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

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Dated: 10.06.2023

Date of Zero Draft MoM sent to EAC: 07.06.2023
Approval by Chairman:10.06.2023
Uploading on PARIVESH:10.06.2023

MINUTES OF THE 36TH EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON 7TH JUNE, 2023

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

Time: **10:30 AM onwards**

DAY: JUNE 7, 2023 [WEDNESDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

Details of the proposals considered during the 36th meeting conducted through Video Conferencing, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

Consideration of Environmental Clearance Proposals

Agenda No. 36.1

36.1 Expansion of Existing Cement Grinding Unit from 2.4 to 4.0 MTPA by M/s. Ambuja Cements Limited (Unit: Sankrail), located at Village- Jala Dhulagori, Tehsil-Sankrail, District-Howrah, West Bengal-Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/415375/2023, File No. IA-J-11011/547/2010-IA-II(IND-I)]
[Consultant: M/s Ecomen Laboratories Pvt. Ltd.; Valid upto 21.09.2023]

36.1.1 M/s Ambuja Cements Limited has made an online application vide proposal no. IA/WB/IND1/415375/2023 dated 27.05.2023 along with copy of EIA report and Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "B" of the schedule of the EIA Notification, 2006 and attracts general condition due to Critically Polluted Areas of Jalan Industrial Complex-I (Howrah) located about 3.07 km from the plant boundary and therefore being appraised at Central Level.

36.1.2 Name of the EIA consultant: M/s. Ecomen Laboratories Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0203; valid upto 21.09.2023, as on June 5, 2023].

Details submitted by Project proponent

36.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
14.02.2022	Standard Terms of Reference issued	Terms of Reference	15.02.2022	14.02.2026

36.1.4 The project of M/s Ambuja Cements Limited (Unit: Sankrail) located in Village- Jala Dhulagori, Tehsil- Sankrail, District- Howrah, State- West Bengal is for expansion of existing Cement Grinding Unit from 2.4 to 4.0 MTPA.

36.1.5 Environmental Site Settings:

S.No.	Particulars	Details	Remarks
i.	Total land	32.64 ha [Private land]	Land use: Plant:- 12 Rail, Road, Infrastructure incl. open area:- 9.87

S.No.	Particulars	Details	Remarks
			Greenbelt/ plantation:- 10.77
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total area available with the ACL at Sankrail unit is 32.64 ha. Out of the total area existing Plant is located in 18.36 ha. Rest of the 14.28 ha has been proposed for said expansion. Land is already with ACL proposed expansion shall be done within the existing premises	
iii.	Existence of habitation & involvement of R&R, if any.	R&R is not applicable.	
iv.	Latitude and Longitude of the project site	Latitude (North):- From 22^0 33'52.81" To 22^0 34' 27.41" Longitude (East):- From 88^0 11' 29.89" To 88^0 11' 44.97"	
v.	Elevation of the project site	2m AMSL to 5m AMSL	
vi.	Involvement of Forest land if any.	No forest land involved	
vii.	Water body exists within the project site as well as study area	No water body exist within project Site. Water body exists within the Buffer Zone Are: - Hooghly River, 4.0 KM, ESE Barajala Drainage, 0.2 KM, S Sarenga Nallah, 4.7 KM, SSE	
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary / biosphere reserve/tiger reserve /elephant reserve etc. if any within the study area	NIL	

36.1.6 The existing project was accorded environmental clearance vide file no. J-11011/547/2010-IA II (I) dated 23.06.2011. Consent to Operate for the existing unit was accorded by State Pollution Control Board vide letter. no. C0128916 dated 12.02.2020 and valid up to 30.04.2024.

Sl. No.	Permission	Ref. No.	Date	Facility	Capacity (MTPA)
1.	NOC	2339-50/WPB-NOC/ 105/99	29.12.1999	Cement [PPC, OPC & Various Grades]	1
2.	NOC	EN/54/T-II-I/115/2007	07.01.2008		1.5
3.	EC	J-11011/547/2010-IA-II (I)	23.06.2011		2.4

36.1.7 Implementation status of the existing EC:

S.no	Facilities	Units	As Per EC dated 23.06.2011	Implementation status	Production as per CTO
1	Cement [PPC, OPC & Various Grades]	1	Plant currently producing 2.4 MTPA Cement [PPC, OPC & Various Grade]	Plant currently producing 2.4 MTPA Cement [PPC, OPC & Various Grade]	Plant currently producing 2.4 MTPA Cement [PPC, OPC & Various Grade]

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

S.No.	Plant Equipment/ Facility	Existing Units	Proposed Units	Total (Existing +Proposed)
		Production MTPA	Production MTPA	Production MTPA
1.	Cement Grinding Unit	2.4	1.6	4.0

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

Name of Raw Material	Existing Unit (MTPA) dry basis (2.4 MTPA)	Proposed Expansion (MTPA) dry basis (1.6 MTPA)	Total After Expansion (MTPA) dry basis (4.0 MTPA)	Source	Distance & Mode of Transportation
Clinker	1.464	0.68	2.144	ACL, Bhatapara	Max. distance 850 Km Transport by Rail and Road
Fly ash (DFA/CFA)	0.828	0.48	1.308	Kolaghat, Haldia, Durgapur & Budge Budge, Maithon, IB-Thermal, Godda, BkTPS	Max. distance 521 km, Transport by Road, Rail and Waterways
Gypsum	0.108	0.072	0.18	Paradeep& Haldia	Max. distance 450 km,

					Transport by Rail & waterways.
Slag	-	0.368	0.368	Durgapur, Kharagpur, Jamshedpur & Kalinganagar	Max. distance 365 Km, Transport by Road & Rail

36.1.10 The Existing Water requirement is 280 m^3/day, water requirement is obtained from West Bengal Ground Water Resources and permission for the same has been obtained from West Bengal Ground Water Resources vides Permit no. P060900201074000001TLE dated 21.06.2011 and vide Permit no. P06090020196300000001TSE dated 13.02.2012. The water requirement for the proposed project is estimated as approx. 130 m^3 /day, out of which 90 m^3/day of fresh water requirement will be obtained from the West Bengal Ground Water Resources and the remaining requirement of 38 m^3 /day will be met from the recycled water. The permission for drawl of groundwater water is obtained from West Bengal Ground Water Resources Vide Permit no. P060900201074000001TLE dated 21.06.2011 and vide Permit no. P06090020196300000001TSE dated 13.02.2012.

36.1.11 The Power requirement for existing unit is 13 MW. Power requirement for the proposed project is estimated be 18.5 MW. Total power requirement after expansion will be 31.5 MW. Power will be sourced from West Bengal Power Development Corporation (WBPDCL).

36.1.12 Baseline Environmental Studies:

Period	1st March 2022 to 31st May 2022	Additional study from 01.04.2023 to 30.04.2023
AAQ parameters at eight locations	• PM_{10} - 45.8 to 117.8 µg/m^3 • $PM_{2.5}$ - 17.7 to 58.0 µg/m^3 • SO_2 - 5.7 to 14.9 µg/m^3 • NO_2 - 9.1 to 27.3 µg/m^3 • CO - 0.25 to 0.78 mg/m^3	• PM_{10} - 68.36 to 115.24 µg/m^3 • $PM_{2.5}$ - 34.02 to 55.72 µg/m^3 • SO_2 - 6.27 to 14.56 µg/m^3 • NO_2 - 10.90 to 26.34 µg/m^3
AAQ parameters µg/m^3 (Incremental GLC)	• PM_{10} - 5.94 µg/m^3 within project site • $PM_{2.5}$ - 3.27 µg/m^3 within project site	-
Ground water quality at 8 locations	• pH - 7.23-7.53 • Chloride- 72 – 652 (mg/l) • Fluoride- 0.3-0.6(mg/l) • Hardness- 280 to 568 (mg/l)	• pH - 7.18-7.73 • Chloride- 34-178 (mg/l) • Fluoride- 0.34-0.54 (mg/l) • Hardness- 180-412 (mg/l)
Surface water quality at 3 locations	• pH – 6.83-7.09 • DO – 6.7-7.4 (mg/l) • BOD- 2.6-6.2 (mg/l)	• pH - 7.42-8.01 • DO – 7.6-8.6 (mg/l) • BOD- 1.2-3.8 (mg/l)

<table>
<tr><td>Noise levels</td><td>The Leq during Day time at project site is 57.58 dB(A) and night time 44.21 dB(A)</td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at Munsirhat-Sankrail Road which is near from the plant site.
Most of the raw materials will be transported through the rail except dry fly ash which will be transported through road in closed bulkers. Since cement market in local/surrounding districts, hence about 80% of the finished product (cement) shall be transported through road in covered trucks and 20% by rail.

<table>
<tr><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>Traffic Load Study Period</td><td>March’2022 (One Day)</td><td></td></tr>
<tr><td>Traffic Load (Baseline) (P CU/Day)</td><td>2485 PCU/Day Approx</td><td>Two Way</td></tr>
<tr><td>Additional Traffic Load D uring Operation
of The Expansion Project (PCU/Day)</td><td>1673 PCU/Day)</td><td>Two Way</td></tr>
<tr><td>Total Traffic Load During Operation of Existing and Proposed Expansion (PCU/Day)</td><td>4158 PCU/Day</td><td>Two Way</td></tr>
<tr><td>Traffic Capacity as Per the IRC 73: 1980 For Highway s (PCU/Day)</td><td>As Per IRC: 64
1990 Recommended Des ign Service Volumes For
2 Lane Rural
Roads of Plain Terrain Is
15000 PCU /Day.</td><td>Two Way</td></tr>
</table>

Conclusion: The current load on the Munsirhat-Sankrail Road is estimated to be 2485 PCU which is far below the service value of 15000 PCU/day. The additional PCU load to be added on this road due to proposed expansion will be 1673 PCU. Total load after expansion of ACL project will be 4158 PCU which is far below the carrying capacity of the road and adequate to bear the increased traffic load due to proposed expansion.</td></tr>
<tr><td>Flora and fauna</td><td>No threatened, rare, endangered or endemic species were observed during the survey in core zone.</td></tr>
</table>

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

S. No	Type of waste	Quantity in TPA	Source	Disposal

1	Sewage sludge	146	STP Plant	will be used as manure in greenbelt development plantation
2	Used battery	2.5	From Site	Authorized Recycler
3	Domestic waste (kitchen & canteen)	10	From Kitchen and other areas	Collected, segregated and disposed of scientifically in compliance of Solid Waste Management Rules, 2016.
4	E-waste	1	From Site	Authorized Recycler
5	Dust from APCD and other material handling areas	0	APCD	Reused in Process

36.1.14 Public Consultation:

Details of advertisement given	Notice made through advertisement in the Newspapers Millenium Post (English) and Aajkall (Bengali) on dated 26-09-2022
Date of public consultation	03.11.2022
Venue	Sonar Bangla Banquets, Bombay Road, Poly Park, Dhulagori, District Howrah, West Bengal
Presiding Officer	Additional District Magistrate, Howrah
Major issues raised	Key issues are the employment, pollution control measures, development work in the surrounding area, Traffic congestion and training to farmers on the agriculture practices etc.

