation and around the slag storage area</td> <td>Amaltas, Bakul, Devdaru, Jarul, Joba, Kadamba, Khajur, Kachnar, Karabi, Neem, Tagar, Rangan, Yellow</td> </tr> </tbody> </table>	Plan period	Area, Ha	No. of Trees	Plantation Area	Tree Species	1st year	100	250000	Along the periphery	Amaltas, Copperpod, Gamga imli, Indian tulip, Jau, Jarul, Jamun, Kadamba, Kachnar, Khajur, Neem, Peepal, Sisua.	2nd year	72	180000	Along the periphery	Amaltas, Copperpod, Gamga imli, Indian tulip, Jau, Jarul, Jamun, Kadamba, Kachnar, Khajur, Neem, Peepal, Sisua.	3rd year	100	250000	Avenue plantation and between the shop area	Bakul, Bougainvillea, Jarul, Joba, Kachnar, Karabi Kadamba, Neem, Yellow oleander.	4th year	50	125000	Avenue plantation and around the slag storage area	Amaltas, Bakul, Devdaru, Jarul, Joba, Kadamba, Khajur, Kachnar, Karabi, Neem, Tagar, Rangan, Yellow
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S No	Observations of EAC	Response of PP				
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		5th year	50	125000	In between the shop area	Amaltas, Bakul, Devdaru, Joba, Kadamba, Khajur, Kachnar, Karabi, Tagar, Rangan, Yellow oleander.
17.	Plant runoff water shall be treated for TSS and Oil and Grease. The capacity of the treatment plant based on worst case cyclonic scenario has not been furnished.	The plant layout has been firmed up considering drains all along the plant roads and these drains would lead to 5 Nos. of concrete open channels of size 2.3 m wide and 1.6 m depth to discharge into Jatadhar Mohan river/Sea. It is also proposed to construct 15 Nos. catchpits of size 10 m (length) x 2.5 m (width) x 4 m (depth) to settle the suspended solids. These catchpits would also be equipped with oil skimmers to remove Oil & Grease from the surface run off. The water impounded in the catchpit would be pumped to the raw water treatment plant for utilization to the extent possible and the balance storm water would be drained to the Jatadhar Mohan River/Sea.				
18.	Sodar Study Details have not been furnished	SODAR study details submitted				
19.	Wet lands have been described and marked by PP on map. However, conservation plan to protect the wet land has not been made available by the proponent.	<p>The Wetlands (Conservation and Management) Rules, 2017 define wetland as - “an area of marsh, fen, peatland or water; whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters, but does not include river channels, paddy fields, human made water bodies/ tanks specifically constructed for drinking water purposes and structures specifically constructed for aquaculture, salt production, recreation and irrigation purpose.”.</p> <p>Coastal wetlands include mangrove, coral reefs, mudflats and estuaries, act as a physical barrier that limit the damage of storm and tidal surges. In the study area diameter of 10 km a small patch of natural coastal wetland was observed. The Wetlands Division of the Ministry of Environment, Forest & Climate Change (MoEF&CC) have identified the site as “Other Wetland Area”.</p> <p>Mangrove system The seaweeds, sea grass and mangroves ecosystem were studied by National Institute of Oceanography, Regional Centre, Mumbai at three intertidal transect</p>				

S No	Observations of EAC	Response of PP
		<p>along with other nearby areas perpendicular to the shores for evaluating marine vegetation.</p> <p>No seaweeds were observed in the study area during the study period. A small patch of seagrass species <i>Holodule</i> sp. of family Cymodoceaceae was observed in the intertidal region near the mangroves. Mangroves are absent at the three intertidal transects of the study area. Only a scanty patch of <i>Avicennia</i> spp was observed on the opposite shore about 2 km away from the proposed location was observed.</p> <p>Wetland Conservation Plan: The identified wetland is at about 3 km from the site. No construction activity is proposed near the wetland. The probable impacts on the wetland can be due to;</p> <ul style="list-style-type: none"> a) Change in the natural hydrological regimes that will change or alter the availability of the water. b) Water pollution <p>As a part of the mitigation measure and conservation of the wetland JSWUL has proposed the following:</p> <ul style="list-style-type: none"> a) An open pile construction the jetty is proposed. This will permit unhindered flow of water. b) Major construction activities will be carried out on the land away from the creek to avoid spillages into the water body. The wash off from the construction site will be collected in the drains and treated (settling of mud) before released to the estuary. c) No solid/ municipal waste will be released into the creek/ water body. MoU will be signed with competent authorized agencies to collect and disposed solid waste (municipal, hazardous etc.) as per the Solid Waste Management Rules, 2016 (SWMR). d) Effluents and domestic wastewater will be treated in the ETP and STP to meet the guidelines of the CPCB and SPCB and released at the location as identified by DHI through the model study. e) Oil Spill Contingency Plan will be prepared as per the requirement of National Oil Spill – Disaster Contingency Plan (NOS-DCP) and will be available at the jetty. Inflatable booms, containment booms, portable pumps, oil skimmers, absorbent pads and

S No	Observations of EAC	Response of PP																									
		oil spill dispersants will be procured and stored at the Jetties to contain dispersion of oil in case of spills.																									
20.	Details of access road to NH5 and NH 12 have not been described along with impact of project on the roads	<p>The details of four roads connecting the proposed steel plant to the nearest state and highways and the Impact assessment of vehicular movement for raw materials and finished products has been addressed in Section 4.5.4 of the Common EIA Report</p> <p>The Projected Average daily traffic (ADT) in study area is given below.</p> <table border="1"> <thead> <tr> <th>Vehicle type</th> <th>NH 55 connector</th> <th>SH 12 connector</th> <th>NH 53 connector</th> <th>Surge Road</th> </tr> </thead> <tbody> <tr> <td>HMV</td> <td>3352</td> <td>1064</td> <td>865</td> <td>747</td> </tr> <tr> <td>LMV</td> <td>838</td> <td>266</td> <td>465</td> <td>611</td> </tr> <tr> <td>Total</td> <td>4190</td> <td>1358</td> <td>1330</td> <td>1330</td> </tr> <tr> <td>MSA</td> <td>91.4</td> <td>29.6</td> <td>29</td> <td>29</td> </tr> </tbody> </table> <p>The roads shall be implemented as below.</p> <p>i) All internal roads shall be of Concrete roads designed for 25-year life and to carry heavy loads</p> <p>ii) All connecting roads shall be of bituminous type designed as per IRC guidelines taking into account the msa value corresponding to the type and number of vehicles proposed in the roads</p>	Vehicle type	NH 55 connector	SH 12 connector	NH 53 connector	Surge Road	HMV	3352	1064	865	747	LMV	838	266	465	611	Total	4190	1358	1330	1330	MSA	91.4	29.6	29	29
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21	Impact of thermal discharge into sea and mechanism to control the Delta T within 5 Degree C has been furnished. Details of scientific study carried out in this regard to be submitted.	Mathematical modelling study, performed to assess and evaluate the effluent dispersion in the surrounding coastal waters.																									
22	Committee recommended to seek the views of Odisha Pollution Control Board and the project proponent	<p>1. EAC taken note of the public representations received</p> <p>2. Views of Odisha Pollution Control Board and the project proponent.</p> <p>a) Views of OSPCB: Sent vide letter no. 15836/IND-II-PH-810 dated 11/10/2021</p> <p>b) Views of Project Proponent: Communicated vide letter no. JSW/U/O/2021/172 dated 23/09/2021</p>																									

53.13.26 Details of the additional studies carried out as a part of the Environmental Impact Assessment (EIA)/ EMP study, the various studies undertaken are as follows;

- i. LTL/HTL Demarcation and CRZ Mapping Study by NCSCM, Chennai (MoEFCC, Govt. of India).
- ii. Marine Biodiversity Impact Assessment and Management Plan by CSIR-NIO, Mumbai.
- iii. Risk Analysis and Disaster Management Plan by WAPCOS Ltd. (Govt. of India Undertaking).
- iv. Met-oceanic (Wave, Current, Tide) and Geophysical (Bathymetry, Sub-bottom profile) Survey by M/s Indomer Coastal Hydraulics (P) Ltd.
- v. Geotechnical survey was carried out by M/s COMACOE, Mumbai.
- vi. Mathematical Model Studies (marine discharge of treated wastewater; storm water management; Shoreline studies) by M/s. DHI India Ltd.
- vii. Traffic Management Study by M/s. M N Dastur & Company (P) Ltd. [MND]
- viii. Navigation Simulation Study by HR Wallingford, UK.
- ix. Sodar studies for assessing the mixing heights in the proposed project area by MND
- x. SIA study carried out by Starr Organization, Bhubaneswar.

53.13.27 During this period, EAC and Ministry was in receipt of following representations:

S No	Date	Issues raised
1	25/01/2022	<ul style="list-style-type: none"> • Conduct comprehensive studies to understand the existing pollution load and carrying capacity of the region around Paradip Port and Dinkia village. • A recently released report by CREA titled Health impacts Assessment and Assessment of the EIA report of Integrated Steel Plant, JSW Utkal Steel Limited, Odisha, India by Sunil Dahiya and Lauri Myllyvirta expose the serious shortcomings in the EIA report for the project leading to fraudulent representation of actual environment impact due to the project, as well as serious health impacts of the proposed project are highlighted in this report.
2	27/01/2022	<ul style="list-style-type: none"> • To give scrutiny to the recent submission of additional study reports by JSW Utkal Steel Limited based on following points <ol style="list-style-type: none"> 1. Public hearing was not conducted according to stipulated procedure. 2. Non-settlement of forest rights and questionable forest clearance 3. Water requirement and source sustainability 4. Health impacts
3	26/01/2022	<ul style="list-style-type: none"> • Human rights violations by the police at the behest of the Odisha Government which on acquiring the land for JSW

S No	Date	Issues raised
		<ul style="list-style-type: none"> • JSW project will destroy the local communities' lives and sustainable livelihoods from betel and fruit cultivation and prawn culture
4	27/01/2022	<ul style="list-style-type: none"> • Social Impact Assessment • Coastal Area Violation • Placed two containers at coastal area and started office • Made temporary roads by damaging sand dunes
5	28/11/2021	<ul style="list-style-type: none"> • There has been tremendous movement of police forces (more than 20 platoon) and some heavy construction activity has been envisaged on the proposed area making the situation tenser and unstable.
6	27/01/2022	<ul style="list-style-type: none"> • To stop adding any more polluting industries to the area near Paradip Port and Dinkia. • The EIA compares the three-season average to daily PM₁₀ levels. This comparison is skewed as there is a significant difference between the aforementioned data points. While the daily PM₁₀ standard is 100 µg/m³, the annual standard is 60 µg/m³. Therefore, seasonal and cross-seasonal averages should always be compared to annual rather than daily standards.
7	25/01/2022	<ul style="list-style-type: none"> • The EIA report misses out on accounting for incremental PM_{2.5} from the plant operation. Air pollution dispersion model which doesn't account for secondary particulate formation, PM_{2.5} formed from SO₂ and NO_x emissions.
8	22/01/2022	<ul style="list-style-type: none"> • Misleading and Incomplete data in Integrated EIA and in response to the EDS details etc.