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

S. No.	Activities	Year – 1 (in Crore)	Year – 2 (in Crore)	Year – 3 (in Crore)	Total (in Crore)
1	Social welfare measures for women development, youth development training in the nearby villages namely Chaturbhujkati, Mahisgot and Bhagabatipur	0.45	0.45	0.45	**1.35**
2	Infrastructure development for Drinking Water Supply, Sanitation, Health for BPL families, Skill Development nearby villages namely Chaturbhujkati, Mahisgot and Bhagabatipur	0.75	0.75	0.75	**2.25**
3	School infrastructure, facilities and support for	1.0	1.0	1.0	**3.0**

	furniture, etc nearby villages namely Chaturbhujkati, Mahisgot and Bhagabatipur				
4	Establishing sanitation, solar lighting system and drainage system in nearby villages namely Chaturbhujkati, Mahisgot and Bhagabatipur	0.36	0.36	0.36	**1.08**
5	Purchase of tractors to be used for the near village road	0.10	0.10	0.10	**0.30**
	Total	**2.66**	**2.66**	**2.66**	**7.98**

36.1.15 The capital cost of the project is Rs 400 Crores and the capital cost for environmental management of the proposed project is estimated to be Rs.10.96 crores. Budget allocation of Rs 57 Lakh shall be made every year to meet the recurring expenditure for implementing the environmental control and improvement measures. The employment generation from the proposed project / expansion is 140 (20 permanents and 120 Contractual labour). The details of cost for environmental protection measures is as follows:

SL No	**Item Description**	**For Proposed Expansion**	
		Capital Investment (Rs. in Lakhs)	**Recurring Cost Per Year (Rs. in Lakhs)**
1.	Air Pollution Control (Bag House/ filters, dust suppression hoods etc)	800	15
2.	Water Pollution Control/Sewage Treatment Plant	30	05
3.	Noise Pollution Control	15	02
4.	Solid Waste Management	30	05
5.	Environment Monitoring and Management	50	10
6.	Rainwater Harvesting (RWH)	30	05
7.	Green Belt & Landscaping, Others	141.12	15
	Total	**1096.12**	**57**

36.1.16 **<u>Action plan with respect to mitigation measures for CPA</u>**

Action Point	**Compliance**
Air Pollution Management	
Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	High efficiency 28 nos. of Bag Filters are installed in the existing plant to reduce the emissions as per the prescribed norms (PM <30 mg/Nm^3) by MoEF&CC/WBPCB/CPCB. In proposed expansion for control of point source emission high efficiency 20 Nos. of Bag filters will be installed and

Action Point	Compliance
	emission norms from process stacks shall be kept below the prescribed norms.
CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	Two CEMS has already been installed as per SPCB directions in existing unit and connected to SPCB and CPCB server. One more CEMS will be installed in proposed expansion and will be connected to SPCB and CPCB server.
Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.	Mitigation measures for Ambient air quality; 1. In addition to existing water sprinklers, one more sprinkler will be added and frequency of water sprinkling will be increased accordingly. 2. All the stock yards of the raw material will be stored in the closed shed with water sprinklers 3. For dust suppression along the road and additional area pipeline will be installed for continuous water sprinkling purpose 4. Existing manual handling system will be replaced by implementing art of technology i.e installing stacker reclaimer (with mechanised system) which will help in reducing the PM10 significantly. 5. Water sprinkling arrangements such as specially fabricated tankers mounted and continuous water sprinkling system at all the sources where the fugitive dust is generated deployed at plant site to control the fugitive dust generation from the roads. 6. Regular grading of roads and service roads to clear accumulation of loose material with vacuum cleaner system vehicle. 7. The transportation vehicles will be covered by the taruplin. 8. In the expansion project we are proposing to dispatch the end users by rail racks. 9. To lead the surrounding industrial units to collectively take mitigation measures for AAQ in consultation with SPCB as per MOEF Letter No. Q-16017/38/2018-CPA dated 24.10.2019. 10. Good housekeeping will be maintained.
Transportation of materials by rail/ conveyor belt, wherever feasible	Most of the raw materials will be transported through the rail except dry fly ash which will be transported through road in closed bulkers. About 80% of the finished product (cement) shall be transported through rail rack and in covered trucks about 20%.
Encourage use of cleaner fuels (pet coke/ furnace oil/ ISHS may be avoided).	No pet coke and Furnace oil shall be used. We shall be using LDO/HSD for start-up of HAG and we have made a provision of using dual fuel coal/ PNG as per the availability of fuel in the proposed expansion.

Action Point	Compliance
Best Available Technology may be used. For example, usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	Not Applicable for cement grinding unit.
Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.	Total area available with the ACL including existing plant at Sankrail unit is 32.64 ha. Out of the total area existing Plant is located in 18.36 ha. Rest of the 14.28 ha has been proposed for said expansion. ACL has already developed a greenbelt in 4.86 ha area in existing unit. Further in proposed expansion ACL proposed to develop additional greenbelt in 5.91 ha area to achieve total greenbelt in 10.77 ha area (33% of the total project area). Beside that ACL has proposes to develop a dense greenbelt out ide the plant area in about 2.887 ha (2.677+0.21 ha) area. The outside plant greenbelt development shall be done in surrounding 10 nos. of villages and nearby schools. Thus, total greenbelt area to be developed by ACL is around 13.657 ha i.e. about 41.84% of the total plot area. ACL has earmarked a a budget of Rs. 1.411 Cr (Rs. 1,41,12,905/-) for development of 12865 nos. of trees in proposed expansion under proposed greenbelt development programme.
Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	
Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition	The site is connected to NH-6 through a 7.5 m wide road. Indian Road Congress (IRC: 64 – Guidelines for Capacity of Roads in Rural Area – Code of Practice, 1990) indicates the design service value of 15000 PCU/day for a 2-lane road (7.5 m width) and 2000 PCU/day for a single-lane road (3.5 m width) on plain rural terrain. Existing capacity of the 2-lane road stretches under mixed traffic conditions were studied and the PCU estimated as per guidelines of IRC. Based on above guidelines and code of practice it has been ascertained that the 2-lane road stretches is well within the design service value of 15000 PCU/day, as prescribed by the Indian Road Congress. The current load on the Munsirhat-Sankrail Road is estimated to be 2485 PCU which is far below the service value of 15000 PCU/day. The additional PCU load to be added on this road due to proposed expansion will be 1673 PCU. Total load after expansion of ACL project will be 4158 PCU which is far below the carrying capacity of the road and adequate to bear the increased traffic load due to proposed expansion.
Water Pollution Management	
Reuse/recycle of treated wastewater, wherever feasible	Cement manufacturing process is a dry process. No wastewater will be generated in the process. After expansion total 176 KLD wastewater will be generated and treated in STP. Out of the total Treated water about 140 KLD

Action Point	Compliance
	will be used for greenbelt development and dust suppression. 38 KLD from expansion, and 102 KLD from existing unit.
Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting).	Not Applicable, No process effluent is generated from cement grinding unit.
A detailed water harvesting plan may be submitted by the project proponent	The total roof area available for rainwater harvesting in Packing plan and truck loading area is estimated to be 8688 m^2. The annual potential for rainwater harvesting has been estimated as 12719 m^3. Existing budget is Rs 6.7 L and proposed for expansion is Rs 35L.
Zero- liquid-discharge-wherever-techno economically feasible.	Cement making is a dry process wastewater shall be generated from domestic only. The wastewater generated shall be treated in STP and 100% reused within the plant premises.
In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	200 KLD STP has been installed
Land Pollution Management	
Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects	Total area available with the ACL including existing plant at Sankrail unit is 32.64 ha. Out of the total area existing Plant is located in 18.36 ha. Rest of the 14.28 ha has been proposed for said expansion. ACL has already developed a greenbelt in 4.86 ha area in existing unit. Further in proposed expansion ACL proposed to develop additional greenbelt in 5.91 ha area to achieve total greenbelt in 10.77 ha area (33% of the total project area). Beside that ACL has proposes to develop a dense greenbelt out ide the plant area in about 2.887 ha (2.677+0.21 ha) area. The outside plant greenbelt development shall be done in surrounding 10 nos. of villages and nearby schools. Thus, total greenbelt area to be developed by ACL is around 13.657 ha i.e. about 41.84% of the total plot area. ACL has earmarked a budget of Rs. 2.35 Cr for development of 12865 nos. of trees in proposed expansion under proposed greenbelt development programme.
Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	
Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.	No such waste is being generated at site hence not applicable.

Action Point	Compliance
More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-Processing.	Hazardous waste shall be disposed as per Schedule I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
Other Condition(additional)	
Monitoring of compliance of EC conditions may be submitted with third party audit every year	For existing EC, it is already complied and submitted to IRP, MOEFCC, West Bengal. Same will be followed in future.
The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	Existing budget for CER activities in surrounding areas is Rs, **263.39 lakh** in year 2019-2020, Rs. **157.55 Lakhs** in year 2020-2021 and Rs. **152.335** lakhs in year 2021-2022. For proposed expansion ACL has earmarked a budget of **Rs. 798 Lakhs** . Details enclosed.

36.1.17 Existing greenbelt already developed in 4.86 ha area comprising of around 10,500 trees within the plant premises. Further in proposed expansion ACL proposed to develop additional greenbelt in 5.91 ha area to achieve total greenbelt in 10.77 ha area (33% of the total project area). It is planned to develop 16,425 trees @ of 2,500/hectare in total 10.77 hectare after expansion. Beside that ACL has proposes to develop a dense greenbelt outside the plant area in about 2.887 ha (2.677+0.21 ha) area. The outside plant greenbelt development shall be done in surrounding 10-12 nos. of villages and nearby schools. Thus, total greenbelt area to be developed by ACL is around 13.657 ha i.e. about 41.84% of the total plot area. Approx. a budget of Rs. 2.35 Cr (Rs. 2,35,21,850/-) have been earmarked for development proposed greenbelt development programme.

36.1.18 It is submitted that there Ambuja Cements Limited is one of the respondents other than West Bengal Pollution Control Board, Kolkata, Department of Environment, Govt. of West Bengal, District Magistrate, Howrah, SEIAA, Kolkata, Central Pollution Control Board of NGT Application No. 98/2021/EZ, appeal order dated 01/12/2021 between Basudeb Bar & Ors. Vs. West Bengal Pollution Control Board & Ors. Matter is **disposed** of vide order I.A. No.05/2023/EZ dated 02.05.2023.

The following observations of the NGT as given below;

1. The West Bengal Pollution Control Board has also filed the Report of the Assistant Chief Medical Officer of Health, Sadar, Howrah dated 27.06.2022 which states that:
    i. The distance between the boundary wall (about 15 ft. height) and the factory site apparently seems to be adequate and green garden boundary has been made for prevention of pollution to local environment.

ii. The screening of local population on health hazard shows no significant differences in respiratory troubles and skin problems compare to other areas. The most of the population reside in a poor environmental and unhygienic condition.

2. With regard to effect of the plant activities on crop cultivation in the vicinity of the Respondent No.6, Unit, the Deputy Director of Agriculture (Admn.), Howrah, and the Deputy Directory of Horticulture, Howrah had submitted their joint report dated 05.05.2022 stating that:
   - No significant crops are present in the adjacent area of Ambuja Cement Plant. Mostly marshy fallow was found in adjacent area.
   - Stray rice fields, one/two jute plots, some leafy vegetable plots and few fruit plants (mainly coconut and mange) were seen.
   - Some dust patches were found on leaves of adjacent fruit plants.
   - The growth & vigour rice fields and leafy vegetable plots are quite normal.
   - Regarding physical conditions of the soil of the crop fields, no abnormality was found. However, any change in solid characters in long run, require detailed physico-chemical analysis by the Competent Authority.

Matter is disposed of vide order I.A. No.05/2023/EZ dated 02.05.2023.

Written representations:

36.1.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 07.06.2023 through email dated 07.06.2023 submitted the following information:

S. No.	Points Raised by EAC Industry-I	Reply by ACL
1.	Revised Action Plan on PH issues for Rs. 6-8 Crores in three years.	Revised Action Plan on PH issues is submitted and updated at para 36.1.14 above**.**
2.	Details of greenbelt development with no. of plants inside and outside the plant (Existing & Proposed).	Updated Layout marked with Greenbelt area existing as well as proposed is submitted**.** Green belt existing as well as proposed details as given below; • ACL has already developed around 10,500 trees within the plant premises. It is planned to develop 16,425 trees @ of 2,500/hectare in total 10.77 hectare after expansion. • In addition, ACL shall develop 6,000 trees outside the plant premises to cover more than 40% green belt cover as per CPA guidelines. • Mortality is considered 15% based on past experience and gap filling of plantation area shall be done • Numbering of the plantation shall be done.

S. No.	Points Raised by EAC Industry-I	Reply by ACL
3.	Ambient air quality mitigation measures for not to touch 100 µg/m^3 of PM10 as per NAAQS standard at plant site.	Mitigation measures for Ambient air quality; 1. In addition to existing water sprinklers, one more sprinkler will be added and frequency of water sprinkling will be increased accordingly. 2. All the stock yards of the raw material will be stored in the closed shed with water sprinklers. 3. For dust suppression along the road and additional area, pipeline will be installed with automatic sprinklers for continuous water sprinkling purpose 4. Existing manual handling system will be replaced by implementing art of technology i.e installing stacker reclaimer (with mechanised system) which will help in reducing the PM10 significantly. ~~5.~~ Water sprinkling arrangements such as specially fabricated tankers mounted and continuous water sprinkling system shall be ensured at all the sources where the fugitive dust is generated. 6. Regular grading of roads and service roads shall be taken up to clear accumulation of loose material with mechanical vacuum cleaner system. 7. The transportation vehicles will be covered by the tarpaulin 8. In the expansion project we are proposing to dispatch the end product -by rail. 9. Improvement in good housekeeping is followed. 10. To lead the surrounding industrial units to collectively take mitigation measures for AAQ in consultation with SPCB as per MOEF Letter No. Q-16017/38/2018-CPA dated 24.10.2019.
4.	NGT order copy and brief description of the same.	Ambuja Cements Limited is one of the respondents other than West Bengal Pollution Control Board, Kolkata, Department of Environment, Govt. of West Bengal, District Magistrate, Howrah, SEIAA, Kolkata, Central Pollution Control Board of NGT Application No. 98/2021/EZ, appeal order dated 01/12/2021 between Basudeb Bar & Ors. Vs. West Bengal Pollution Control Board & Ors. The following observations of the NGT as given below; 1. The West Bengal Pollution Control Board has also filed the Report of the Assistant Chief Medical Officer of Health, Sadar, Howrah dated 27.06.2022 which states that: i) The distance between the boundary wall (about 15 ft. height) and the factory site apparently seems to be adequate and green garden boundary has been made for prevention of pollution to local environment.

S. No.	Points Raised by EAC Industry-I	Reply by ACL
		ii) The screening of local population on health hazard shows no significant differences in respiratory troubles and skin problems compare to other areas. The most of the population reside in a poor environmental and unhygienic condition. 2. With regard to effect of the plant activities on crop cultivation in the vicinity of the Respondent No.6, Unit, the Deputy Director of Agriculture (Admn.), Howrah, and the Deputy Directory of Horticulture, Howrah had submitted their joint report dated 05.05.2022 stating that: - No significant crops are present in the adjacent area of Ambuja Cement Plant. Mostly marshy fallow was found in adjacent area. - Stray rice fields, one/two jute plots, some leafy vegetable plots and few fruit plants (mainly coconut and mange) were seen. - Some dust patches were found on leaves of adjacent fruit plants. - The growth & vigour rice fields and leafy vegetable plots are quite normal. - Regarding physical conditions of the soil of the crop fields, no abnormality was found. However, any change in solid characters in long run, require detailed physico-chemical analysis by the Competent Authority. Matter is disposed of vide order I.A. No.05/2023/EZ dated 02.05.2023. NGT order copy is submitted**.**
5.	Detailed action plan with respect to mitigation measures for CPA.	ACL has well established mitigation measures for CPA as per the guideline of West Bengal State Pollution Control Board with respect to CPA and will continue in future**.** Details are updated at para 36.1.16 above**.**

Certified Compliance Report from SPCB

36.1.20 The Status of compliance of earlier EC was obtained from Regional Office, Kolkata *vide* letter no. 102-428/11/EPE/321, dated 25.07.2022 in the name of M/s Ambuja Cements Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional Officer MoEF&CC, Kolkata vide letter no. ACL/SK/ENV/08-22/04 dated 16.08.2022. MoEF&CC (RO), evaluated the same and has issued letter vide no. 102-428/11/EPE/384 dated 09.09.2022. Final closure report obtained from IRO, MoEFCC, Kolkata vide File No. 102-428/11/EPE/103 dated 21.03.2023. The details of the observations made by RO in the report along with its re-assessment / present status as furnished by the PP is given as below.

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1	It is required to monitor all the parameters as mentioned in the G.S.R. No. 826(E) dated 16.11.2009	Monitor all the parameters as mentioned in the G.S.R. No. 826(E) dated 16.11.2009	23.06.2011	Yes (ii)		PAs have informed that they will monitor all parameters. Pas have taken quotation for measuring parameters (O_3, Pb, NH_3, C_6H_6, BAP, As, Ni) from R V Briggs Co. Pvt Ltd. work order has been submitted by Pas along with the ATR
2	The noise monitoring data is within 85 dB(A) for all the work zone locations except between mill 1 & 2 (99.3 dB(A)). PAs need to take action to bring down the noise level below 85 dB(A).	The renewal of commitment regarding the merely use of the chrysotile white asbestos fibre has been submitted by PAs to this office. Being complied.	23.06.2011		Yes (vi)	PP is taking maintenance or anyone goes for inspection in Cement Mill area, Ear Plug is provided to our employees to protect from the noise. PP has also displayed Sign age for USE OF EAR PROTECTOR at Cement Mill area as a cautionary measure. we have also provided curtains. We are also exploring the possibility of enclosing the mill area with acoustic enclosure to further restrict the noise level inside the mill building only. Noise Level Monitoring before and after installation of curtain have been carried out by M/s. R V Briggs & CO Private Ltd. an NABL accredited laboratory during period23.08.2022

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						outside the cement mill area to establish the effectiveness of the curtain. The observed monitoring results are well within the permissible limits.
3	PAs need to submit the letter sent to Dhulagori Gram Panchayat and Zilla Parishad dated 20.08.201l.	IRO, Kolkata had requested PAs to submit the letter dated 20.08.2011	23.06.2011		Yes (xi)	PP has submitted the letter sent to Dhulagori Gram Panchayat dated 20.08.2011.

Deliberations by the Committee

36.1.21 The Committee noted the following:

1. The instant proposal is for expansion of existing Cement Grinding Unit from 2.4 to 4.0 MTPA.
2. The proposed cement griding unit is a category B project and appraised as Category A project due to Critically Polluted Areas of Jalan Industrial Complex-I (Howrah) located about 3.07 km from the plant boundary.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. The existing project was accorded environmental clearance vide file no. J-11011/547/2010-IA II (I) dated 23.06.2011. Consent to Operate for the existing unit was accorded by State

Pollution Control Board vide letter. no. C0128916 dated 12.02.2020 and valid up to 30.04.2024.

7. The committee deliberated on the certified compliance report of earlier EC submitted by the IRO MoEFCC and found them to be satisfactory.

8. The total project area is 32.64 ha which is under the possession of the project proponent. Out of the total area existing Plant is located in 18.36 ha. Rest of the 14.28 ha has been proposed for said expansion which within this existing premises.

9. Barajala Drainage is at a distance of 0.2 km in South of the project site. Also, there are other water bodies such Hooghly River and Sarenga Nallah within the study area of 10 km of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

10. The existing water requirement is 280 m^3/day which is obtained from Ground Water. The water requirement for the proposed project is estimated as approx. 130 m^3 /day, out of which 90 m^3/day of fresh water requirement will be obtained from the Ground Water and the remaining requirement of 38 m^3 /day will be met from the recycled water.

11. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and is of the opinion that PP shall strictly implement an action plan and various safeguards as submitted to minimise the levels of PM_{10} and $PM_{2.5}$.

12. The PP has submitted that existing greenbelt already developed in 4.86 ha area comprising of around 10,500 trees within the plant premises. Further in proposed expansion ACL proposed to develop additional greenbelt in 5.91 ha area to achieve total greenbelt in 10.77 ha area (33% of the total project area). It is planned to develop 16,425 trees @ of 2,500/hectare in total 10.77 hectare after expansion. Beside that ACL has proposes to develop a dense greenbelt outside the plant area in about 2.887 ha (2.677+0.21 ha) area. The outside plant greenbelt development shall be done in surrounding 10-12 nos. of villages and nearby schools. Thus, total greenbelt area to be developed by ACL is around 13.657 ha i.e. about 41.84% of the total plot area. Approx. a budget of Rs. 2.35 Cr (Rs. 2,35,21,850/-) have been earmarked for development proposed greenbelt development programme. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that, the greenbelt shall be completed in the coming monsoons of 2023.

13. The EAC noted that Ambuja Cements Limited is one of the respondents other than West Bengal Pollution Control Board, Kolkata, Department of Environment, Govt. of West Bengal, District Magistrate, Howrah, SEIAA, Kolkata, Central Pollution Control Board of NGT Application No. 98/2021/EZ, appeal order dated 01/12/2021 between Basudeb Bar & Ors. Vs. West Bengal Pollution Control Board & Ors. Matter is disposed of vide order I.A. No.05/2023/EZ dated 02.05.2023.

14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

15. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

16. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.

17. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

18. EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

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

Recommendations of the Committee:

36.1.22 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 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 based on project specific requirements:

A. Specific Condition:

i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

ii. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

iii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iv. The PP shall obtain complete acquisition of the proposed land and convert for the industrial purpose as per State Government Rules/Guidelines prior to commencement of project.

v. In pursuance to MoEF&CC OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th August, 2019, the compliance of all the conditions applicable to CEPI shall be implemented as per the submitted plan.

vi. The industry shall initiate and take lead in a collective effort of all industries in the Critically Polluted Area, where the industry is located, to minimise the pollution levels and bring them below the critical permissible levels. The initiative and outcome of the efforts must be placed in public domain.

vii. Barajala Drainage is at a distance of 0.2 km in South of the project site. Also, there are other water bodies such Hooghly River and Sarenga Nallah within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

viii. The water requirement of additional 130 m^3/day for expansion project is proposed to be obtained from ground water. Necessary permission shall be obtained from the Competent Authority. PP shall also explore the possibility of shifting to alternate source of water to reduce its dependency from groundwater.

ix. Three tier Green Belt shall be developed in at least 40% of the project area in in the forthcoming monsoons of 2023 with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC. The PP shall explore developing the greenbelt all along the boundary of the project and where there is insufficient place, the PP may go for vertical garden type green cover.

x. All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 amounting to Rs. 7.98 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xi. The PP shall undertake village adoption programme, and prepare and implement an action plan to develop them into model villages.

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 04 Nos. Continuous Ambient Air Quality Station (CAAQMS) 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 carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
iii. 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.
iv. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
ix. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
x. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
xi. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
xii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
xiii. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
xiv. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.

xv. The particulate matter emissions from the process stacks shall be less than 30 mg/Nm^3 and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.

xvi. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points).
   b. Proper covered vehicle shall be used while transport of materials.
   c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

xvii. Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions.

xviii. The emission norms applicable for the cement plant shall be adhered to.

xix. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.

xx. DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm^3 by using best available technology.

xxi. Petcoke dosing shall be controlled automatically to control SO_2 emission from chimney within the prescribed limits.

xxii. PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.

xxiii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.

xxiv. The industry should place in public domain information on the total volume of gas exhausted through the stacks, per annum, m^3/year and the concentration of dust in the exhaust gas in mg/m^3.

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 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. 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. Tyre washing facilities shall be provided at the entrance of the plant gates.

v. Water meters shall be provided at the inlet to all unit processes in the plants.

vi. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.

vii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall

be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

viii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.

ix. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

IV. Noise monitoring and prevention

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

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

i. 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;

ii. Provide LED lights in their offices and residential areas.

iii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

iv. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

v. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms.

VI. Waste management

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

ii. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.

iii. Kitchen waste shall be composted or converted to biogas for further use.

iv. 100% utilization of fly ash shall be ensured.

v. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

vi. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.

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

iii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

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. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

vi. 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.

vii. 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.

viii. 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.

ix. 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.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) 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.

xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier

ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

xii. 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).

xiii. 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.

xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xvi. 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.

xvii. 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.

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Re-Consideration in Environmental Clearance Proposals

Agenda No. 36.2

36.2 Expansion in Existing Sponge Iron Plant (2 x 100 TPD) by addition of 350 TPD DRI Kiln, SMS Unit (1,35,000 TPA), Rolling Mill (1,20,000 TPA), Sinter Plant (90,000 TPA), Ferro Alloy Plant (2 x 9 MVA SAF and 2 x 12 MVA SAF) and Captive Power Plant (WHRB#13MW and AFBC#9 MW) by M/s M B Sponge and Power Limited, located at Village + P.S-Hijalgora, Post Office- Jamuria, District-West Bardhman, West Bengal- Re-Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/420182/2023; File No. IA-J-11011/310/2019-IA-II(IND-I)]
[Consultant: Grass Roots Research & Creations India (P) Ltd.; Valid upto 15.02.2024]

36.2.1 M/s. M.B. Sponge and Power Limited has made an online application vide proposal No-IA/WB/IND1/420182/2023, dated 04.04.2023 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B &C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

36.2.2 Name of the EIA consultant: M/s. Grass Roots Research & Creations India (P) Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0213; Valid up to 15.02.2024, as on June 5, 2023].

Details submitted by Project proponent

36.2.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
01.10.2019	13th meeting of the EAC (Industry-I) held on 23-24th November 2019.	Terms of Reference	02.01.2020	01.01.2024
18.06.2022	10th meeting of the EAC (Industry-I) held on 1-3rd August 2022.	Amendment in TOR	30.08.2022	

36.2.4 The project of M/s M B Sponge and Power Limited located in Village+PO- Hijalgora, District-West Bardhman, West Bengal is for expansion in existing Sponge Iron Plant (2x100 TPD DRI Kiln) by addition of 350 TPD DRI Kiln for production of Sponge Iron (Existing (60000 TPA) + Expansion (1,05,000 TPA)), MS Billets Production of 1,35,000 TPA with installation of 3 x 15 Ton IF, Rolling Mill of 1,20,000 TPA, Sinter Plant of 90,000 TPA, Ferro Alloy Plant for production of Fe-Mn (89,481 TPA) or Si-Mn (38,989 TPA)or Fe-Si (71,820 TPA)with 2x9 MVA and 2 x 12 MVA submerged Arc furnace and 22 MW Captive Power Plant {WHRB#13MW (2 x 10 TPH and 1 x 40 TPH) and AFBC#9 MW (1 X 40 TPH).