53.13.28 The representations referred at para no. 53.13.27 have been made available to the project proponent. The response given by the proponent are given as below.

S No	Concerns	JSW USL's Responses
Reply to Representations dated 25/01/2022 (Sl. No. 1), 27/01/2022 (Sl. No. 6) and 25/01/2022 (Sl. No. 7) of table at para 53.13.27 above		
1.0	Shortcomings in EIA report:	
1.1	The EIA compares the three-season average to daily PM ₁₀ levels. This comparison is skewed as there is a significant difference between the aforementioned data points. While the daily PM ₁₀ standard is 100 µg/m ³ , the annual standard is 60 µg/m ³ . Therefore, seasonal and cross-seasonal averages should always be compared to annual rather than daily standards.	<p>The guidelines issued by MoEFCC for Integrated Steel Plant mandate monitoring of base line data and impact assessment based on the one season data [summer or winter]. The common EIA report has been prepared considering the one season data and therefore, daily avg. values of pollutant have been computed.</p> <p>In view of this, only one season data has been taken into consideration and three seasons data have not been considered as it is not mandated in the ToR of EIA. Accordingly, 24</p>

S No	Concerns	JSW USL's Responses
		hrs daily avg. values have been compared.
1.2	As part of the EIA report, 50 readings per station were collected across seasons to assess ambient air quality. According to the CPCB protocol, 50 or more days of monitoring in a year should be compared to the average annual concentration (CPCB, 2020).	One season [12 weeks] data is to be collected as per ToR for Integrated Steel Plant.
1.3	The EIA report misses out on accounting for incremental PM2.5 from the plant operation. These emissions are the most harmful part of the particulate pollution and should be integral to Environment and Health Impact Assessments	The emission from the process stack are monitored as total dust expressed in mg/Nm ³ . To carry out the modeling for PM10 and PM2.5, the emission data from the individual stack need to be monitored. Currently, there is no authenticated data for PM2.5 from the stack for carrying out dispersion modelling for PM2.5. The PM values indicated constitute of PM10 and PM2.5 and therefore, the impact of 2.5 is already included in the ground level concentration
1.4	The EIA report also misses out on accounting for Mercury (Hg) or any other heavy metal from the plant operation, which should have been reported in the Environment and Health Impact Assessments.	The NAAQ standard does not stipulate Mercury in Ambient Air and therefore, the Mercury emission has not been considered. Moreover, the Mercury emission from ISP is insignificant. Other heavy metals such as As, Ni and Pb as mandated in NAAQS have been monitored.
1.5	The EIA report uses an air pollution dispersion model which doesn't account for secondary particulate formation, PM2.5 formed from SO2 and NOx emissions. These formed secondary PM2.5 make up a more significant component of the total PM2.5 emission load from any fossil fuel combustion facility (Dahiya & Myllyvirta, 2021). Accounting for secondary particulates make the predicted PM levels from the plant multiple times higher (CREA, 2021). Therefore, the ignorance of secondary particulate formation leads to a significant underestimating of the total pollutant concentrations.	The secondary emissions are formed over a longer period of time from. The formation of secondary pollutant depends upon several other parameters like moisture, Temp, locality etc. There is no accredited dispersion model for predicating the secondary emissions from the ISP. The accounting of secondary pollutants are not mandated in ToR as it required longer period of time for assessment. EIA report preparation is a pre-project activities to be completed with one season data.
1.6	Lime Kiln, Cement Plant, and a few other combustion sources have entirely omitted data on NOx emissions without any explanation. Combustion of any fuel produces NOx emissions, which should be accounted for to ensure environmental impact assessments are comprehensive and nuanced.	Lime kiln proposed in this project utilizes the mix gas as fuel and emissions are mainly PM and insignificant amount of NOx. This has been confirmed from the operating data of kiln of similar capacity of other units of JSW. The proposed cement plant is for production of pozzalona cement from fly ash and slag which are generated as waste in steel making. Only grinding and mixing unit are planned.

S No	Concerns	JSW USL's Responses
		Since burning of fuel is not there and hence NOx from Cement Plant has not been considered.
2.0	High Emission Load in Critically Polluted Area	
2.1	Paradip, Jagatsinghpur (~5- 10 km aerial distance from the proposed ISP site) is known as one of the most polluted geographies in India and has been classified as a severely polluted area under the Comprehensive Environmental Pollution Index (CEPI) (OSPCB, 2020). The average PM10 and PM2.5 levels in 2018 for Paradip area were respectively reported at 119 (36-317) ug/m ³ and 48 (16-161) ug/m ³ as monitored by the Odisha State Pollution Control Board, which are higher than the prescribed annual permissible limits of 60 ug/m ³ and 40 ug/m ³ for the pollutants.	The proposed project site is 12 Km SE of Paradip and is not a part of any Severely Polluted area as notified by CPCB. The impact assessment has been carried out, based on the present level of the pollutants in the study area.
2.2	The total emission load was at 12,700 kg/day for PM; and 43,600 kg/day for SO ₂ for the entire industrial cluster of 15 Red category industries in the area at Paradip. On the other hand, the emission load from the proposed ISP is estimated at ~25,800 for PM and ~31,900 kg/Day for SO ₂ , respectively, Making the project a highly polluting source within the same district. The above-presented data highlights that:	The values indicated are max allowable emissions as applicable for ISP. However, the actual emission will be much lesser due to adaptation of state of art technologies like Meros, High Efficient back filters/ESPs, flue gas de-sulphurization in Sinter and Thermal Power Plant in addition to coke oven gas de-sulphurisation.
2.3	The proposed project site is just 5-10 km away from the already severely polluted area of Paradip and receives pollution from the region resulting in already high air pollution levels at the proposed project site as reported in the EIA report and mentioned in the earlier section.	The replies are given at S. No. 2.2.
2.4	The emission load of the proposed plant will be ~2 times the emissions for the entire cluster at Paradip for PM and 2/3rd for SO ₂ , which means that the air quality will deteriorate further, resulting in severe health impacts and extension of the intensity and geographical reach of already existing CEPI area in the Jagatsinghpur district.	The replies are given at S. No. 2.2.
3.0	Health Impacts:	
3.1	The air pollutant emissions would be responsible for an estimated 94 deaths per year (95% confidence interval: 65 - 129). Air pollution would also lead to a projected 180 emergency room visits due to asthma, 160 preterm births and 75,000 days of work	The health impact assessment is not a part of EIA as per ToR as its requires longer period of time. The health impact assessment model used by CREA is primarily for thermal power plant. It may be noted that the emissions from the

S No	Concerns	JSW USL's Responses
	absence per year. Additionally, this is to be noted that the affected villages in Dhinkia Charidesh has a population of more than 22,000 people who will be forced to bear the brunt of dangerous cumulative emissions of greenhouse gases along with scarcity of clean drinking water. Hence, we demand the withdrawal of the proposal of JSW Utkal Steel Limited's proposed project site near the Paradip port in Jagatsinghpur district, Odisha based on the inadequate and fraudulent EIA report.	thermal power plant and other steel plant operations are in variance and therefore, this model may not be applicable in Indian conditions. Further, it may be noted that the proposed Thermal Power Plant utilizes a combination of de-sulpherized fuel gas and coal leading to substantial reduction in pollutants emissions. Thermal Power Plant will also have De-SOX and De-NOX technologies to further reduce the emissions.
3.3	We also demand an independent assessment based on understanding the comprehensive environment and health impacts of the proposed project on the surrounding areas including human settlements to be carried out before proceeding any further.	This is not prescribed in approved ToR.
Reply to Representations dated 27/01/2022 (S. No. 2) of table at para 53.13.27 above		
1.1	The Public hearing not conducted according to stipulated procedures; According to the Community members, the two public hearings conducted on 20 th December 2019 at Gadakujnga by the State Pollution Control Board, Odisha upon the application of JSW Utkal Steels Limited to obtain Environment clearance from the ministry of Environment, Forest and Climate Change did not adhere to the procedure stipulated for obtaining the environment clearance for integrated and interlinked projects. In contrast to what is stipulated under the Office Memorandum (OM) dated 24-12-2010 (No-J-11013/41/2006IA.II (I), it appears that the components of an integrated and inter-linked projects were selectively clubbed and broken up to bypass the detailed scrutiny and comprehensive assessment by all applicable Expert Appraisal Committee (EAC). The OM also mandates holding of the Public Hearing of each component of such an integrated and inter-linked project. Moreover, required information was not made available in the local language. Consequently, the necessary public hearings are required to be re-conducted following due procedure as per the provisions of EIA Notification, 2006.	In line with the guideline of Public Hearing issued by MoEF & CC, a common EIA has to be prepared and public hearing has to be conducted for each of the component of the Project. Accordingly, a common EIA Report and Executive Summary in both Odia and English languages for the interlinked project (ISP and Captive Jetty) was prepared and submitted to the Odisha State Pollution Control Board for the purpose of conducting Public Hearings. Further, all necessary documents were uploaded on OSPCB website for public review. The date of public hearing was announced in the daily newspaper both in Odia and English. The EIA reports were provided to all designated office as prescribed by Odisha State Pollution Control Board. The Public Hearings for ISP and Captive Jetties was conducted on 20.12.2019 at Gada Kujang adjacent to the project site under the Chairmanship of Dist. Collector, Jagatsinghpur as per the provision of EIA Notification. Therefore, the entire public hearing process was conducted as per procedure laid down in the EIA Notification.
1.2	Non-settlement of Forest rights and questionable Forest clearance:	The MoEFCC has already examined the issue for the earlier project proponent prior to the

S No	Concerns	JSW USL's Responses
	<p>As most part of the land sanctioned for the steel plant in Jagatsinghpur district is officially classified as forest land and significant documentary and oral evidence has indicated the presence of forest dwelling Scheduled Tribe (ST) and other traditional forest dwellers in the proposed forest area , it is imperative that the rights and claims of the affected communities under FRA, 2006 are settled and consent of the affected villages via Gram Sabha resolutions is secured before advancing any project. On several occasions in the past, the Gram Sabhas of the affected area have passed majority resolutions against any handover of their lands and community forest resources, which have been routinely disregarded by the Government. Three different official reports i.e. Saxena Committee, the POSCO Enquiry Committee and the Forest Advisory Committee have highlighted the blatant disregard of Gram sabha resolutions and other statutory rights under FRA, 2006 by the State Government. Obtaining the consent of Gram sabha before diverting Forest land is a statutory requirement. Failure to do so will entail liability upon the government under FRA as well as Scheduled Caste and Scheduled Tribes (Prevention of Atrocities Act 1989. Against this backdrop, the accordance of Forest Clearance to JSW by MoEF & CC on 16th October 2019 is highly questionable, and subject to revocation and reconsideration in line with statutory and legal provisions.</p>	<p>grant of final forest clearance dated 4.5.2011 and also FAC examined the same issue prior to allowing the transfer of the forest clearance to JSW USL. The claim is not tenable.</p>
1.3	<p>Water Requirement and source sustainability: According to the EIA Report for the Integrated Steel Plant, power and cement plant prepared by JSW Utkal Steel Limited, water needed for operations is supposed to be brought from Mahanadi River through an 87 km long pipeline- in spite of rising evidence that this river is already water stressed. Environment ministry's K Roy Paul Committee report, which was set up to review the viability of the steel plant and port of M/s POSCO was advised to look for other sources to augment water availability. The Committee had also recommended that a Source Sustainability study of water requirement' be carried out. Respective through information</p>	<p>Based on the recommendation of the K Roy Paul Committee report, the water resource department of the Govt. Of Odisha conducted a detailed water availability study at Jobra Barrage. Based on the report findings, WRD allocated 117.3 Cusecs of water from Jobra Barrage and based on this allocation, the MOFCC accorded the Environmental Clarence to the earlier proponent (POSCO). The water requirement for JSW Utkal Steel is estimated at 98.1 Cusecs of water from Jobra Barrage which is less than the earlier allocation made to POSCO. Hence, the question of sustainable water availability does not arise.</p>

S No	Concerns	JSW USL's Responses
	and analysis is missing in the EIA report of JSW Utkal Steel Limited and therefore remains unclear, from where and how the necessary water supply is supposed to be ensured.	
1.4	<p>Health Issues: The proposed project site is in close vicinity to an already severely polluted area of Paradip and is already impacted by high air pollution levels. Due to the anticipated massive additional emission load of the proposed JSW Utkal Steel Limited, the air quality is expected to deteriorate further, resulting in severe health impacts. As the area is densely populated, air pollutant emissions would cause numerous additional deaths per year., increase cases of asthma as well as preterm births and would cause thousands days.</p>	The replies are given at S. No. 3.1
A	EAC Infra 2 had asked to provide a No Objection Certificate (NOC) from Paradip Port. However, respective information is not provided for in the revised EIA Report by JSW Utkal Steel Limited.	The proposed captive Jetty is beyond the port limit of Paradip Port and therefore, seeking NOC from Paradip Port Trust is not applicable.
B	As numerous recent media reports show, there has been growing and brutal police repression, severely injuring numerous people (including women and children), which made villagers unable to go to their place of work and access livelihood resources. Several complaints of Human Rights violations were already filed in that regard at the Odisha High Court as well as before the National Human Rights Commission. It is commendable to know that the Orissa High Court issued directions to the Home Department and the Jagatsinghpur district administration to submit status report on the matter. It also directed to immediately stop police excesses and ensure villagers free movements to ensure essential provisions.	Three PILs have been filed where the Hon'ble High Court has issued notice to the State Government only in one case. All these PILs have been posted to 31 st January 2022. Filing of PILs does not intervene in the process of grant of EC.
C	Diversion of Forest land and Community resources like trees and Betel vineyards on which villagers, a majority of whom are marginalized groups like Dalits and Adivasis, are directly dependents has thereby negatively impacted their ability to secure adequate food and sustain themselves. Forcible eviction of people is tantamount to depriving them of their means of subsistence and violating their right to adequate food and nutrition.	Half of the government forest land was made encroachment free by paying compensation by the erstwhile project proponent in 2013. To initiate the encroachment removal process for JSW USL project, the district administration has fixed the R &R Compensation vide its proceedings dated 10.11.2021 subsequent to a collaborative discussion with the PRI members and villagers. The betel vine removal process started by the

S No	Concerns	JSW USL's Responses
		district administration in December 2021 after obtaining individual consent from the betel vine owners.
D	<p>The inhabitants of Dhinkia, Gobindpur, Nuagaon, Bayanalkandha, Polang and Nolia Sahi villages have long struggled to secure their lands and livelihood and their situation is likely to worsen if their land, a vital livelihood resource for them, is transferred to JSW Utkal Steel without addressing underlying Human Rights concerns and settling existing legal claims as per statutory procedures. It is extremely important to ensure that their basic human rights, including the right to food and nutrition, are fully realized and restored. India is a state party to the International Covenant on Economic, Social and Cultural Rights under which the right to adequate food is enshrined as fundamental right. The Indian government is thus duty bound to respect, protect and fulfil the obligations deriving from this Covenant.</p>	<p>Besides providing adequate and acceptable R&R Compensation to Betel vine owners, the project proponent provides financial assistance to the left out ration card holder families of the land losing villages. During the village meetings, a concern was raised by the villagers to provide engagement to one member of each ration card holder family to continue with the livelihood resources. In this regard, it was proposed by the project proponent that</p> <ol style="list-style-type: none"> 1. A Door-to-Door survey will be conducted in the land losing villages to identify the eligible persons for engagement. 2. To map the gap and to derive the required level of training. 3. The project proponent would try to provide engagement to the eligible one member of the ration card holder family anywhere in India, in any of its factory/plant, either directly or indirectly, or under any agency or any of the establishment. <p>By this, engagement can be given to the people even prior to commencement of construction.</p>
Reply to Representations dated 26/01/2022 (Sl. No. 3) of table at para 53.13.27 above		
1	Incident dated 08.12.21 & 12.01.2022	Deployment of police is administration's decision to protect villagers. JSW has nothing to comment.
2	Concern on local communities lives and sustainable livelihoods from betel cultivation and prawn culture.	By proceedings dated 10.11.2021, this issue has been vividly dwelt with. This proceeding provides for compensation against betel vine and prawn cultivation, also for list of CSR activities for better standard of living of the people and to ensure livelihood, this proceeding provides for scope of engagement to the ration card holder families. The modus of engagement is described as above.
3	Local Gram Sabhas have not consented to the JSW project in their jurisdiction which is requirement of EC.	EIA Notification for 2006 does not prescribe for any consent in any form of the Gram Panchayat. It only prescribes for conducting the Public Hearing to invite the concern of the people and give a scope to the project proponent to address the same.
4	Violation of Forest Rights Act, which are yet to be granted to the local people and	The issue of the FRA was examined by the MoEFCC prior to the grant of final clearance

S No	Concerns	JSW USL's Responses
	communities merely to facilitate the acquisition of the land for JSW.	vide letter dated 4.5.2011 and further this issue has been examined by FAC prior to allowing transfer of forest clearances. So, this allegation is baseless.
5.	A public hearing was held in Nov, 2021 for the Captive Thermal Power Project, which saw strong protest by the local people.	The public hearing was conducted on 20.12.2019 for the ISP and Captive Jetty. There was no such public hearing in November 2021 as alleged.
Reply to Representations dated 27/01/2022 (Sl. No. 4) of table at para 53.13.27 above		
SIA study for EIA		
1.	The agency STARR (Society for training action research & rehabilitation) that carried the SIA study is not a registered agency	<p>SIA is a prerequisite for acquisition of private land under the Land Acquisition Act 2013 read along with Orissa Rules, 2016. So far as the JSW USL is concerned, the extent of private land is 2.26 acre which will be purchased directly. So, there is no requirement of SIA. However, the Honorable members wanted to know the demographic and socio-economic scenario of the project area for which STARR was engaged. Nonetheless, this is an accredited agency of the Nabakrushna Choudhury Institute to conduct SIA.</p> <p>Subsequent to the issuance of proclamation, Xavier Institute of Management has been asked to carry out the socio-economic survey as warranted under Odisha R & R Policy. The District Collector has approved the agency to do the same.</p>
2.	Photos shown in SIA study report are not from SIA meetings	Information furnished based on the survey conducted among the displaced families.
3.	The meetings with Collector, Tehsildar, BDO, PRI members, Sarpanch, Teachers, etc. mentioned in the study report never took place.	
4.	Demographic details of affected population in the SIA study are contradictory to State data - Annual income report & SS schemes	
5.	Information provided in the SIA report is false.	
Coastal Area Violation		
1.	Encroached the coastal zone & started office with 2 containers & 300-400 police force with temporary camp.	The Containers has been placed beyond the project area. Maintaining law and order situation, is the responsibility of Police administration and the project proponent refrained from commenting on the same.
2.	- Damaged sand dunes & made roads -	False allegation. No construction has been started at site.