36.2.5 Environmental Site Settings:

<table>
<tr><th>S.No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total Land</td><td>Existing :-
3.36 ha [Private land]

Expansion:-
12.29 ha [Private land]
Total land :- 15.65 ha</td><td>Out of the total 15.65 ha, 8.08 ha has already been diverted for industrial use where as for remaining 7.57 ha, application has been submitted.</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M dated 7/10/2014</td><td>Entire land of 15.65 ha is under the possession of proponent.</td><td></td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Nil</td><td></td></tr>
<tr><td>4</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>S.No</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td>23°42'9.63"N</td><td>87° 6'44.31"E</td></tr><tr><td>2</td><td>23°42'9.49"N</td><td>87° 6'50.22"E</td></tr><tr><td>3</td><td>23°42'9.45"N</td><td>87° 6'54.72"E</td></tr><tr><td>4</td><td>23°42'3.54"N</td><td>87° 6'55.79"E</td></tr><tr><td>5</td><td>23°41'49.12"N</td><td>87° 6'57.18"E</td></tr><tr><td>6</td><td>23°41'48.95"N</td><td>87° 6'50.53"E</td></tr><tr><td>7</td><td>23°41'51.35"N</td><td>87° 6'49.17"E</td></tr><tr><td>8</td><td>23°41'56.81"N</td><td>87° 6'47.53"E</td></tr></table></td><td></td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>132 Meter above the sea level</td><td></td></tr>
<tr><td>6</td><td>Involvement of Forest land if any.</td><td>Nil</td><td></td></tr>
<tr><td>7</td><td>Water body exists within the project site as well as study area</td><td>Project Site – Nil
Study Area<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Ajay River</td><td>7.4 km</td><td>ESE</td></tr></table></td><td></td></tr>
<tr><td>8</td><td>Existence of ESZ / ESA/national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve</td><td>Nil</td><td></td></tr>
</table>

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

36.2.6 The existing project was accorded Consent to establish vide letter no. NO-28813 dated 06.01.2006. Consent to Operate for the existing unit was accorded by WBSPCB vide Memo No. 582-2N-16/2006(O) dated 10.08.2006. Validity of latest CTO is upto 31.03.2027. EC was not applicable as our project was established and operation before 2006.

36.2.7 Implementation status of Existing CTE :-

S.No.	Facilities	Units	As per CTO dated 10.08.2006	Implementation status on date	Production as per CTO
1.	DRI Plant	2 x 100 TPD	60,000 TPA	Operational & Implemented	60,000 TPA

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

S. No.	Plant Equipment/ Facilities	Existing facilities as per CTE dated 27.01.2006		Proposed		Final (after expansion)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	**Sponge Iron Plant**	2 x 100 TPD	60000 TPA	1 x 350 TPD	105000 TPA	2 x 100 TPD + 1 x 350 TPD	165000 TPA
2.	**SMS Unit**	Non Existing		3 x 15 tonnes IF with CCM (2 strands of 6 x 11 radius)	135000 TPA	3 x 15 tonnes IF with CCM (2 strands of 6 x 11 radius)	135000 TPA
3.	**Rolling Mill**	Non Existing		400 TPD	**120000 TPA**	400 TPD	**120000 TPA**
4.	**Sinter Plant**	Non Existing		300 TPD	**90000 TPA**	300 TPD	**90000 TPA**
5.	**Ferro Alloy Plant**	Non Existing		2 x 9 MVA SAF and 2 x 12 MVA SAF	Fe-Mn :- 89481 TPA Si-Mn :- 38989 TPA Fe-Si :- 71820 TPA	2 x 9 MVA SAF and 2 x 12 MVA SAF	Fe-Mn :- 89481 TPA Si-Mn :- 38989 TPA Fe-Si :- 71820 TPA
6.	**Captive Power Plant**	Non Existing		WHRB :- 2 x 10 TPH + 1 x 40 TPH	WHRB :- 13 MW	WHRB :- 2 x 10 TPH + 1 x 40 TPH	WHRB :- 13 MW

S. No.	Plant Equipment/ Facilities	Existing facilities as per CTE dated 27.01.2006		Proposed		Final (after expansion)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
				AFBC :- 40 TPH	AFBC :- 9 MW	AFBC :- 40 TPH	AFBC :- 9 MW

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

Sl. No.	Raw Material	Quantity (TPA)			Source	Distance (w.r.t. Plant)	Mode of transport
		Existing	Expansion	Total			
A.	**DRI Plant**						
1.	Iron Ore	96,000	1,68,000	2,64,000	Out Source	300-350 km	By Rail & Road through covered trucks
2.	Non Coking Coal	78,000	1,36,000	2,14,500	CCL	20-30 km	By Rail & Road through covered trucks
3.	Dolomite	1,800	3,150	4,950	Open Market	20-30 km	By Road through covered trucks
B.	**SMS Unit**						
1.	Sponge Iron	-	110160	110160	In-House Production	--	Through Conveyor
2.	Scrap	-	46306	46306	Local Market	20-30 km	By Road through covered trucks
3.	Ferro Alloys	-	810	810	Local Market	20-30 km	By Road through covered trucks
C.	**Rolling Mill**						
1.	Billets	-	123600	123600	In-House Production	--	Through Conveyor
D.	**Sinter Plant**						
1.	Iron Ore Fines	-	76500	76500	In House Screening Unit	--	Through Conveyor
2.	Limestone (HS)	-	4500	4500	Out Source	20-30 km	By Road through covered trucks
3.	Limestone(LS)	-	5400	5400	Out Source	20-30 km	By Road through covered trucks
4.	Coke						
4.	Lime	-	1200	1200	Out Source	20-30 km	By Road through covered trucks
5.	LD Slag	-	900	900	SMS Shop	20-30 km	By Road through covered trucks
6.	Sinter Return Fines	-	1500	1500	Sinter Plant	20-30 km	Through Conveyor Belt

Sl. No.	Raw Material	Quantity (TPA)			Source	Distance (w.r.t. Plant)	Mode of transport
		Existing	Expansion	Total			
E.	**Ferro Alloy Plant**						
Ferro Manganese							
1.	Manganese Ore	-	132867	132867	MOIL; OMC; and other private mines	300 km	Road through covered trucks
2.	Coke	-	32319	32319	Open Market	20-30 km	Road through covered trucks
3.	Coal	-	25137	25137	Nearby Coal Mines	20-30 km	Road through covered trucks
4.	Dolomite	-	10772	10772	Open Market	20-30 km	Road through covered trucks
5.	Quartz	-	15800	15800	Open Market	20-30 km	Road through covered trucks
6.	Carbon Paste	-	1436	1436	Open Market	20-30 km	Road through covered trucks
7.	Ferro Manganese Slag	-	32318	32318	In house plant	-	Conveyer belt
Silico Manganese							
1.	Manganese Ore	-	196859	196859	MOIL; OMC; and other private mines	300 km	Road through covered trucks
2.	Coke	-	40267	40267	Open Market	20-30 km	Road through covered trucks
3.	Coal	-	23265	23265	Nearby Coal Mines	20-30 km	Road through covered trucks
4.	Dolomite	-	22370	22370	Open Market	20-30 km	Road through covered trucks
5.	Carbon Paste	-	1789	1789	Open Market	20-30 km	Road through covered trucks
Ferro Silicon							
1.	Quartzite	-	72130	72130	Open Market	300 km	Road through covered trucks
2.	Mill Scale	-	14816	14816	Open Market	20-30 km	Road through covered trucks
3.	Charcoal	-	87692	87692	Open Market	20-30 km	Road through covered trucks

Sl. No.	Raw Material	Quantity (TPA)			Source	Distance (w.r.t. Plant)	Mode of transport
		Existing	Expansion	Total			
4.	Coke Breeze	-	9747	9747	Open Market	20-30 km	Road through covered trucks
5.	Carbon Paste	-	1949	1949	Open Market	20-30 km	Road through covered trucks
F.	**Captive Power Plant**						
	WHRB Boiler						
1.	Hot Flue Gas		143000 Nm^3/hr	143000 Nm^3/hr	DRI Plant	--	Pipe conveyer
	AFBC Boiler						
1.	Dolochar		61345	61345	DRI Plant	--	Conveyer Belt
2.	Indian Coal		19610	19610	Local Market	20-30 km	Road through covered trucks

36.2.10 The existing water requirement is 190 m3/day and is being sourced from Jamuria Municipality water supply and permission for the existing water supply has been obtained vide Memo no. 429/JM dated 19.02.2012. The water requirement for the proposed expansion project is estimated 1447 m3/day, which will be sourced from Asansol Municipal Corporation . Application for additional water supply has been submitted to Asansol Municipal corporation dated 03.08.2022.

36.2.11 The existing power requirement of 1.5 MW is obtained from India Power Corporation Limited. The power requirement for the proposed expansion project is estimated as 52 MW out of which 22 MW will be sourced from in house captive power plant and remaining will be sourced from India Corporation Power Limited.

36.2.12 Baseline Environmental Studies:

Period	Pre Monsoon Season: 1st March 2022 to 31st May 2022
AAQ parameters at 08 Locations	• $PM_{2.5}$ = 34.4-49.8 µg/m^3 • PM_{10} = 59.4-85.3 µg/m^3 • SO_2 = 5.9-13.9 µg/m^3 • NO_2 = 12.2-24.2 µg/m^3
AAQ modelling	• Incremental GLCs due to the proposed proposal: • PM_{10} :- 3.15 µg/m^3 • $PM_{2.5}$:- 1.02 µg/m^3 • SO_2 = 8.33 µg/m^3 • NO_2 :- 5.45 µg/m^3 • CO :- 0.96 µg/m^3
Ground water quality at 08 locations	• pH: 7.47-7.86 • Total Hardness: 198-230 mg/l. • Chlorides: 65-88 mg/l,

<table>
<tr><td></td><td>• Fluoride: 0.3-0.6mg/l</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>• pH: 7.35-8.13
• DO: 3.2-6.5mg/l.
• BOD: 2.4-11.5mg/l
• COD : 10.2-49 mg/l</td></tr>
<tr><td>Noise levels</td><td>47.9 to 73.3 dBA - day time
35.7 to 61.9 dBA- Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at NH#2 which is at 3.5 km from the project site.

Transportation of raw material, fuel & furnished product will be done maximum by road.

Existing PCU is 2448 PCU/hr on NH#2 and existing level of services (LOS) is:

<table>
<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>
<tr><td>NH#2</td><td>2448</td><td>5400</td><td>0.45</td><td>C</td></tr>
</table>

PCU load after proposed Project will be 2448 (Existing)+41 (Proposed) = 2489 PCU/hr and level of Services (LOS) will be:

<table>
<tr><th rowspan="2">Road</th><th colspan="3">V (Volume in PCU/hr.)</th><th rowspan="2">C(Capacity InPCU/hr.)</th><th rowspan="2">Proposed V/C Ratio</th><th rowspan="2">LOS</th></tr>
<tr><th>Existing</th><th>Proposed</th><th>Total</th></tr>
<tr><td>NH#2</td><td>2448</td><td>41</td><td>2489</td><td>5400</td><td>0.46</td><td>C</td></tr>
</table>

Note: Capacity as per IRC 106:1990 guidelines for capacity for roads.

Conclusion:

The modified LOS on NH#2 will be remained “C”, i.e. Good.

Therefore there will be no change in LOS after completion of the project.</td></tr>
<tr><td>Flora and fauna</td><td>No schedule I fauna and endangered Flora reported in study area.</td></tr>
</table>

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

S.No	Unit	Name	Existing (TPA)	Final (TPA)	Proposed Method of Disposal
1	DRI Plant	Dolochar from DRI	22,304	61,337	Will be utilized as fuel in proposed AFBC Power plant.
		Kiln Accretion Slag from DRI	670	1,840	Will be used in road construction & given to brick manufacturers.

S.No	Unit	Name	Existing (TPA)	Final (TPA)	Proposed Method of Disposal
		Wet scrapper sludge from DRI	3,420	9,405	Will be used in road construction & given to brick manufacturer.
		Ash / Dust generated from DRI Rotary kiln	43,493	1,19,606	Ash generated is being given to Brick Manufacturers
2	SMS Unit	Slag from IF	NIL	31,500	Slag will be crushed and after recovery of iron, after that it will be utilized for internal Road laying/given to Contractor.
3	Rolling Mill	Mill Scale			
		End Cutting	NIL	7,500	Will be reused in proposed SMS.
4	Sinter Plant	Return Fines	-	21000	Will be reused as raw material in plant itself.
5	Ferro Alloy Plant	Slag from Fe-Mn	NIL	66808	Will be used in manufacture of Silico manganese as it contains high MnO_2.
		Slag from Si-Mn	NIL	10632	Will be given to nearby building contractor to be used as filling material for low lying area and for manufacturing fly Ash brick/ block making unit.
		Slag from Fe-Si	NIL	62290	Will be given to nearby building contractor to be used as filling material for low lying area and manufacturing fly Ash brick/ block making unit.
		Bag filter Dust for Fe-Mn	NIL	35792	Will be used for land filling and brick manufacturing
		Bag filter Dust for Si-Mn	NIL	26221	
		Bag filter Dust for Fe-Si	NIL	15948	
6	CPP	Ash from CPP	NIL	38,272	Ash generated will be given to brick manufacturers.