S No	Concerns	JSW USL's Responses
3.	Demolished the maximum & larger part of sand dunes	
4.	Cut down the flora & bushes along the coast prior to EC for road construction	
5.	Applicable schedules under EIA 2006 shall be mentioned. PP mentioned Metallurgical industries, Cement Plants, Thermal Power plants, Coke oven plants, ports, harbors, etc. to EDS- These come under Red category as prescribed by MoEFCC – Deliberate omission of this fact in PH	The proposed project is an integrated steel plant where regeneration of power is a mandatory requirement and cement grinding and mixing unit is for utilization solid waste generated within a steel plant. Since steel plant is a complex with multiple units operation like Coke Oven, Sinter Plant, Pellet plant, Blast Furnace, Basic Oxygen Furnace, Lime Calcination Plant, Mills, Power Plant etc. Traditionally, integrated steel plants appraised by EAC Industry-1.
6.	Not taking into consideration of other polluting industries in the area	Cumulative impact assessment is not part of ToR of EIA.
Public Hearing on 20.12.2019		
1.	Allegations of fabricated representations by JSW. Enquiry of allegations	The Public Hearing was conducted in a transparent manner wherein opportunity was given to everyone for expressing their opinion. The complete event has been video-graphed and is available with MoEF. The proceedings have been prepared by the Odisha State Pollution Control Board independently.
2.	False & fabricated written representations machinated by PP sent for EAC	False Allegation
Surface Water		
1.	Final copy of water withdrawal permission pending. PP has not complied to Water dept cess, requisite fees & Form J	The agreement with the Water Resources Department will be executed prior to the drawl of the water.
2.	Huge surface water allocation to PP in the face of Water unavailability, drought like situation in Jagatsinghpur	The water has been allocated by the Department of Water Resources of the Odisha government considering the surface water available at the point of drawl.
Consultative Meetings		
1.	False & Fabricated- Status of R&R	Prior to commencement of encroachment removal activities from the government land, the District Collector initiated the discussion on R &R: Quantum and Scope with all the stakeholders. On 10.11.2021, the first meeting was held at the Collectorate followed by four more meetings at the Panchayat Office of three Gram Panchayats namely, Gadakujanga, Nuagaon & Dinkia. And one more meeting was held in village Gobindpur. The meetings were attended by the villagers, PRI members, the project proponent, local MLA, District Collector & SP. The R &R compensation was
2.	No mention of R & R in the collector's letter, misleading the public	
3.	Invitees were hand picked	
4.	Meeting held on 10.11.21 was failure but the meeting proceedings in support of PP	
5.	No communication on purpose of the meeting dated 10.11.2021.	
6.	List of attendees of 3 panchayat getting affected by the proposed project is questionable.	
7.	Opposed by villagers of 3 panchayat and villages in meeting held on 10.11.21.	

S No	Concerns	JSW USL's Responses
		finalized in the proceedings dated 10.11.2021. This has been widely accepted by villagers and after that people offered their betel vines voluntarily to avail the additional bonus of Rs. 50,000 along with betel vine compensation calculated at the rate of Rs. 17.5 lakh per acre.
Forest Clearance		
1.	Clarification on transfer of FC from POSCO India to JSW Utkal	The final forest clearance was accorded for the erstwhile project of POSCO on 4.5.2011. JSW USL applied for transfer of the forest clearance which was affirmatively recommended by IDCO and the State government to MoEFCC. FAC examined the proposal of JSWUSL and recommended for transfer of the forest clearance. MoEFCC allowed the transfer of forest clearance vide letter dated 16.10.2019 followed by which the reason order was passed by the state Forest Department vide letter dated 30.10.2019. The said order was published in Odia and English Newspapers for wide dissemination.
2.	Or, IDCO to JSW	
3.	Can IDCO be considered as User Agency from 2011 to 2019	
4.	Validity of FC	
5.	Is lease transfer as per 2.8 of FC Act vis-a vis transfer of FC approval as per 5.1 amended FC Act has been considered during transfer of FC	
6.	Why PP in its forms applied to the MoEFCC did not mention about the final FC granted on 30.10.19	
Securing of Land		
7.	Permission for fencing the project site without consultation with REAC	Considering the peculiarity of the site, loose sandy soil and to keep the land free from encroachment, MoEFCC allowed fencing of the site using pre-fabricated structures. This is temporary in nature. No other construction activity has been started at site. No sand dunes have been damaged in the area.
8.	Floating of Tender dated 29.06.21 for Fencing with prefab structures by IDCO before obtaining the permission of MoEFCC.	
9.	Construction activities prior to EC	
10.	Construction of roads by damaging sand dunes	
11.	Violation of OM dated 19.08.2010	
12.	JSW with involvement of police force is forcefully demolishing betel vines	The betel vine owners are voluntarily offering to remove the betel vines to avail the additional bonus and R & R Compensation. There is no involvement of coercion on part of the betel vine owner.
13.	14 th Jan incident	
14.	Police Atrocity	
15.	3 PILs filed in HC where PP is a party	Three PILs have been filed where the Hon'ble High Court has issued notice to the State Government only in one case. All these PILs have been posted to 31 st January 2022. Filing of PILs does not intervene in the process of grant of EC.
16.	Impact on existing drainage system, water bodies & local habitat by elevating apprx 1300 ha upto 6.5 m has not been clarified	Detailed storm water , drainage study has been conducted through DHI and based on the model study Storm water drain network will be constructed for evacuation of storm water even during the cyclone

S No	Concerns	JSW USL's Responses
17.	Presence of wildlife & endangered species to be confirmed by the Forest Dept.	The proposed project area does not witnessed any endangered species (Flora and fauna)
18.	Effect on shoreline erosion & coastal instability	Details shoreline study has been conducted by DHI and the shoreline management plan is included in the Common EIA Report
19	Violation of FRA	The MoEFCC has already examined the issue for the earlier project proponent prior to the grant of final forest clearance dated 4.5.2011 and also FAC examined the same issue prior to allowing the transfer of the forest clearance to JSW USL. The claim is not tenable.
20	Setting up of new project near highly polluted area	The proposed project site is 12 Km SE of Paradip and is not a part of any Severely Polluted area as notified by CPCB. The impact assessment has been carried out, based on the present level of the pollutants in the study area
21	The 3 affected panchayats & more than 50,000 people nearby relying on betel, agriculture, fishing will be affected	JSW will provide the fishing Jetty to the fishing community at the location to be decided by the community. Access to the sea will be ensured.
22	Affecting the livelihood of fishing community	-do-
23	Request for another PH due to modification of EIA/EMP	Public Hearing have been carried out as per the EIA Notification, 2006 based on the draft common EIA Report. The final EIA Report was prepared by incorporating the proceedings of the public hearing and submitted to MoEFCC. Hence the question in unwarranted
24	Approval of HLCA without signing of MoU	There is no practice of signing of MoU after 2012.
Reply to Representations dated 28/11/2021 (Sl. No. 5) of table at para 53.13.27 above		
1.	Seeking information on How permission can be granted for heavy deployment of police and construction work before the grant of EC & no such permission has been reflected on the website	Deployment of police is administration's decision to protect villagers. JSW has nothing to comment.
Reply to Representations dated 22/01/2022 (Sl. No. 8) of table at para 53.13.27 above		
01	Both Industry-1 and Infra-1 EACs would have pressed upon M/s JSW Utkal to carry conduct integrated EIA. Urge not to accept post facto assessments and repeated misuse of the provisions of the EIA notification and award a company disrespectful of the EIA notification with an environmental clearance.	As per the office memorandum dated 24.12.2010 of MoEFCC the respective EAC will consider this sector specific proposal based on the common EIA Report and will make their recommendation relating to that particular component. Accordingly the common EIA Report has been prepared and submitted to MoEFCC
02	Misleading and Incomplete data in Integrated EIA and in response to the EDS details sought by EAC:	The Integrated Steel Plant is not encroaching into the water bodies and this has been confirmed through KML file and the CRZ

S No	Concerns	JSW USL's Responses
	"Water body area is going to be encroached upon by the ISP".	Map duly certified by NCSCM, an nodal agency of MoEFCC
03	<p>Illegality of a Post Facto Integrated EIA: The project proponent has submitted a fresh Form 2 and a completely new integrated EIA report, which is being appraised by the EAC. This is not in consonance with the procedures mandated under the EIA notification, 2006 reiterated through judgments of the Supreme Court (SC). SC has emphasised that the need for an integrated EIA following the issuance of ToR and prior to public hearing (PH).</p>	<p>As per the office memorandum dated 24.12.2010 of MoEFCC the respective EAC will consider this sector specific proposal based on the common EIA Report and will make their recommendation relating to that particular component. Accordingly the common EIA Report has been prepared and submitted to MoEFCC</p>
04	<p>Extraction of water from Jobra Barrage against the caution of environment ministry committee report: K. Roy Paul committee report which had observed that "Therefore, adequacy of the water available for the project needs very close scrutiny. The Committee came to know that the State Water Resources Department has advised POSCO to look for other sources of to augment water availability". Further, the committee had also recommended that a "Source sustainability study of water requirement "be carried out. This has not been done so far.</p>	<p>Based on the recommendation of the K Roy Paul Committee report, the water resource department of the Govt. Of Odisha conducted a detailed water availability study at Jobra Barrage. Based on the report findings, WRD allocated 117.1 Cusecs of water from Jobra Barrage and based on this allocation, the MOFCC accorded the Environmental Clarence to the earlier proponent (POSCO). The water requirement for JSW Utkal Steel is estimated at 98.1 Cusecs of water from Jobra Barrage which is less than the earlier allocation made to POSCO. Hence, the question of sustainable water availability does not arise.</p>
05	<p>Public Hearing dated 20.12.2019 Invalid: First, the document being passed off as an integrated EIA was not available prior to the public hearing. Second, the public hearing was carried on incomplete, false and misleading data which has been repeatedly brought to the notice of the two EACs dealing with different components of this project.</p>	<p>Public hearing (PH) was organized by the OSPCB with the Support of District Magistrate for two Projects of JSW USL viz ISP and captive Jetty at Gadkujang on 20.12.2019. The public hearing was chaired by District Collector, Jagatsinghpur. The PH was conducted as per the procedure laid down in EIA notification 2006 and amendments thereafter. The Common EIA Report as prepared by JSW USL has been received by the board along with the summary for both the projects (in English & local language, Odia). The summary reports in English and local language Odia have been uploaded in the website of OSPCB and were made available at GP offices, Collector's office, BDO office, DIC office and RO Paradeep for the inspection by the general public. The date and the venue of the public hearing was published in one national daily in English i.e. "The Times of India" and one local daily in Odia i.e."Dharitri"30 days prior to the date of public hearing. The Board and District</p>

S No	Concerns	JSW USL's Responses
		Administration had made arrangement of wide publicity of the report as per provisions of EIA notification 2006 and amendment thereafter. The project proponent deliberated about the both projects in details before the public and the questions raised by the public have been answered during the PH, which have been communicated to both MoEF&CC, Govt. of India and the project proponent. The entire public hearing proceedings has been video graphed and submitted to MoEF&CC, Govt. of India.
06	<p>No Objection from Paradip Port: None of the proceedings and information provided by the M/s JSW Utkal indicates that this information has been provided, and therefore the important requirement remains valid and unaddressed.</p>	The proposed captive Jetty is beyond the port limit of Paradip Port and therefore, seeking NOC from Paradip Port Trust is not applicable.

Observations of the Committee held on 27th, 28th and 31st January, 2022

53.13.29 The Committee noted the following:

- i. Terms of Reference for the green field project was accorded on 19/03/2019.
- ii. Proposal for grant of EC was considered by the EAC in its meeting held on 18-19th May, 2021 and 13-14th September, 2021.
- iii. Total land is 1125.284 ha out of which 1069.581 ha land is diverted from forest and rest of 55.703 ha (non-forest land) is allotted by IDCO. Transfer of Stage II FC granted vide letter no. F.No. 8-63/2007-FC dated 16/10/2019.
- iv. As per the communication received from Odisha State Pollution Control Board, the Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English & local language, Odia). The public hearing for the project was conducted as per the procedure prescribed in the EIA Notification, 2006.
- v. There are 142 PAFs and R&R shall be carried out as approved R&R plan.
- vi. There are no water bodies in the project site. Adjacent to site is Jatadhar Mohan River and Mahanga Nadi flows in the study area. Bay of Bengal is 500 m SE.
- vii. There are two sand dunes inside the plant and one adjacent to proposed plant boundary.
- viii. About 30 Million Cum of river bed shall be dredged for navigation of cargo and 27 M Cum of this shall be used to raise the plant site level by 6.5 M. Remaining material and also the material dredged during regular maintenance of the Jetty shall be disposed offshore at sites identified through modelling.
- ix. 1.3 lacs trees are proposed to be removed from the proposed site.
- x. Reason for high fluorine and phenol in sea water has not been given.
- xi. 1500 Nm³/hr water recovered from iron ore slurry shall be discharged into sea. Mechanism for reuse of the said recovered water has not been furnished.
- xii. Shoreline changes shall be studied throughout the project period and suitable measures shall be taken to maintain it as per action plan recommended by NCSCM.

- xiii. On perusal of the KML file, the committee noted that there is patch of forest land exist between the jetty and plant site. The details of the said forest area and its conservation measures have not been submitted by the proponent.
- xiv. On perusal of the plant layout, north eastern portion of the layout is very close to the High Tide Line which needs to be revisited. Further, the sand dunes needs to be indicated on the plant layout.
- xv. Interlock control measures to be provided on dredging machines to maintain turbidity level within limits has not been provided.
- xvi. Land acquisition details for the proposed project as per MoEF&CC Office Memorandum dated 7/10/2014 along with the requisite supporting documents have not been furnished.
- xvii. The EAC deliberated upon the reply furnished by the proponent on the public representations. It is noted that in one of the representations it is stated that project proponent is making roads and the sand dunes exist at the site are being disturbed. The factual status in this regard needs to be obtained from Regional Office of the MoEF&CC.
- xviii. Details of the court cases pending if any consequent upon the submission of application through Parivesh has not been made available.

Recommendations of the Committee 27th, 28th and 31st January, 2022

53.13.30 In view of the foregoing and after deliberations, the Committee deferred the consideration of the proposal and sought following additional information from the proponent for further consideration of the proposal.

- i. Land acquisition details for the proposed project as per MoEF&CC Office Memorandum dated 7/10/2014 along with the requisite supporting documents shall be submitted.
- ii. Revised plant layout indicating the exclusion of north eastern portion situated towards High Tide Line and sand dunes existence.
- iii. There is patch of forest land exist between the jetty and ISP plant site. The details of the said forest area and its conservation measures to be adopted shall be submitted.
- iv. Interlock control measures to be provided on dredging machines to maintain turbidity level within limits has not been provided.
- v. Reason for high fluorine and phenol content in sea water shall be submitted.
- vi. Factual report from Regional Office of the MoEF&CC shall be submitted regarding the construction of roads and disturbance to sand dunes caused if any at the project site, as stated in the public representation dated 27.1.2022, shall be submitted.
- vii. Details of the court cases pending pertaining to the proposal under consideration along with its present status shall be submitted.
- viii. Action plan for reuse of water recovered from iron ore slurry shall be submitted.
- ix. Details of 1.3 lacs trees proposed to be felled down and the compensatory afforestation measures to be adopted shall be submitted.
- x. An undertaking in a non-judicial stamp paper shall be submitted by the proponent stating that no construction activities related to the ISP project will be undertaken in the CRZ area.

53.13.31 The ADS was raised by the Ministry on 04/02/2022 as per the recommendations of EAC. The proponent submitted the reply to the ADS on 07/02/2022 as follows:

S. No.	Additional Detail Sought	Reply																
i.	Land acquisition details for the proposed project as per MoEF&CC Office Memorandum dated 7/10/2014 along with the requisite supporting documents shall be submitted.	<p>1. Land Assessment/Allotment Approval Status: Industrial Promotion & Investment Corporation of Odisha [IPICOL] is a State Level Nodal Agency [SLNA] under Section-8 of Orissa Industries (Facilitation) Act, 2004 by Govt. of Odisha, Industries Department for Industrial Facilitation and Investment Promotion in the State of Odisha. It also functions as the Single Window Agency for clearance of investment proposals. First, the land assessment for the said Mega Project at Jagatsinghpur District was made by MECON and finally, IPIOCL recommended the land requirement for Integrated Steel Plant is 2980 Acres (1205.989 Ha) after due review by the State Level Single Window Clearance Authority (SLSWCA) under the Chairmanship of Chief Secretary. Similarly, Commerce & Transport (Commerce) Department, Government of Odisha was pleased to approve 180 Acres (72.845 Ha) of land for Captive Jetty at Jatadhara Muhan. Thus, the total requirement for both projects approved by IPICOL=3160 Acres [2980+180] = (1278.834 ha).</p> <p>2. Out of total land requirement, the break-up of applied 1193.974 Ha of land is given below;</p> <table border="1"> <thead> <tr> <th>Land</th> <th>For ISP</th> <th>For Jetty</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Forest Govt. Land</td> <td>2642.218 Ac (1069.291 ha) [Including Private Forest land of 2.26 Ac (0.915 ha)]</td> <td>35.582 Ac (14.40 ha)</td> <td>2677.80 Ac (1083.691 ha)</td> </tr> <tr> <td>Non-Forest Govt. Land</td> <td>138.639 Ac (56.106 Ha)</td> <td>133.871 Ac (54.177 Ha)</td> <td>272.51 Ac (110.283 Ha)</td> </tr> <tr> <td>Total</td> <td>2780.855 Ac (1125.397 ha)</td> <td>169.453 (68.577 ha)</td> <td>2950.31 acres (1193.974 ha)</td> </tr> </tbody> </table> <p>3. Forest Land [1083.69 Ha]: The projects include total 1083.69 ha of Forest Land, which has already been diverted i.e. Final Forest Clearance (Stage-II approval) already granted by Government of India, Ministry of Environment and Forests vide their F.No.8-63/2007-FC dated 04.05.2011 for establishment of the same project i.e., the Integrated Steel Plant and Captive Port by the former Project proponent, the POSCO-India Pvt. Ltd.</p> <ul style="list-style-type: none"> - The Diverted Forest Land located in Six Revenue Villages which comprises of Jatadhar RF, Dthinkia-Nuagaon PF, NoliaSahi PF and Revenue Forest. - This includes 0.90 Ha of Tenanted Land which is included in the DLC Report and hence, treated as “Deemed Forest”. - The Forest Land required for the project does not include any National Park, Wildlife Sanctuary or Biosphere Reserve. No archaeological monuments are located inside the proposed area. <p>4. JSW submitted the application for transfer of the already diverted forest land i.e. Stage-II forest clearance on 23.10.2018 in its favour as per provisions laid down in para-2.8 of the FC Act, 1980. The State Govt. recommended the proposal to MoEFCC, GoI on 19.11.2018 which was finally approved by FAC 16.08.2019. MoEFCC, Government of India has accorded the approval for Transfer of FC in</p>	Land	For ISP	For Jetty	Total	Forest Govt. Land	2642.218 Ac (1069.291 ha) [Including Private Forest land of 2.26 Ac (0.915 ha)]	35.582 Ac (14.40 ha)	2677.80 Ac (1083.691 ha)	Non-Forest Govt. Land	138.639 Ac (56.106 Ha)	133.871 Ac (54.177 Ha)	272.51 Ac (110.283 Ha)	Total	2780.855 Ac (1125.397 ha)	169.453 (68.577 ha)	2950.31 acres (1193.974 ha)
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S. No.	Additional Detail Sought	Reply
		<p>favour JSW on 16/10/2019. Copy of Transfer of FC is submitted by PP.</p> <p>5. On 30.10.019, the State Govt. passed the reasoned order [copy is submitted by PP], which has been duly published in two newspapers (Odiya and English) for wide assimilation. JSW has deposited the differential NPV and the transfer fee in CAMPA Account.</p> <p>6. On 03.08.2021, IDCO (Industrial Infrastructure Development Corporation of Odisha), the State Govt's land acquisition agency has filed the requisition for alienation of the 2675.54 Ac (1082.776 Ha) of the diverted forest land/Govt. land to the Tahashildar Erasama (copy is submitted by PP). Accordingly, on 18.08.2021 the land alienation proclamation notice has been issued by the Tahashildar, Erasama (copy is submitted by PP)</p> <p>7. For balance 0.9 Ha, the Private landowners have given their consent to hand over the land for the JSW Project. Copy of the consents are submitted by PP.</p> <p>8. Non-Forest Land [110.283 ha]: JSW has deposited Rs. 14.73 Crores towards land cost/premium and others with IDCO for allotment of sanctioned non-forest Govt. land measuring 105.20 Ha [259.96 Ac] for ISP & Captive Jetty. Copy of tax invoice and money receipt are submitted by PP.</p>
ii.	<p>Revised plant layout indicating the exclusion of north eastern portion situated towards High Tide Line and sand dunes existence.</p>	<p>PP has submitted the layout with blown up portion of northern eastern portion of the layout indicating the facilities outside the CRZ area. The map clearly indicates the property line (in pink colour), CRZ line (in red) and facility line (in yellow) and it is confirmed that no ISP (industrial) facilities are proposed within the CRZ line.</p>
iii.	<p>There is patch of forest land exist between the jetty and ISP plant site. The details of the said forest area and its conservation measures to be adopted shall be submitted.</p>	<p>An area of 209.34 Ac (84.72 Ha) of the non-forest land in two patches (B and C) are located in between the ISP and Jetty, which was leased to the earlier project proponent and later found out to be "forest" as per the status of land as on 25.10.1980 and could not be included in our application for transfer of Forest Clearance earlier. Currently this land is under the IDCO land bank under the ownership of Government of Orissa. The area A is connected to area B and is included in this analysis for completeness.</p> <p>a. The forest areas will remain untouched and separated from ISP & Jetty area by providing 15 m wide buffer area with green belt all around this forest and fenced.</p> <p>b. The area will be conserved in consultation with the local District/Divisional Forest Officer (DFO).</p> <p>c. A detailed provide drainage of water during monsoon, the following measures are planned, and the details are provided by the PP.</p> <p>d. JSWUSL is committed to take up the above conservation measures in this narrow patch of forest land after necessary approval from the Govt. of Odisha.</p>