36.2.14 Public Consultation:

Details of advertisement given	03/12/2022
Date of public consultation	06/01/2023
Venue	Midway No. 1 hotel, G.T. Road, Jamuria, West Bengal
Presiding Officer	Additional District Magistrate Paschim Bardhman District WB

Major issues raised	Employment, Environment pollution, Education, Medical /Health facilities, etc.

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

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1st Year	2nd Year
1.	Adoption of village	PP has also proposed to adopt 3 village i.e. Ikra, Hijalgora and Nandi village. Formulate village development program under consultation with local panchayat and district administration for need-based community development activities which would be in addition to the development plans being undertaken by state and central government.	A budget of **280 lakhs** has been proposed.	**170 Lakhs** . Construction of Village Roads :- 30 Lakhs . A budget of Rs 25 Lakhs has been proposed for providing Drinking water facility. . A budget of Rs. 25 lakhs has been proposed for Solar system to schools. . Construction of community toilets for male and female :- 30 Lakhs . Providing Training to start business to covid affected persons :- 20 Lakhs . Construction of Community halls in Village Ikra	**110 Lakhs** 1. Construction of Village Roads :- 30 Lakhs 2. A budget of Rs 25 Lakhs has been proposed for providing Drinking water facility. 3. A budget of Rs. 25 lakhs has been proposed for Solar system to schools. 4. Construction of community toilets for male and female :- 30 Lakhs 5. Providing Training to start business to covid affected persons :- 20 Lakhs 6. Construction of Community halls in Village Ikra
2.	Pollution control	1. Continuous Air Quality Monitoring	120 Lakhs	**80 Lakhs**	**40 Lakhs**

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1st Year	2nd Year
	measure & Environment norms	system in all three villages near chauraha 2. Tree Plantation will be developed in near by villages in consultation with the authority. 3. Water sprinkling on road for air dust dispersion control in near by villages in consultation with the authority.		Installation of CAQMS in Village Hijalgora and Nandi :- 40 Lakhs Plantation of 7000 trees :- **20 Lakhs** Construction of water sprinkler and air dispersion control system **:- 20 Lakhs**	Installation of CAQMS in Village Ikra :- 20 Lakhs Plantation of 3000 trees :- **10 Lakhs** Construction of water sprinkler and air dispersion control system :- **10 Lakhs**
3.	Employment for the locals	Willing and employable youths will be identified in consultation with gram panchayat of Hijalgora and Nandi. They will be provided training for trades namely electrician, fitters, welders, painters, and civil construction work, etc.. After successful completion of training, the youths will be offered employment in company in suitable grade.	**140 Lakhs** Stipend – 60 Lakh (2000/- stipend to 250 persons for 1 year) ITI Fee – 80 Lakhs (32000/- yearly fee for 30 persons)	**80 Lakhs**	**60 Lakhs**
4.	Education for children in the locality	Providing Study materials, drinking water facilities and sports equipment in nearby primary schools.	100 Lakhs Providing Laptops to 50 students – 2400000	**60 lakhs**	**40 lakhs**

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1st Year	2nd Year
			Providing Study materials :- 600000 Providing sports equipment :- 3000000 Providing drinking water facilities :- 2000000 Providing school bus :- 20 Lakhs Modernisation of classrooms :- 20 Lakhs		
5.	Concern about health of local people	Arrangement of 4 Modern Ambulance with Life Support system with necessary Medical Staff.	**60 Lakhs** 4 Ambulance and super speciality bed Medical staff will be arranged	**40 Lakhs**	**20 lakhs**
Total				**712 Lakhs**	

36.2.15 Total project cost after expansion is INR 356 cr. Existing capital cost of the project is INR 20.87 cr. The capital cost of the expansion project is INR 335.13 Cr. The capital cost for environmental protection measures is proposed as INR 31.07 Cr after expansion. The annual recurring cost towards the environmental protection measures is proposed as Rs 2.25 Cr after expansion. The total employment generation from the proposed project is 561 after expansion. The details of cost for environmental protection measures is as follows:

S. No	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Cr)
1	**Air Emission Management**		
	➢ Electro Static Precipitators (ESP)	9.5	1

S. No	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Cr)
	➢ Fume Extraction system with bag filters	1.5	
	➢ Multicyclones followed by Bag filters & others	1.25	
	➢ Stacks	1.0	
	➢ Water Sprinklers	0.3	
2	**Wastewater Management**		
	➢ for ETP (250 KLD) & STP (25 KLD)	1.0	0.20
	➢ for Garland drains	0.36	
3	**Solid waste Management**		
	➢ Fly Ash Handling & disposal	1.05	0.45
	➢ Slag Handling & Disposal	1.25	
	➢ Hazardous waste storage & disposal	0.35	
	➢ Municipal solid waste storage & disposal	0.22	
4	Greenbelt development, Land scaping, Noise Management, RWH etc.	0.15	
5	Fire Safety Systems	1.8	0.10
6	Solar Power Plant	3.0	0.35
6	**Environmental Monitoring**		
	➢ AAQMS	0.36	0.10
	➢ CEMS	0.45	
	➢ Third party Monitoring	0.21	
7	**Occupational Health & Safety**		
	➢ PHC	0.15	0.05
	➢ PPEs	0.24	
	➢ Ambulance (additional)	0.16	
8	Corporate Environment Responsibility	7.12	-
Total		**31.07**	**2.25**

36.2.16 Existing greenbelt is developed in 1.12 ha which is about 33 percent of total existing project area .i.e. 3.36 ha with total 2800 No's trees. Proposed greenbelt will be developed in 4.8 ha which is about 39.05% of the expansion project area .i.e. 12.29 ha. Thus total of 5.92 ha area (37.82% of total project area) will be developed as greenbelt after expansion. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 12000 trees will be planted for expansion project.

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

36.2.18 The proposal was initially considered during 26th meeting of the EAC for Industry-I sector held on 12th, 13th and 17th April, 2023 wherein the proposal was deferred due to technical shortcomings. The deliberations and recommendations of EAC are as follows:

Deliberations by the Committee (EAC during 26th EAC meeting)

36.2.19 The Committee noted the following:

1. The PP/Consultant presented the drone survey video before the Committee and EAC observed that housekeeping of the existing plant is very poor. The EAC suggested to improve the housekeeping of the plant area. PP shall submit the housekeeping plan along with the photographs in this regard. PP shall also prepare and present a fresh drone survey after the improved housekeeping.
2. The EAC noted that the existing project is operational based on the Consent to establish obtained from SPCB vide letter no. NO-28813 dated 06.01.2006. The EAC is of the opinion that PP/Consultant shall submit credible documents along with CA certificate certifying that the existing project cost was less to be covered under EIA Notification, 1994 and did not require EC under the provisions of EIA Notification, 1994.
3. PP needs to submit an undertaking by way of affidavit that they have not made any violation pertaining to expansion or production after obtaining CTE.
4. The EAC noted that as reported existing greenbelt is developed in 1.12 ha which is about 33 percent of total existing project area i.e. 3.36 ha with total 2800 No's trees. Proposed greenbelt will be developed in 4.8 ha which is about 39.05% of the expansion project area .i.e. 12.29 ha. Thus total of 5.92 ha area (37.82% of total project area) will be developed as greenbelt after expansion. Total no. of 12000 trees will be planted for expansion project. The EAC opined that PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will complete the remaining greenbelt in the coming monsoon.
5. The EAC noted that the water requirement for the proposed expansion project is estimated 1447 m3/day, which will be sourced from Asansol Municipal Corporation. Application for additional water supply has been submitted to Asansol Municipal corporation dated 03.08.2022. In view of the same, the EAC advised PP to submit the desired water permission from the Competent Authority for further consideration of the project.
6. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.
7. The Committee deliberated on the baseline data and observed that the PM10, PM2.5 and noise levels recorded are way too high. PP shall submit the justification along with the mitigation measures that will be undertaken to minimise the same.

8. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.
9. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
10. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.
11. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

Recommendations of the Committee (EAC during 26th EAC meeting)

36.2.20 In view of the foregoing and after detailed deliberations, the committee recommended to defer the proposal due to certain deficiencies in the proposal and sought requisite information on the points referred at para above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

36.2.21 The proponent submitted the ADS reply vide letter dated 27.05.2023 uploaded on PARIVESH on 27.05.2023. Pointwise reply of the ADS is given below.

S.No.	Queries	Reply by the PP
(i)	The PP/Consultant presented the drone survey video before the Committee and EAC observed that housekeeping of the existing plant is very poor. The EAC suggested to improve the housekeeping of the plant area. PP shall submit the housekeeping plan along with the photographs in this regard. PP shall also prepare and present a fresh drone survey after the improved housekeeping.	M/s. M.B. Sponge and Power Limited has installed water sprinklers and mechanical sweeping system inside plant premises for keeping plan clean. Coal has been stored in covered shed and same will be followed for expansion. A monitoring cell has been constructed for proper house-keeping. M/s. M.B. Sponge and Power Limited presented the fresh drone survey video during the EAC meeting.
(ii)	The EAC noted that the existing project is operational based on the Consent to establish obtained from SPCB vide letter no. NO-28813 dated 06.01.2006. The	The capital cost of the existing sponge iron plant is INR 20.87 Cr as mentioned in CTE vide letter no. NO-28813 dated 06.01.2006.

S.No.	Queries	Reply by the PP
	EAC is of the opinion that PP/Consultant shall submit credible documents along with CA certificate certifying that the existing project cost was less to be covered under EIA Notification, 1994 and did not require EC under the provisions of EIA Notification, 1994.	CTE and CA Certificate has been submitted. There was no violation made in any form since inception as it did not attract the EC under EIA notification 1994 at the time of CTE application.
(iii)	PP needs to submit an undertaking by way of affidavit that they have not made any violation pertaining to expansion or production after obtaining CTE.	Affidavit dated 04.05.2023 for no violation made for expansion and production after obtaining CTE has been submitted.
(iv)	The EAC noted that as reported existing greenbelt is developed in 1.12 ha which is about 33 percent of total existing project area i.e. 3.36 ha with total 2800 No's trees. Proposed greenbelt will be developed in 4.8 ha which is about 39.05% of the expansion project area .i.e. 12.29 ha. Thus total of 5.92 ha area (37.82% of total project area) will be developed as greenbelt after expansion. Total no. of 12000 trees will be planted for expansion project. The EAC opined that PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will complete the remaining greenbelt in the coming monsoon.	• Area of greenbelt – ➢ Existing:- 1.12 ha ➢ Proposed :- 4.8 ha ➢ Total Greenbelt :- 5.92 ha (37.82 percent of total area) ➢ Total Plot Area :- 15.65 ha • There are total 2000 trees already planted within the premises and 800 more saplings have been planted in year 2022. Total 2800 trees are present currently at the site viz Shisham, Neem, Dahua, Gulmohar, Khair, Amaltas etc. • 12000 more saplings will be planted in coming monsoon • PP has assured that they will plant the balance trees in upcoming monsoon season. • Affidavit dated 04.05.2023 for completing the remaining greenbelt has been uploaded.
(v)	The EAC noted that the water requirement for the proposed expansion project is estimated 1447 m^3/day, which will be sourced from Asansol Municipal Corporation. Application for additional water supply has been submitted to Asansol Municipal corporation dated 03.08.2022. In view of the same, the EAC advised PP to submit the desired water permission from the Competent Authority for further consideration of the project.	• Currently water supply permission has been obtained from Jamuria Municipality vide letter No. 429/JM dated 19.03.2012 for supply of water upto 600 KLD. • Application has been submitted for proposed expansion water requirement of 1447 KLD from Asansol Municipal Corporation vide request letter dated 03.08.2022 as Jamuria Municipality has now become the part of Asansol Municipal Corporation. • PP informed that the application of water supply is under process at AMC. • Letter for assurance of water supply has been issued vide Ref No. 236/PN/ENG/2023/ dated 26.05.2023.
(vi)	The Committee deliberated on the public hearing issues along with action plan	Revised action plan to address PH issues has been submitted and updated at para 36.2.14 above.