S. No.	Additional Detail Sought	Reply
		<p>e. Drainage of storm water during rainy season:</p> <p>(i) Area-A: Area A (not included in the earlier transfer as well as in the present transfer) is not affected due to reclamation as the area is freely discharging into the natural creek. This area is a level land and is of uniform elevation. However, if required, local drainage will be provided either as a peripheral drain or as decided as per site conditions.</p> <p>(ii) Area-B: This area is a narrow strip between ISP and Jetty, with varying elevations and is connected to area A with a 12 m wide opening. The average level of this area is 4.5 m CD which is about 2.0 m below the finished level of the ISP & Jetty. Although the area has a natural slope towards the area A (so the creek) which is freely drains into the creek, it is proposed to provide artificial collector drains at certain locations for collection of the storm water and help discharging into ocean.</p> <p>(iii) Area-C: This area opens into the Bay of Bengal. The levels of this area indicate that part of the area is in water. The area has the maximum level towards the Jetty area and slopes towards the sea. Hence, the area would be naturally draining. However, to ensure proper drainage of the area, based on the site condition, artificial collector drains will be provided and be regularly cleaned to keep it functional.</p> <p>f. JSWUSL confirms to provide necessary funds for conservation and drainage of this forest land area.</p>
iv.	<p>Interlock control measures to be provided on dredging machines to maintain turbidity level within limits has not been provided.</p>	<p>The dredging of the marine area will be carried out mainly using the Cutting suction dredger and Trailing suction dredger based on the quality of sand. Currently, all the high-capacity dredgers envisaged to be deployed for the dredging at Jatadharmuhan, are provided with several measure to control turbidity in form of high-capacity suction. In addition, the dredgers are provided with Optical Back Scatter based turbidity sensors.</p> <p>Once the turbidity level reaches the predetermined level which for the present location is set at 600 NTU, the OBS based sensors will through an interlock switch off the dredging pump automatically and the dredge head or the suction head get lifted till the turbidity level gets dispersed and comes under the pre-set permissible value of about 300 NTU or less. Once the turbidity reaches level of 300 NTU or lesser, the dredge pump will be started by the operator based on signals from the sensors on the control panel. As indicated above, Turbidity is further controlled with several new technologies such as using green valves, recycling (part of) overflow water, overflow with a bottom exit, or reducing the overflow and using bottom discharge at disposal area.</p>
v.	<p>Reason for high fluorine and phenol content in sea water shall be submitted.</p>	<p>Phenol</p> <p>The analysis of the marine water quality along the creek and coastal water along Jatadharimuhan is carried out by CSIR, National Institute of Oceanography (NIO), Mumbai. The monitoring of the sea water was carried out in three seasons in 2019.</p> <p>It may please be noted that the concentration of phenol given in the report is expressed in µg/l (micrograms per liter) as per the international practice for water samples [1µg/l is equal to 0.001 milligrams per liter (mg/l)].</p>

S. No.	Additional Detail Sought	Reply										
		<p>The results for phenol contents in the water reported are as below:</p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>January 2019</th> <th>April 2019</th> <th>September 2019</th> <th>Annual</th> </tr> </thead> <tbody> <tr> <td>Phenol (ug/l)</td> <td>11.3-28.3 (17.5)</td> <td>9.8-25.1 (17.4)</td> <td>2.9-16.6 (11.3)</td> <td>2.9-28.3 (15.8)</td> </tr> </tbody> </table> <p>The average concentration (2.9 -28.3 µg/l ~ 0.0029 – 0.0283 mg/l) of phenols is low and does not show seasonal variation. The study also mentions that phenol concentration above 200 µg/l may interfere with the aquatic life.</p> <p>Fluoride Na, K, SO₄, Br, B and F are called conservative elements of the sea water and have constant ratios to Cl and each other, everywhere in the sea. Fluoride is a major component of seawater, being present in the oceans at a concentration of about 1.3 mg/kg at 35% of salinity. The ratio of Fluoride to chlorinity is approximately 6.7 x 10⁻⁵. Thus, when the salinity of the water decreases the Fluorine contents of the water will also reduce.</p> <p>The values of fluoride in surface water sampled at seven locations have varied from 0.15 to 0.46 mg/l in winter, summer, and post monsoon seasons against 1 mg/l drinking water standard. However, the fluoride levels have varied from 1.2mg/l to 2.8mg/l at Mahanadi River (at Paradeep Lock Gate) may be due to discharge of water from number of prawn ponds in the nearby area.</p> <p>The values of fluoride in ground water monitored at eight locations have varied from 0.1 to 0.3 mg/l in winter, summer, and post monsoon seasons against 1 mg/l drinking water standard.</p>	Parameters	January 2019	April 2019	September 2019	Annual	Phenol (ug/l)	11.3-28.3 (17.5)	9.8-25.1 (17.4)	2.9-16.6 (11.3)	2.9-28.3 (15.8)
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Phenol (ug/l)	11.3-28.3 (17.5)	9.8-25.1 (17.4)	2.9-16.6 (11.3)	2.9-28.3 (15.8)								
vi.	<p>Factual report from Regional Office of the MoEF&CC shall be submitted regarding the construction of roads and disturbance to sand dunes caused if any at the project site, as stated in the public representation dated 27.1.2022, shall be submitted.</p>	<p>The Factual report obtained from IRO, Bhubaneshwar on 07/02/2022 after site inspection carried out on 06/02/2022. Observations of RO are given as below:</p> <p>a. Construction of Roads: During the site visit it was noticed that the fencing of the project is being executed by M/s IDCO, Public Sector Undertaking, Government of Odisha since 09/02/2021. So far 800 meters of the boundary wall has been erected. It has been informed by the project authorities, M/s JSW Utkal Steel Limited, that they have obtained permission from Ministry of Environment, Forest & Climate Change vide letter No. J-11015/524/2017-IA. II (I) dated 09/09/2021 for fencing of project site with prefabricated structures for the purpose of protecting the area from encroachment.</p> <p>b. During inspection it was found that soil is spread over the sand for hardening the top surface in the approach to the site. As submitted by the IDCO officials, the prefabricated structures are heavy and cannot be transported by head loaders or manually and to facilitate easy transportation of prefabricated structures to the sites of their fixation, tractors were being used. It was also informed by the project authorities that since the soil in the project site comprises of loose terrain, to facilitate easy movement of the tractors.</p>										

S. No.	Additional Detail Sought	Reply
		<p>c. It is noted that the fencing activity is being carried out in the forest area, diverted for non-forestry activity, for which the project has obtained forest clearance which has been transferred in their name by the Ministry of Environment and Forest, Government of India vide Ministry's letter No.8-63/2007-FC dated 16/10/2019 and by the Forest and Environment Department, Government of Odisha vide letter No.20649/F&E dated 30/10/2019.</p> <p>d. During the visit, no construction of road at site was found.</p> <p>e. Disturbance to sand dunes, caused if any The observation made at site reveals that there are two areas of sand dunes in the project. It was found that the fencing activity which has been undertaken recently in the project area has not caused any disturbance to the existing sand dunes located in the project area.</p>
vii.	Details of the court cases pending pertaining to the proposal under consideration along with its present status shall be submitted.	<p>It may be noted that there is no case has been filed pertaining to the grant of environmental clearance for the proposed project, which is under consideration. However, three PILs have been filed in the pretext of excessive action of the Police. Petition Copy of three PILs are submitted by PP.</p> <p>Broadly the petitioners have prayed for</p> <ol style="list-style-type: none"> 1. Enquire into the police excess action and custodial torture 2. Payment of compensation to the victims 3. Withdrawal of police from Dhinkia 4. Withdraw all fake cases filed against the villagers of Dhinkia 5. Not to acquire the lands and demolitions without following the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2013 6. Proper treatment of the victims and injured persons <p>The current Status of the three PILs are:</p> <ol style="list-style-type: none"> 1. WP (C) 1316 of 2022: Notice is issued to State. DG Police has filed affidavit. Petitioner may file the rejoinder 2. WP (C) 1429 of 2022: The Collector, Jagatsinghpur has been directed to “file a status report regarding the availability of essential commodities and medical facilities for the villagers of Dhinkia and nearby villages. It should also contain the steps taken to maintain law and order in the area in question”. Collector, Jagatsinghpur has the status report. 3. WP (C) 1836 of 2022: This case has been tagged with the earlier two cases. The petitioner can file the rejoinder. <p>All the cases were listed on 31/1/2022 which has now been posted to 16/2/2022.</p>
viii.	Action plan for reuse of water recovered from iron ore slurry shall be submitted.	The proposed project envisages transportation of iron ore from mines near Joda/Koira area to the project location through dedicated slurry pipeline. The slurry will be dewatered, and the concentrated iron ore will be used in pellet plants & others. The water recovered after ore removal will be treated in a water treatment plant to make its quality suitable for use within the steel plant, replacing the freshwater from the river and

S. No.	Additional Detail Sought	Reply
		<p>stored in the reservoir. The quality of water will be suitable for construction activities of plant, dust suppression, greenery development and as makeup water for industrial use.</p> <p>The dewatering of slurry water will be one of the first activity to be implemented in this project. As the construction of the proposed project will be carried out in phases, there will be surplus water available from slurry dewatering, which needs to be used in other applications. However, once some of the major units of the integrated steel plant are commissioned, the surplus water will be utilized within the plant complex.</p> <p>In a similar case at Kalinganagar, BRPL is supplying treated water after slurry dewatering to some of industries as freshwater locally through IDCO, which is acting as the intermediate Govt. agency for coordination. JSW USL has entered an MOU with IDCO for supply/coordination of utilizing the treated surplus water from</p> <p>JSW USL as fresh makeup water to other nearby industries. The cost of entire infrastructure of pumping and pipelines will be borne by JSW USL. This will ensure full and complete utilization of surplus water. The MOU with IDCO is submitted by PP.</p>
ix.	<p>Details of 1.3 lacs trees proposed to be felled down and the compensatory afforestation measures to be adopted shall be submitted.</p>	<p>✓ As per the Forest Diversion Proposal accorded by MoEFCC, remaining 1.3 lacs trees are Casuarina Forest having girth less than 30 cm.</p> <p>✓ The canopy density of the forest land: 0.097</p> <p>✓ The forest diversion proposal was granted on the ground that “The tree cutting would have minimal impact on the eco system as the project is going to create more greenery through its Green Belts, Compensatory Afforestation and other plantation activities.”</p> <p>✓ Same was concurred by Hon’ble Supreme Court of India.</p> <p>✓ For the establishment of the project the entire forest growth (trees) has to be removed for the following reasons;</p> <ul style="list-style-type: none"> ○ The area will be elevated from the existing 2.5 ~4.5 meter from CD to 6.5m from CD. The area needs to be cleaned prior to commencement of the engineered disposal of the dredged material. ○ Being a steel plant, the project proponent is duty bound to create and maintain green belt. This green belt scheme is prepared by local Forest officer under the supervision of the DFO keeping the climatic, edaphic, biotic and anthropogenic factors into consideration. ○ Rehabilitation and periphery development advisory committee (RPDAC) in its Second Resolution has recommended “a percentage of sale proceed of the standing trees of forest species within the project area shall be earmarked for the people of those villages who have been guiding the said planation”. <p>Compensatory Afforestation and Its Implementation Status:</p> <p>✓ CA area of 1286.082 Ha which has been mutated in favor of the State Forest Department. Out of 1110.782 ha, plantation done over 745.0 ha in Cuttack FD and out of 175.30 ha, the plantation been done over</p>

S. No.	Additional Detail Sought	Reply
		<p>81.94 ha of CA land in Rajnagar FD as was reported by the respective DFOs. [~75% completed]</p> <p>✓169.535 Ha of Diverted Forest area to be returned to Forest Department after plantation with native species at the cost of the new user agency.</p> <p>✓Green belt on 33% of project area i.e. over 394.1 Ha (~ 9 Lac trees planed)</p> <p>✓Total Greenery Development: - 1850 Ha.</p>
x.	An undertaking in a non-juridical stamp paper shall be submitted by the proponent stating that no construction activities related to the ISP project will be undertaken in the CRZ area.	The affidavit as directed has been submitted in non-judicial stamp vide Certificate No. N 645296 dated 04/02/2022.

53.13.32 During this period, EAC and Ministry was in receipt of following representations:

S No	Date	Representation
1	09/02/2022	<ul style="list-style-type: none"> • Not given enough scope and time to represent their replies to the queries along with its relevant information. However, the project proponent JSW Utkal Steel Ltd. has replied to the EDS sought by the Hon'ble committee meanwhile which has not been reflected in the website project status, until been tracked through Timeline Details of the project which mentions to be on 11/02/2022. • Therefore, humbly beg not to partially (ex parte) consider the replies as provided by the project proponent and grant the EC rather request to provide us some time to produce the relevant documents in support of the irregularities done by the project proponent (JSW) as well as the Odisha State Govt.
2	10/02/2022	<ul style="list-style-type: none"> • Large number trees have been cut by the project proponent even before the approval from the Forest Department and grant of EC, which is strict violation of EIA Notification 2006 and FC Act 1980. • Many trees and shrubs have been uprooted by using JSB machines and back filled to hide the existence of those trees and shrubs. • Sand dunes have been demolished and the extra sand has been illegally transported to wipe off its existence.

		<ul style="list-style-type: none"> • Work at night with huge sound and lights are affecting the forest habitat animals. <p>Further, representative requested to the Ministry for:</p> <ul style="list-style-type: none"> • To instruct the Regional Office of MoEF&CC, Bhubaneswar for an impartial enquiry which only can be achieved if can be accompanied by 3rd parties mostly of intellectuals and people working to safeguard the Environment & Forest. • The entire process of collecting the factual report by the regional office should be video-graphed. • The factual report should be inquired and reported by a committee of more than one member from the regional office, MoEF&CC not by only one member. • To include villagers of affected Dthinkia village who should accompany the committee free from fear from police should be ensured by the committee.
3	11/02/2021	<ul style="list-style-type: none"> • In the land acquisition process, the State Govt. Land acquisition agency has submitted to the Tehsildar, Erasama for requisition for alienation of 2675.54 Acres (1082.776 ha). In this regard tehsildar, Erasama the land alienation proclamation notice has been issued. But the Govt. of Odisha was not complied the objection and complaints for land alienation as per The Orissa Government Land Settlement Rules, 1983. • Regarding the matter of land acquisition by the State, most of the consent had been obtained either by threatening using the police force after the incident of 14/01/2022 or by physical torture and a few who are not aware of what they have signed for due to being illiterate. • As regarding the factual report asked by the Hon'ble committee, one letter of representation has been physically provided on dated 07/02/2022 requesting for an open enquiry to be video graphed. However, as per the ADS replies regarding the mentioned enquiry report it was done in presence of the officials “whose role were in question” and were present and accompanied by making the inquiry an eyewash. • One MoU has been executed between IDCO & JSW Utkal Steel Ltd on dated 07/02/2022 regarding surplus treated water recovered from iron slurry is not accordance to safeguard the Environment. Due to such desperation by both State and the PP the innocent people are getting affected. • High fluorine and phenol content in sea water and PP did not replay adequately. • Afforestation plan as provided by the PP which are on different locations of the proposed project site even outside the district and nowhere nearer to the project area hence doesn't add any value to the cause.

53.13.33 Based on the aforementioned reply, the proposal is considered in 53rd meeting of Reconstituted Expert Appraisal Committee (Industry-1) held on 10-11th February, 2022. The observations and recommendations of EAC is given as below:

Observations of the Committee

53.13.34 The Committee noted the following:

- i. Terms of Reference for the green field project was accorded on 19/03/2019.
- ii. Proposal for grant of EC was considered by the EAC in its meeting held on 18-19th May, 2021, 13-14th September, 2021 and 27-28th January, 2022.
- iii. Total land is 1125.284 ha out of which 1069.581 ha land is diverted from forest and rest of 55.703 ha (non-forest land) is allotted by IDCO. Transfer of Stage II FC granted vide letter no. F.No. 8-63/2007-FC dated 16/10/2019.
- iv. As per the communication received from Odisha State Pollution Control Board, the Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English & local language, Odia). The public hearing for the project was conducted as per the procedure prescribed in the EIA Notification, 2006.
- v. There are 142 PAFs and, therefore, R&R shall be carried out as approved R&R plan.
- vi. There are no water bodies in the project site. Adjacent to site is Jatadhar Mohan River and Mahanga Nadi flows in the study area. Bay of Bengal is 500 m SE.
- vii. There are two sand dunes inside the plant and one adjacent to proposed plant boundary.
- viii. About 30 Million Cum of river bed shall be dredged for navigation of cargo and 27 M Cum of this shall be used to raise the plant site level by 6.5 M. Remaining material and also the material dredged during regular maintenance of the Jetty shall be disposed offshore at sites identified through modelling.
- ix. 1.3 lacs trees are proposed to be felled from the proposed site.
- x. As per the records made available, no industrial activity is proposed in CRZ area.
- xi. An area of 209.34 Ac (84.72 Ha) of the forest land in two patches (B and C) are located in between the ISP and Jetty. Currently this land is under the IDCO land bank under the ownership of Government of Orissa. The said forest area will remain untouched and separated from ISP & Jetty area by providing 15 m wide buffer area with green belt all around this forest and fenced. The area will be conserved in consultation with the local District/Divisional Forest Officer (DFO).
- xii. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.
- xiii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.
- xiv. The EAC noted that the additional submission submitted through PARIVESH by the project proponent is found to be satisfactory.
- xv. The EAC noted that they are in receipt of 14 representations and PP has submitted point wise reply to the said representations. Further, the Committee also noted that another 3 representations have been received by the EAC during 9-10th Feb, 2022. The issues stated in the said representations are found to be repetitive in nature. As

per the IRO report dated 7/02/2022, submitted by the PP, the fencing of the project is being executed by M/s IDCO, Public Sector Undertaking, Government of Odisha since 09/02/2021. So far 800 meters of the boundary wall has been erected. During the visit, no construction of road at site was found. The fencing activity has not caused any disturbance to the existing sand dunes located in the project area.

Recommendations of the Committee

53.13.35 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under provision of EIA Notification, 2006 subject to the stipulation of 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. The project proponent shall abide by all orders and judicial pronouncements, made from time to time by the Hon'ble High Court in WP (C) 1316 of 2022, WP (C) 1429 of 2022 and WP (C) 1836 of 2022.
- ii. PP shall not construct any ISP facility on north-eastern portion of High Tide Line and sand dunes in the vicinity of the project site.
- iii. Sand dunes in the vicinity of the project measuring 11.53 ha shall be preserved and maintained by PP. Plantation on sand dunes shall be done only with indigenous and suitable species.
- iv. Prior CRZ clearance for the activities/ facilities to be located in the CRZ area shall be obtained. prior to start of work.
- v. An area of 209.34 Ac (84.72 Ha) of the forest land in two patches (B and C) are located in between the ISP and Jetty. The said forest area will remain untouched and separated from ISP & Jetty area by providing 15 m wide buffer area with green belt all around this forest and fenced. The area will be conserved in consultation with the Divisional Forest Officer (DFO) of the State Forest Department. Proper provision of storm water drainage from these forest patches shall be made and maintained by PP.
- vi. Area drainage system will be prepared and implemented to ensure that the ecology of the area is not disturbed.
- vii. No filling and raising of land beyond 2950.10 acres (constituting 973.533 acres for green belt) shall be permitted.
- viii. During raising of the level of plant and Jetty side by filling with dredged material, project proponent shall ensure that at no point in time during implementation of this activity, the slurry is allowed to escape to drains and contaminate water bodies leading to sea. Local material with geomats shall be used to raise the bund around the site for land filling with dredged material.
- ix. The excess dredged material shall be stored at a place designated for the purpose.
- x. A Conservation Cell shall be constituted by the project proponent comprising of an Ecologist and a Marine Biologist as part of Environment Management Cell. Further, an Advisory Committee consisting of one Expert from National Institute of Oceanography (NIO), representative of Regional Office of SPCB, an environmental expert and experts from any National Institute/ University shall also be constituted by the proponent. The Ecologist of the conservation cell shall act as the Member Secretary of the committee. The committee shall be reconstituted once in three years and should meet at least twice a year. The committee shall be chaired by the seniormost expert

member. The committee can co-opt other subject specific Experts, if required. The function of the committee is to assess and monitor the status and functioning of various ecosystems on a continuous basis and advise the conservation cell for sustainable management of the ecosystems. The conservation cell and the committee should be put in place during development phase of the project itself and continue to operate till the life of the project. Among other activities, the Cell will be carrying out continuous monitoring of coast line and its ecology shall be carried out. Shoreline changes shall be studied throughout the project period and suitable measures shall be taken to maintain it as per action plan recommended by NCSCM.