S.No.	Queries	Reply by the PP
	submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.	
(vii)	The Committee deliberated on the baseline data and observed that the PM10, PM2.5 and noise levels recorded are way too high. PP shall submit the justification along with the mitigation measures that will be undertaken to minimise the same.	The high value of PM10, PM2.5 and Noise Levels is mainly because of the nearby industries. There are various industries in the vicinity, some of the major industries are: ➢ Gagan Ferro Tech Limited :- 0.06 km (S) ➢ RAIC Integrated Sponge and Power ltd. :- 0.3 km(SW) ➢ Shyam Sel CPP :- 0.6 km (WNW) ➢ Maan Steel :- 0.7 km (WSW) ➢ Rajshree Iron :-1 km (W) ➢ Giridhan Metal Pvt Ltd :- 1.2 km (W) ➢ Shivam Dhatu :- 1.3 km (SW) ➢ GMPL Ferro :- 1.5 km(W) ➢ Damodar Ispat :- 1.8 km (W) ➢ Gajanan Iron pvt ltd :- 2.75 km (WSW) ➢ Satwik Cement Factory :- 3 km (SW) ➢ Kamdhenu Cement Plant :- 3.2 km (SE) ➢ Bikash Kedia Steel Factory :- 9.3 km(W) ➢ Bhandari Automobile :- 9.4 km (SSE) ➢ Shree Shyamjee Steel :- 9.62 km (SSE) For minimizing the emission of PM10 and PM2.5, Electro Static Precipitator (ESP) will be provided to bring down the PM to 50 mg/Nm3 for DRI Rotary Kilns and 30 mg/Nm3 for Power plant and Sinter Plant. Fume extraction system with bag filters will be provided to treat the flue gases from Steel Melting Shop (SMS) and Ferro Alloy Plant. Apart from that All internal roads will be made Pucca. Avenue plantation will be developed on both sides of village roads and internal roads. For control of Noise levels, thick Greenbelt will be provided in periphery and more in the direction of school. DGs will be provided silencers. All machinery will be manufactured keeping in view of the MOEF&CC/OSHA standards on Noise levels. The

S.No.	Queries	Reply by the PP
		Ambient Noise levels will be within the standards prescribed by MOEF&CC, GOI vide Notification dated 14-02-2000 under the Noise pollution (regulation & control) Rules, 2000 i.e. ambient noise levels will be less than 75 dBA during day time & less than 70 dBA during night time.
(viii)	The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.	• 3 villages have been proposed to be adopted namely Hijalgora, Nandi and Ikra. • Development works will be done in these villages in consultation with local authority. Important works to be done in the proposed villages by the proponent are :- ➢ Construction and Maintanance of village Roads ➢ Providing Drinking Water Facilities to villagers ➢ Providing Solar lights on the roads ➢ Establishment of 3 Community halls each in three villages Providing Training to start business ➢ Building Community Toilets separately for male and female in all three villages • Total INR 2.8 Cr will be spent for this purpose. • All the activities will be completed within 2 years
(ix)	A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.	• There is a seasonal Naala/natural drainage in north of the Project site at approx 800m. • There will not be any discharge of waste water outside the premises. • Effluent from power plant will be treated in ETP and will be recycled inside power plant. • Sanitary wastewater will be treated in STP and will be used for greenbelt dust suppression. • The rainwater will be collected using gradient drainage into RWH tank and the rainwater will be utilized for irrigation and greenbelt as per availability. • Greenbelt will be developed on area of 5.92 ha to retain/conservation the topsoil and to stop the soil erosion. • All the open and undisturbed area will be developed as a lawn and also the grasses will be developed all along the greenbelt to stop soil erosion and retain the soil moisture of the land.

S.No.	Queries	Reply by the PP
		• Regular water sprinkling will be done on other open area to avoid the fugitive emission.
(x)	There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.	Layout plan, Landscape development Plan and Contour Plan as per suggestion of Hon'ble EAC members has been submitted**.**
(xi)	In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.	Agreed.

36.2.22 Based on the above submission of PP, the proposal was reconsidered during 36th meeting of the EAC for Industry-I sector held on 7th June, 2023. The deliberations and recommendations of EAC are as follows:

Written representations:

36.2.23 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 07.06.2023 through email dated 07.06.2023 submitted the following information:

Sl. No.	Issue raised by EAC	Reply of PP

1.	PP should submit an affidavit for construction of three community halls in nearby villages within 6 months from the date of grant of EC	Affidavit dated 07.06.2023 w.r.t timelines for construction of community halls in nearby villages as per the public hearing commitment is submitted.
2.	PP should submit revised engineering laypout plan with area statement mentioned.	Revised engineering layout plan with area breakup details is submitted.
3.	PP shpuld submit power consumption details w.r.t. all units.	Total power requirement for the project after expansion will be 53.5 MW. Power consumption details alongwith calculation is submitted.

Deliberations by the Committee

36.2.24 The Committee noted the following:

1. The instant proposal is expansion in existing Sponge Iron Plant (2x100 TPD DRI Kiln) by addition of 350 TPD DRI Kiln for production of Sponge Iron (Existing (60000 TPA) + Expansion (1,05,000 TPA)), MS Billets Production of 1,35,000 TPA with installation of 3 x 15 Ton IF, Rolling Mill of 1,20,000 TPA, Sinter Plant of 90,000 TPA, Ferro Alloy Plant for production of Fe-Mn (89,481 TPA) or Si-Mn (38,989 TPA)or Fe-Si (71,820 TPA)with 2x9 MVA and 2 x 12 MVA submerged Arc furnace and 22 MW Captive Power Plant {WHRB#13MW (2 x 10 TPH and 1 x 40 TPH) and AFBC#9 MW (1 X 40 TPH).
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The existing project was accorded Consent to establish vide letter no. NO-28813 dated 06.01.2006. Consent to Operate for the existing unit was accorded by WBSPCB vide Memo No. 582-2N-16/2006(O) dated 10.08.2006. Validity of latest CTO is upto 31.03.2027. EC was not applicable as our project was established and operation before 2006.

6. The committee deliberated on the certified compliance report of earlier CTO submitted and found them to be satisfactory.

7. The total project area is 15.65 ha [Existing – 3.36 ha, Expansion – 12.29] which is a private land and is under the possession of the project proponent. Out of the total 15.65 ha, 8.08 ha has already been diverted for industrial use where as for remaining 7.57 ha, application has been submitted.

8. There is a seasonal Naala/natural drainage in north of the Project site at approx. 800m. The EAC is of the opinion that water body shall not be disturbed. Mitigation measures w.r.t. safeguarding the water body shall be implemented.

9. The existing water requirement is 190 m^3/day and is being sourced from Jamuria Municipality water supply. The water requirement for the proposed expansion project is estimated 1447 m^3/day, which will be sourced from Asansol Municipal Corporation. PP informed that the application of water supply is under process at AMC. Letter for assurance of water supply has been issued vide Ref No. 236/PN/ENG/2023/ dated 26.05.2023. The EAC deliberated on the water requirement and the water balance diagram submitted by the project proponent and found it satisfactory.

10. The Committee has found that the baseline data and incremental GLC due to the proposed project and is of the opinion that mitigation measures submitted to minimise the levels of PM_{10}, $PM_{2.5}$ and noise levels shall be strictly implemented.

11. The PP has submitted that existing greenbelt is developed in 1.12 ha which is about 33 percent of total existing project area .i.e. 3.36 ha with total 2800 No's trees. Proposed greenbelt will be developed in 4.8 ha which is about 39.05% of the expansion project area .i.e. 12.29 ha. Thus total of 5.92 ha area (37.82% of total project area) will be developed as greenbelt after expansion. Total no. of 12000 trees will be planted for expansion project. PP has assured that they will plant the balance trees in upcoming monsoon season and affidavit regarding the same has been submitted. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that as committed, the greenbelt shall be completed in the coming monsoons of 2023.

12. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

13. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

14. The Committee deliberated on the reply of the ADS submitted by the project proponent and found it satisfactory.

15. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.

16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

17. EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

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

Recommendations of the Committee:

36.2.25 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 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 based on project specific requirements:

A. Specific Condition:

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iii. The PP shall complete conversion of proposed land for industrial purpose prior to commencement of project.

iv. There is a seasonal Naala/natural drainage in north of the Project site at approx 800m. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

v. Mitigation measures submitted to minimise the levels of PM_{10}, $PM_{2.5}$ and noise levels shall be strictly implemented.

vi. The water requirement of 1447 m^3/day for the expansion project shall be obtained from Asansol Municipal Corporation after obtaining necessary permission from the Competent Authority. No ground water extraction is permitted. The estimated water consumption in

the industry is 4.4 m^3/tonne steel. The industry should make efforts to reduce this specific water consumption.

vii. Three tier Green Belt shall be developed in at least 33% of the project area in the forthcoming monsoons of 2023 with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

viii. All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 amounting to Rs. 712 Lakhs shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

ix. As committed, PP shall adopt 3 villages namely Hijalgora, Nandi and Ikra and undertake village adoption programme, prepare and implement the action plan to develop them into model villages. As submitted the construction of three community halls in nearby villages shall be completed within 6 months from the date of grant of EC.

x. The PP shall improve the housekeeping at the project site through a robust housekeeping plan.

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. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

II. 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 04 Nos. Continuous Ambient Air Quality Station (CAAQMS) 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 carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

iii. 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.

iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.

v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. 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.

x. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

xii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

xiii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.

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

xv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.

xvi. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.

xvii. The particulate matter emissions from the process stacks shall be less than 30 mg/Nm^3 and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.

xviii. Following additional arrangements to control fugitive dust shall be provided:

a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.

b. Proper covered vehicle shall be used while transport of materials.

c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

xix. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.

xx. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.

xxi. The 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.

xxii. Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m3 for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.

xxiii. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

xxiv. During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.

xxv. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m^3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxvi. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.

xxvii. Low NOx Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

xxviii. The industry shall place in public domain information on the total volume gas exhausted through its chimneys per annum, m^3/annum and the average concentration of dust in the exhaust gas, mg/m^3.

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 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. 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. Water meters shall be provided at the inlet to all unit processes in the plants.

v. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.

vi. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

vii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.

viii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

ix. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

x. Air Cooled condensers shall be used in the captive power plant.

IV. Noise monitoring and prevention

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

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

iii. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

V. Energy Conservation measures

vi. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

vii. Restrict Gas flaring to < 1%.

viii. 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;

ix. Provide LED lights in their offices and residential areas.

x. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.

xi. Practice hot charging of slabs and billets/blooms as far as possible.

xii. Ensure installation of regenerative type burners on all reheating furnaces.

xiii. The project proponent shall provide waste heat recovery system on the DRI Kilns.

xiv. The dolochar generated shall be used for power generation.

xv. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.

xvi. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.

VI. Waste management

i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.

ii. Kitchen waste shall be composted or converted to biogas for further use.

iii. 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.

iv. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

vi. Solid waste utilization
   a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
   b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
   c. Used refractories shall be recycled as far as possible.

vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

viii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

ix. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.

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

iii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust

pollution from exposed soil surface.

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. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant

offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

vi. 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.

vii. 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.

viii. 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.

ix. 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.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) 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.

xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

xii. 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).

xiii. 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.

xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xvi. 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.

xvii. 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.

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Additional Item with the permission of the Chair

Agenda No. 36.3

36.3 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.

[Proposal is placed before the EAC as per the Order of Hon'ble NGT dated 20.03.2023 in the matter of Appeal No. 21 of 2022/EZ [I.A. No. 167/2022/EZ] and Others titled Prafulla Samantray Vs. Union of India & Ors. Regarding]

[Proposal No. IA/OR/IND/74396/2018; File No. J-11011/524/2017-IA.II (I)]

36.3.1 The Environment Clearance was granted to M/s. JSW Utkal Steel Limited [JSW USL] by the Ministry vide letter No. J-11011/524/2017-IA.II (I) dated 11.04.2022 for setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive Plant Near Paradeep Jagatsinghpur district, Odisha by M/s. JSW Utkal Steel Limited. The project being interlinked with the setting up of an "All- weather, Multi cargo Greenfield Captive Jetty (ies) of handling capacity of 52 MTPA at Jatadhari Muhan River, district Jagatsinghtpur, Orissa", for which the Environment Clearance was granted by the Ministry of Environment, Forest and Climate Change vide letter dated 12.04.2022 to the Project Proponent (M/s. JSW Utkal Steel Limited).

36.3.2 Appeals vide 21-22 of 2022 titled Prafulla Samantray Vs. Union of India & Ors. was filed before the Hon'ble National Green Tribunal (Eastern Zone), challenging the EC granted dated 11.04.2022 by the Ministry. The Environment Clearance for setting up of the ISP and Cement grinding unit was challenged in Appeal No. 21/2022 and the Environment Clearance dated 12.04.2022 for setting up the Captive jetty was challenged in Appeal No. 22/2022 before the same Bench. Both the appeals were connected and were heard together at length during the proceedings. However, the Hon'ble NGT, vide its final order and judgment dated 20.03.2023 has allowed the Appeals and suspended the Environment Clearance granted for both the projects. Accordingly, Hon'ble NGT has remitted the matter to the MoEF&CC for fresh appraisal and decision by MoEF&CC in the light of observations made in the judgement. The issues highlighted by the Hon'ble NGT are as follows:

Quote:

Para 35 of the Hon'ble NGT Order: On due consideration, we are of the opinion that recommendation of the EAC without express consideration of following issues are vitiated

a. Cumulative EIA saw the light of the day for the first time after the public hearing

b. Permissibility of sourcing water from Mahanadi when drinking water is scarce has not been duly evaluated. The observation with regard to scarcity of water can be seen in the minutes of the meeting dated 18.05.2021. The recommendation accepting the contra stand of the PP is not based on independent evaluation.

c. Jetty is located within 500 meters of the Paradeep Port which is unnecessary as opined in the report submitted by Ms. Meena Gupta earlier.
d. Paradeep is polluted industrial area.
e. The SIA has been conducted later and was not part of public hearing.
f. The project by Posco was abandoned and was adversely commented upon by this Tribunal vide order dated 30.03.2012 in Appeal No. 08/2011 which aspect has not been examined.
g. Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted.