- xi. Two level Interlock control measures one the higher level, where all dredging operations will be stalled and the other the lower limit at which the dredging operations will start, shall be provided on dredging machines to maintain turbidity level in the river bed/sea within the limits.
- xii. Fluorine and phenol levels shall be measured quarterly and report submitted to Regional Office of the MoEF&CC.
- xiii. Environmental monitoring program for marine water quality, sediment quality and ecology monitoring shall be initiated two weeks prior to startup of dredging activity and shall be continued throughout the project life.
- xiv. 223200 KLD water shall be sourced from upstream of Jobra barrage at Mahanadi river, 87 km from the site. No Ground water shall be abstracted.
- xv. Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized in construction and supplied to IDCO as per MOU between IDCO and PP.
- xvi. Compensatory afforestation shall be done in consultation with DFO for the 1.3 lakhs trees going to be removed from the project site as per rules.
- xvii. No construction activities related to the ISP project shall be undertaken in the CRZ area.
- xviii. Two streams passing through the plot shall be diverted and merged with the peripheral drain designed to carry cyclonic run off.
- xix. A water reservoir of 855000 Cum with impervious lining shall be constructed inside the works.
- xx. Blast Furnace Gas and Coke Oven Gas shall be cleaned and used as fuel in Pellet plant.
- xxi. Power recovery from Sinter Cooler waste heat shall be carried out to generate low pressure steam for use in the plant.
- xxii. MEROS or equivalent technology shall be installed to control dioxins and furan emissions from the Sinter plant.
- xxiii. Top Recovery Turbine, Dry Gas Cleaning and Stove gas waste heat recovery systems shall be installed in BF.
- xxiv. 60% Hot charging shall be practiced for direct rolling of slabs and 85 % for billets.
- xxv. Reverse Osmosis rejects shall be treated and at no point discharged into sea.
- xxvi. Cold Rolling Mill shall have its independent ETP. Hazardous waste generated in CRM shall be sent to TSDF and oily waste shall be sent to registered recyclers. Acid Recovery Plant shall be provided in CRM.
- xxvii. Covered sheds and toe walls shall be provided for raw material storage to check any attrition of raw materials. Storage sheds shall have garland drains, material traps and shall be built on concrete platforms.
- xxviii. Green belt shall be developed in 372 ha of the plant area with a tree density of 2500 trees per ha. Plantation shall be completed in 3 years followed by gap filling in the next two years.
- xxix. On full load operation, there shall not be any discharge of plant effluent water into sea other than that of once through cooling water system.

- xxx. Maximum 130000 cum/Hr. water shall be drawn for once through cooling. The effluent from once through cooling system conforming to the prescribed standards only shall be discharged into the sea 2.25 km away from the shore. The temperature of the discharged effluents shall not exceed 5^oC over and above the ambient water temperature of sea. The temperature of the discharged water shall be monitored continuously and records maintained
- xxxi. Plant run off water shall be treated for removal of Total Suspended Solids and Oil and Grease.
- xxxii. 1905 m³/hr waste water shall be generated from the plant, the same shall be treated and recycled maintaining ZLD status of the plant.
- xxxiii. Blast Furnace gas shall be used for slag dryer.
- xxxiv. Leachate from intermediate Hazardous Waste storage areas shall be treated in CRM ETP.
- xxxv. PP shall install Coke Dry Quenching in Coke Oven Plant.
- xxxvi. Coke Oven Gas shall be desulfurized, Dry FGD shall be used in CPP for SO₂ control and Low NO_x burners shall be used with 3 stage combustion and recirculation of flue gases.
- xxxvii. BFG and BOF gas shall be dry cleaned to have PM less than 10 mg/Nm³, Sinter Plant chimney shall have PM less than 5 mg/Nm³
- xxxviii. Bag Houses shall be designed as per ACGIH recommendations to maintain PM emissions less than 30 mg/Nm³.
- xxxix. Hot air dryer for slag drying shall use BF gas as fuel
- xl. 100% solid waste utilization measures following state-of-the-art technologies for recovery and recycling of various wastes generated within the plant premises shall be adopted:
 - i. Micro-pellet plant for the dust & sludge collected from air and water pollution control systems.
 - ii. Rolling Mill scale briquetting plant for high Fe containing sludge and dust from Mills.
 - iii. Waste-to-wealth plant for the dust & sludge containing low Fe values through beneficiation.
 - iv. Steam Box technology for SMS slag ageing to make it suitable for use as aggregate in road making.
 - v. Slag sand plant shall be installed for converting steel slag to sand for sale.
 - vi. LHF slag briquetting plant for production of briquettes to replace imported synthetic slag.
 - vii. Manufacture of powdered steel slag fines for use in land reclamation and soil conditioning.
 - viii. Carbon recovery shall be done from BF dust, BF GCP dust for recycling to pellet plant.
- xli. Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- xlii. PP shall provide access to the fisherman for fishing and take all other measures essential for their sustainable livelihood as committed during the public hearing.
- xliii. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.
- xliv. All stock piles shall be constructed over impervious soil and garland drains with catch pits to trap run off material shall be provided.

- xlv. 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.

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. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in 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 as amended from time to time;
- 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. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vii. Treated water from ETP of COBP shall not be used for coke quenching.
- viii. 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 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.

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

- iv. 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.
- v. 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.
- vi. 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 report 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, NO_x (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. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

ANNEXURE –1

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

1. **Executive Summary**
2. **Introduction**
 - i. Details of the EIA Consultant including NABET accreditation
 - ii. Information about the project proponent
 - iii. Importance and benefits of the project
3. **Project Description**
 - i. Cost of project and time of completion.
 - ii. Products with capacities for the proposed project.
 - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other chemicals and materials required with quantities and storage capacities
 - vi. Details of Emission, effluents, hazardous waste generation and their management.
 - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man/power requirement (regular and contract)
 - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
 - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
 - x. Hazard identification and details of proposed safety systems.
 - xi. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA/EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005/2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. **Site Details**
 - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco/sensitive areas and environmentally sensitive places)
- iii. Co/ordinates (lat/long) of all four corners of the site.
- iv. Google map/Earth downloaded of the project site.
- v. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- vii. Landuse break/up of total land of the project site (identified and acquired), government/private / agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- ix. Geological features and Geo/hydrological status of the study area shall be included.
- x. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xii. R&R details in respect of land in line with state Government policy.

5. **Forest and wildlife related issues (if applicable):**

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis/à/vis the project location and the recommendations or comments of the Chief Wildlife Warden/thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site/specific micro/meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre/dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 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.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. 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. If Schedule/I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio/economic status of the study area.

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site/specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail/cum road transport or conveyor/cum/rail transport shall be examined.

- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste/minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post/project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man/made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre/designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre/placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. Corporate Environment Policy

- i. 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.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non/compliances / violations of environmental 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
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22/65/2017/IA.III dated 30/09/2020 shall be complied.
12. 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.
13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA/EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA/EMP Report.
- vi. The index of the final EIA/EMP report must indicate the specific chapter and page no. of the EIA/EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J/11013/41/2006/IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the

Consultant and the Accreditation details shall be posted on the EIA/EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA/EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA/EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district/wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA/EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time/schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

ANNEXURE/2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental 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 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.
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 especially 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.

ADDITIONAL ToRs FOR PELLET PLANT

1. Iron ore/coal linkage documents along with the status of environmental 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. 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.
4. 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.
5. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
6. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

ADDITIONAL ToRs FOR CEMENT INDUSTRY

1. Limestone and coal linkage documents along with the status of environmental 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 CREP guidelines must 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. Trace metals in waste material especially slag.

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

- i. A note on pulp washing system capable of handling wood pulp shall be included.
- ii. 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
- iii. 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.
- iv. 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.
- v. 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.

ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY

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.

ADDITIONAL ToRs FOR COKE OVEN PLANT

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.

ADDITIONAL ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from techno/environmental angle should be furnished
3. 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
4. Technology adopted, flow chart, process description and layout marking areas of potential environmental impacts
5. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
6. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environmental status.
7. In case of expansion project asbestos fibre to be measured at slack emission and work zone area, besides base line air quality.
8. In case of green field project asbestos fibre to be measured at ambient air.

ADDITIONAL ToRs FOR METALLURGICAL INDUSTRY (FERROUS AND NON/FERROUS)

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Emission from sulphuric acid plant and sulphur muck management.
3. Details on installation of Continuous Emission Monitoring System with recording with proper calibration system
4. Details on toxic metals including fluoride emissions
5. Details on stack height.
6. Details on ash disposal and management
7. Complete process flow diagram describing process of lead/zinc/copper/ aluminium, *etc.*
8. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
9. Details on Holding and de/gassing of molten metal from primary and secondary aluminium, materials pre/treatment, and from melting and smelting of secondary aluminium
10. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
11. Trace metals in waste material especially slag.
12. Plan for trace metal recovery
13. Trace metals in water

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, within 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

Email

Sundar Ramanathan

Re: CONSOLIDATED DRAFT MOM OF 53 EAC HELD ON 10-11 FEB 2022

From : cnpandey@iitgn.ac.in

Thu, Feb 17, 2022 06:03 PM

Subject : Re: CONSOLIDATED DRAFT MOM OF 53 EAC HELD
ON 10-11 FEB 2022

 1 attachment

To : Sundar Ramanathan <r.sundar@nic.in>

Dear Mr Sundar,

The approved MoM for the 53rd EAC meeting held on 10th and 11 February, 2022 is attached herewith. Please take further necessary action for uploading this Mom on the MoEFCC portal Parivesh.

My sincere thanks to you for your hard work.

With warm regards,

C. N. Pandey,

Chairman, EAC, (Industry I), MoEFCC,

GoI.