Para 36 of the Hon'ble NGT Order: We are conscious that the project involves huge investment. At the same time, principle of sustainable development cannot be ignored. Apart from significant issue of public hearing, important issue of location of the project close to polluted area, jetty being unnecessarily close to an established port, huge water being taken from the river which may affect drinking water needs and flow of the river are important issues which need express consideration.

Para 37 of the Hon'ble NGT Order: Matter will need fresh appraisal by the EAC by reasoned consideration and fresh decision by MoEF&CC.
Unquote.

36.3.3 In compliance to the order of the Hon'ble NGT dated 20.03.2023, the aforesaid project along with the observations and directions of the Hon'ble NGT, was placed before the Expert Appraisal Committee (EAC) of Industry- 1 sector during its 26th meeting held on 17th April 2023. The Project proponent has attended the EAC meeting and informed the EAC that after the judgement of Hon'ble NGT, the activities are stopped and there are no activities at the project site.

36.3.4 The Committee deliberated on the directions issued by the Hon'ble NGT along with its concerned issues and accordingly, the opinions of the member present during the meeting were deliberated along with the representation of the Project Proponent on the said points. The Committee was of the view that the concerns raised by Hon'ble NGT needs to be addressed more intensely and systematically and Environment Clearance dated 11.04.2022 needs to be revisited. For the same, it is imperative to constitute a Working Group under EAC (Industry-1 Sector).

Recommendations of the 26th EAC Meeting:

36.3.5 In view of the foregoing and after detailed deliberations, the EAC decided to constitute a Working Group under EAC (Industry-1 Sector) to look into the aspects of the observations made by the Hon'ble NGT comprising of following members:

i. Dr. Jai Krishna Pandey, EAC Member (Industry 1 Sector)
ii. Dr. S. Ranganathan, EAC Member (Industry 1 Sector)

iii. Dr. E V R Raju, EAC Member (Industry 1 Sector)
iv. Dr. Hemant Sahasrabuddhe, EAC Member (Industry 1 Sector)
v. Dr. Sandeepan BS, Scientist B-Representative of MoEF&CC-For assisting the Working Group

The EAC is of the view that the Working Group shall:

1. Examine all the necessary documents pertaining to the project in the light of the observation of Hon'ble NGT order dated 20.03.2023.
2. The Working Group shall also look into the reports and issues deliberated during the previous appraisal of the project based on which the instant proposal was recommended for grant of EC.
3. The Working Group shall also take into consideration the representations made by the Project Proponent and shall be called upon for any clarification required in the matter.
4. The report of the Working Group shall be submitted at the earliest for further consideration of the EAC (Industry -1 Sector).

36.3.6 Accordingly, the Working Group has convened three meetings, for five days, first one on 20/04/2023 [Through Video conferencing mode], the second meeting on 26/04/2024 [Through Video conferencing mode] and the third during 2-4 May 2023 [Through Physical mode at MoEFCC, New Delhi]. The Working Group deliberated in detail on various issues mentioned in the Hon'ble NGT order dated 20.03.2023. The Working Group identified the documents required for addressing the directions of the Honourable NGT. Upon receipt of various documents from MoEFCC for addressing the directive of the Honourable NGT, the working group made detailed deliberations on documents findings. The Working Group has given an opportunity to the PP to make a presentation on the project and display drone video of the Project site and surroundings.

36.3.7 Documents/ information relating to the Hon'ble NGT case, provided by MoEFCC were reviewed by the Working group and noted that the then EAC has gone through the entire appraisal process and observed that there were three EAC meetings convened regarding ToR application and five EAC meetings convened regarding EC proposal. The working Group has gone through the documents submitted by the Project proponent and the Minutes of the then EAC meetings and after detailed deliberations, agreed with the observations/recommendations made by the then EAC in various meetings.

36.3.8 **Appraisal by the then EAC for Terms of reference (ToR) :** The Working group noted that the then EAC has gone through the entire appraisal process and observed that there were three EAC meetings convened w.r.t. ToR proposal. The details are as below:

(i) The working group noted that the Project proponent submitted application vide proposal no. IA/0R/1ND/70478/2017 on 25.10.2017 for Terms of reference (ToR) for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee (Industry-l) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by

MOEFACC vide OM No. J-l10I3/41/2006-lA. II(I), dated 24th December, 20l0. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application in the prescribed format (Form-I) and the pre-feasibility report giving full details of the project (comprehensively for the integrated/ inter linked projects as also for the particular component, sector specific). The Ministry after accepting the recommendation of the EAC (lndustry-1) returned the proposal in the present form and advised the PP to submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/interlinked projects as also for the particular component, sector specific) in the prescribed format vide letter dated 5/12/2019.

(ii) The project proponent had submitted the revised application again vide proposal no. IA/OR/1ND/74396/2018 on 13.08.2018 for ToR for undertaking detailed EIA study as per the EIA, Notification, 2006. The project was considered for ToR in 35th Meeting of EAC held on 18th – 19th September, 2018 wherein it was decided that sub-committee comprising of EAC members and Officer concerned with the subject matter would undertake a site visit and thereafter the proposals would be considered by the EAC for grant of ToR. Accordingly, sub-committee undertook a site visit during 29-31st January, 2019 and submitted its report to EAC. After accepting the recommendation of EAC (Industry – I), in 4th meeting of the EAC (Industry-I) held during 20-22nd February, 2019, the Ministry accorded specific ToRs, in addition to the standard ToR's and Sector Specific ToR's for carrying out detailed EIA/EMP. The Ministry, after accepting the recommendation of EAC, accorded the ToR to the PP vide Letter dated 19.03.2019 for carrying out detailed EIA/EMP for the project.

36.3.9 **Appraisal by the then EAC for Environmental Clearance (EC):**

The Working group noted that the then EAC has gone through the entire appraisal process for grant of EC and observed that there were Five EAC meetings convened w.r.t. EC proposal. The details are as below:

1st EAC appraisal for EC: M/s. JSW Utkal Steel Limited has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 04/03/2021 along with copy of EIA/EMP report and Form- 2 seeking Environmental 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 appraised at Central level. The proposal was considered by the EAC (Industry 1) in its 32nd meeting of the EAC (Industry-I) held on 15th-17th March, 2021. However, the project proponent vide email dated 16/03/2021expressed 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.

2nd EAC appraisal for EC: Again M/s. JSW Utkal Steel Limited has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 05/05/2021 along with copy of EIA/EMP report and Form 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. Subsequently, the proposal was considered by the EAC (Industry 1) in its 36th meeting held on 18-19th May, 2021. The EAC has taken cognizance of the issues raised in the public consultation dated 31/01/2020 and 07/02/2020 alleging several shortcomings in the public hearing held for the project on 29/12/2019; and report of District Magistrate on public consultation besides the EIA-EMP submitted by the PP. In view of the foregoing and after deliberations, the EAC recommended to return the proposal in its present form to address number of shortcomings as enumerated in the MoM of 36th meeting of the EAC (Industry-I) held on 18-19th May, 2021.

3rd EAC appraisal for EC: Again M/s. JSW Utkal Steel Limited has 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 13th – 14th September, 2021. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings. After detailed deliberations, the Committee recommended to return the proposal in its present form to address the observations enumerated at para no. 44.8.25 of MoM of 44th meeting of the EAC (Industry-I) held on 13 – 14th September, 2021, with respect to the public representations, the Committee recommended to seek the views of Odisha Pollution Control Board and the PP.

4th EAC appraisal for EC: Again 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. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings; report submitted by Odisha Pollution Control Board on 11/10/2021 on public consultation/representations and response of PP; and various representations received by the EAC from different stake-holders and the PP's reply to them. In view of the foregoing and after detailed deliberations, the EAC deferred the consideration of the proposal and sought additional information from the PP.

5th EAC appraisal for EC: Based on the replies submitted by PP to the queries raised by the EAC in its earlier meeting/s the proposal was considered in 53rd meeting of Expert Appraisal Committee (Industry-1) held on 10-11th February, 2022. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings and requirements. In view of the detailed deliberations, the EAC 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.

Based on the recommendation of EAC, the MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1) has granted the Environment Clearance for 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 proposal of M/s. JSW Utkal Steel Limited under the provisions of EIA Notification, 2006 subject to the specific conditions and general conditions and other mitigation measure, vide EC Identification No.EC22A008OR135518 dated 11-04-2022.

36.3.10 The aforesaid project along with the observations and directions of the Hon'ble NGT, and the finding/recommendations were presented by the Working group before the Expert Appraisal Committee (EAC) of Industry- 1 sector in 31st meeting held on 15th – 16th May, 2023.

Deliberation by the Committee in its 31st meeting held on May 15-16, 2023.

36.3.11 The Committee, after detailed deliberations, noted the following:

(i) The EAC has gone through the Working Group's findings and deliberated in detail each issue highlighted by the Hon'ble NGT in its order dated 20.03.2023.

(ii) The Committee noted that the then EAC has deliberated the project as per provisions of the EIA Notification, 2006 for the instant ISP project and noted that there were three EAC meetings convened for the appraisal of ToR application and five EAC meetings were convened for the appraisal of EC proposal. The working Group has gone through the documents and the Minutes of the EAC meetings and after detailed deliberations, agreed with the observations/recommendations made by the then EAC in various meetings as per provisions of the EIA Notification, 2006.

(iii) The Committee has deliberated in detail the issues highlighted at Para nos. 35, 36 and 37 of the Order by the Hon'ble NGT and the observation of the working group in each point and noted the following:

a) **Cumulative EIA saw the light of the day for the first time after the public hearing:** Based on the documents examined and letter of OSPCB dated 03.07.2020 to MoEFCC, it is confirmed that the Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing.

It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the

appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/ variation between the "Integrated EIA Report, November 2019" (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.

b) **Permissibility of sourcing water from Mahanadi:** As per the review of documents this Working group noticed that WRD, Orissa State Govt. is the nodal agency responsible for managing and allocation of the water resources in the state of Odisha. It is based on the WRD water allocation to the PP, the earlier EAC had accepted the sourcing water from Mahanadi. However, the PP submitted that, Post grant of Environmental clearance, Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant. PP shall submit documents to establish water balance in the new source at Chowdhurigada and confirm the availability of water based on studies carried out by WRD of Odisha. All ways should be explored by the PP for reducing water usage in the changing environment.

c) **Jetty is located within 500 meters of the Paradeep Port:** This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The Infra I sector finding may be included in this section.

d) **Paradeep is polluted industrial area**: In the EIA-EMP report PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". Therefore, this matter needs to be considered by the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA.

e) **The SIA has been conducted later and was not part of public hearing:** SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the then EAC in its 36th meeting held during 18-19th May, 2021 observed that R&R Plan based on Public Hearing, SIA and as per Odisha Governments R&R Plan Preparation Guidelines has not been furnished. Based on the recommendation of the then EAC, SIA for R&R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the

report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and accordingly specific conditions were included in the recommendations of the EAC. However, the EAC may further deliberate on the finding of the Social Impact Assessment (SIA) study and may further suggest Social Impacts Mitigation Action Plan (like Community Development Plan/ Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project.

f) **The project by POSCO was abandoned and was adversely commented upon by this Tribunal:** The EAC has gone through the Working Group inference in each point on the order of NGT dated 30.03.2012 and the EAC opines that this direction of the Hon'ble NGT would not be relevant and applicable now.

g) **Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted:** The conditions stipulated in the EC granted to POSCO (in Jan 2007and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, fresh appraisal by the EAC may be further deliberated for additional EC conditions, if any, w.r.t. Decarbonisation, Green buildings, Supply of drinking water to the neighbourhood etc.

(iv) The Committee noted that PP has reported that the Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant.

(v) The Committee also noted that in the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. Further, it can be seen in Minutes of the Meeting of 52nd EAC, the PP has responded against a representation dated 27/01/2022 that "The proposed project site is 12 Km SE of Paradip and is not a part of any Severely Pullulated area as notified by CPCB." The Committee has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". In this regard, the Committee opines that this matter needs to be apprised as per OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA.

36.3.12 The Project proponent has also attended the EAC meeting on 16th May 2023.

Recommendations of the 31st EAC meeting held on 16th May 2023

36.3.13 The EAC deliberated on point wise suggestions/recommendation of the Working group and accepted the findings/recommendations. However, the following additional information/clarifications may be sought from the PP and accordingly the proposal may be placed before the next EAC meeting for further deliberation:

i. The PP may be asked to submit documents to establish water balance for the new source at Chowdhurigada and confirm the availability of water based on scientific study based on the change of scenario.

ii. The PP is further advised to formulate an action plan to further reduce the 'Water footprint' of the company by way of minimization, recycling, conservation, alternate source of water etc., as per new scenario.

iii. The PP is further advised to prepare a comprehensive report on the basic water requirement in the riparian region (domestic and agriculture demand). The PP shall be directed to draw up a detailed action plan for the water distribution system to ensure the adequate water supply to all villages in the vicinity of a radius of 2/5/10 Km of the Plant site with pipeline water supply under the proposed CSR activity. The PP shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers.

iv. The PP is to submit a detailed report on how the Environment Management Plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/ CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry's OM of 2019 on CEPI/SPA.

v. In the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". Therefore, this matter needs to be considered as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA and PP needs to submit the detailed action Plan as per the Ministry's OM of 2019.

vi. The PP is advised to submit a SIA study finding and the Action Plan (Community Development/ Engagement Plan/Social Mitigation Plan) formulated to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project be submitted to the EAC.

vii. The PP is advised to enhance the funds on social environment along with village adoption and its activities. The EAC is of the opinion that these action will significantly improve the quality of life and standard of living of the villagers living in the vicinity of project site.

viii. The PP may be asked to submit detailed reports/ Action Plans on Decarbonization program including plans for not letting out CO_2 into the atmosphere after calcination. CO_2 may be captured and treated appropriately. Water balance (including the villages) study;

implementing Sustainable developmental goals; waste recycling/utilisation with Circular economy principles; e-waste disposal as per Government guidelines; filling of earth material to raise the ground etc.

ix. The PP submitted that they will fill the entire site with dredged sand in order to safeguard the area from flood plains. In this context, the PP is advised to submit a detailed engineering drawing and design for the said reclamation.

36.3.14 The 31st EAC deliberated the issues in depth and is of the view that the above-mentioned information may be sought from the PP. Afterwards, the proposal may be placed before the EAC for further deliberation after receipt of the information from the PP.

Deliberations and Recommendations of the 33rd EAC meeting held on 30th May 2023

36.3.15 The PP, vide letter dated 26th May 2023, has submitted response to the queries as sought by the EAC held on 16th May, 2023, accordingly the project was considered in the Expert Appraisal Committee (EAC) of Industry- 1 sector in 33rd meeting held on 30th May, 2023.

36.3.16 The Committee, after detailed deliberations, noted the following:

(i) The EAC has gone through the point wise response of the PP regarding the observation of 31st EAC.

(ii) The Committee noted that further clarification/information may be provided by PP in following points:

a) In all Figures/Maps the location and boundary of the proposed JSW plant should be shown.

b) Preferably Use same units everywhere w.r.t. MCM, Cusecs, Litres

c) More information/ details should be provided about ponds of nearby villages.

d) The water consumption per tonne of steel may be revisited and details must be provided.

e) The response to query of point number 5 of 31st EAC (Regarding the detailed action Plan as per the Ministry's OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA is inadequate. PP need to provide adequate reply.

f) The PP should revisit the environmental responsibility/CER activities and amount allocated for it. PP should specifically try to develop all possible modern facilities in their proposed hospital.

g) The response to the query to the road map for Decarbonisation, Sustainable development, Circular economy need to elaborated adequately.

h) The details w.r.t. greenbelt development according to Ministry's OM of MoEFCC dated 31-10-2019 need to be submitted.

i) The detailed engineering drawings of retaining wall should be provided.

Recommendations of the 33rd EAC meeting held on 30th May 2023

36.3.17 The EAC deliberated on the point wise response of the PP. After the detailed deliberation EAC decided to ask from Project Proponent revised comprehensive report incorporating all observations (a to i) of EAC. Accordingly, the proposal may be placed before the next EAC meeting for further deliberation.

36.3.18 The PP, vide letter dated 5th June 2023, has submitted response to the queries as sought by the earlier EACs, accordingly the project was considered in the Expert Appraisal Committee (EAC) of Industry- 1 sector in 36th meeting held on 7th May, 2023.

36.3.19 The project proponent submitted the reply to the points raised by the EACs as follows

Sl. No.	Point raised by 31st EAC	Reply by the PP
1.	Establish water balance for the new source at Chaudhurygada and confirm the availability of water based on scientific study based on the change of scenario	• The location of intake of water has been changed from Jobra barrage to u/s of Chowdhury Gada ISS and recommendation from WRD, GoO has been accorded. • Water demand has been reduced from 99.8 Cusecs to 60 Cusecs i.e. about 40% reduction. Based on this water requirement the water availability study has been conducted at the revised location through independent expert agency and found that the Chaudhurygada ISS with pondage of 51 MCum is adequate to meet the water requirement of ISP, drinking water to villages and other consumers in the area including future demand on a sustainable basis
2.	The PP is further advised to formulate an action plan to further reduce the 'Water footprint' of the company by way of minimization, recycling, conservation, alternate source of water etc. as per new scenario	• The total water requirement for the proposed project has been revisited & revised and the water balance diagram has been prepared based on Best Industry Practices. The water consumption envisaged for the proposed project of JSWUSL was already reworked on the basis of reduced water consumption of 5,127 m3/hr (50.3 cusecs). Since the EC of the proposed project is presently

		being revalidated by MoEFCC, JSWUSL seeks to reflect the reduction in the water consumption in the revalidated EC.
3.	The PP is further advised to prepare a comprehensive report on the basic water requirement in the riparian region (domestic and agriculture demand). The PP shall be directed to draw up a detailed action plan for the water distribution system to ensure the adequate water supply to all villages in the vicinity of a radius of 2/5/10 Km of the Plant site with pipeline water supply under the proposed CSR activity. The PP shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers	• Already addressed in Sl. No i and ii
4.	The PP is to submit a detailed report on how the Environment Management Plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry's OM of 2019 on CEPI/SPA	• The mitigation measures proposed by JSWUSL as part of the EC already conform to the Action Plan formulated by OSPCB for Paradip PIA
5.	In the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of	- The inadvertent omission of SPA within 10 km radius was critically reviewed and found that the conditions stipulated in the EC complies with 16 out of the 18 conditions for CPA/SPA as per OM of 2019.

	the said project area is overlapping with the demarcated SPA of Paradeep". Therefore, this matter needs to be considered as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA and PP needs to submit the detailed action Plan as per the Ministry's OM of 2019	- For development of greenery in more than 40% of project area, JSW has identified 85 Ha of such land located in six blocks - These all are Govt land as per the RoR but status of the land is Forest land as per the DLC Report. - This land cannot be leased to JSW without forest diversion. - However, for the purpose of plantation JSW will propose State Govt to enter into an MoU to carry out plantation in order to meet the requirements under the OM and Forest transfer condition. - The selection of species will be in consolation with the State Forest Dept, experts including Ecologist & ICFRE and the maintenance cost for stipulated period will be met by JSW. - JSW shall not use the land for any purpose other than green belt. While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs. 657.05 Crore from Rs. 196.05 Crore.
6.	The PP is advised to submit a SIA study finding and the Action Plan (Community Development/ Engagement Plan/Social Mitigation Plan) formulated to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project be submitted to the EAC	Based on the socio-economic impact assessment, needs assessment and public consultations, JSW USL has prepared a detailed peripheral development plan spread over 7 years, that includes substantial improvement in areas such as - Skill Development, - rural community Infrastructure, - Health Care, - Drinking Water, - Sanitation, - Livelihood, - Agriculture, - Education, - Sports Promotion, - Promotion of culture and tourism,

		- Environment & Bio-Diversity conservation, - social security for old-age etc."
7.	The PP is advised to enhance the funds on social environment along with village adoption and its activities. The EAC is of the opinion that these action will significantly improve the quality of life and standard of living of the villagers living in the vicinity of project site	While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to increased to Rs. 657.05 Crore from Rs. 196.05 Crore.
8.	The PP may be asked to submit detailed reports/ Action Plans on Decarbonization program including plans for not letting out CO2 into the atmosphere after calcination. CO2 may be captured and treated appropriately. Water balance (including the villages) study; implementing Sustainable developmental goals; waste recycling/utilisation with Circular economy principles; e-waste disposal as per Government guidelines; filling of earth material to raise the ground etc.	• JSWUSL will adopt the strategy formulated by Ministry of Steel for reduction of carbon footprint i.e. Nationally Determined Contributions (NDCs) for iron and steel sector to MOEF&CC to reduce GHG emission by adopting clean and green technologies. Currently, as per the NDCs of the steel sector submitted to MoEF&CC, average CO_2 emission intensity of the Indian steel industry was projected to reduce from 3.1 tons CO_2/tcs in 2005 to 2.64 tons CO2/tcs by 2020 and 2.4 tons CO_2/tcs by 2030 (i.e. approx. 1% per year). To achieve the target of 2.4 tons CO_2/tcs the Ministry of Steel has recommended the adoption of Best Available Technologies (BATs). • Further, JSW Steel has set a target of achieving specific carbon emission target of 1.95 tCO2 by 2030 and 1.17 tCO2 by 2050. These targets and trajectory have been derived based on International Energy Agency (IEA) Sustainable Development Scenario (SDS). On commissioning the production facilities, JSWUSL will be integrated with JSW Steel, and these targets will be applicable to JSWUSL as well.

9.	The PP submitted that they will fill the entire site with dredged sand in order to safeguard the area from flood plains. In this context, the PP is advised to submit a detailed engineering drawing and design for the said reclamation.	Reclamation of land would be carried out in 3 categories • Category 1 : Exposed to offshore wave, Rubble mound revetment armored with Acropod • Category 2 : Exposed to water basin area, • earth bank using sand material from adjacent area • Category 3 : Boundary line of steel plant, planted • earth bank using sand material from adjacent area JSWUSL has provided detailed engineering and design for reclamation of land area using surplus dredged sand
Sl. No.	**Point raised by 33rd EAC Meeting**	
1	In all Figures/Maps the location and boundary of the proposed JSW plant should be shown.	The location and boundary of the proposed plant site is shown in the relevant maps in the Comprehensive Responses to the EAC Industry-1 Observations submitted.
2	Preferably Use same units everywhere w.r.t. MCM, Cusecs, Litres	The same has been complied with in the Comprehensive Responses to the EAC Industry-1 Observations. The units have been provided in Cusecs and equivalent values in MCum are given in brackets.
3	More information/ details should be provided about ponds of nearby villages.	JSW has currently identified 110 existing community ponds which will be rejuvenated by desilting and strengthening the bond and the water collected will be led to ground water recharge. The details of identified ponds, village-wise is submitted
4	The water consumption per tonne of steel may be revisited and details must be provided.	JSWUSL has drawn up a revised action plan for water conservation, with adoption of best water management practices: adoption of ZLD and rainwater harvesting systems. The water demand for JSWUSL has been reduced from earlier 99.8 Cusecs to 50.3 Cusecs (From 6.2 to 3.4 m3/ton of crude steel) for ISP including captive jetties. The revised water balance diagram submitted.
5	The response to query of point number 5 of 31st EAC (Regarding	The action plan as drawn up by JSWUSL complies to the 18 points applicable to CPA/SPA

	the detailed action Plan as per the Ministry's OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA is inadequate. PP need to provide adequate reply.	in line with OM of MoEFCC of 31st Oct 2019 has been submitted.
6	The PP should revisit the environmental responsibility/CER activities and amount allocated for it. PP should specifically try to develop all possible modern facilities in their proposed hospital.	JSW revisited the environmental responsibility/CER activities and has enhanced the allocation to 657.05 Cr over a period of seven years. The details of the initiatives have been shown in the Comprehensive Responses to the EAC Industry-1 Observations. The details of the budget estimate (sector specific) is also given in the table.
7	The response to the query to the road map for Decarbonisation, Sustainable development, Circular economy need to elaborated adequately.	The above details as applicable to JSWUSL are presented in Comprehensive Responses to the 31st EAC Industry-1 Observations under reply to query (viii.).
8	The details w.r.t. greenbelt development according to Ministry's OM of MoEFCC dated 31-10-2019 need to be submitted.	Efforts were made to increase the existing 33% green belt within the project site by adding one extra row of planation covering 2-meter width all along the boundary which resulted into enhancement of 1% green belt. With the Green belt adjacent to project premises consisting 85 Ha (about 7%) and Green belt within the project premises consisting of 406 Ha (34%), greenery of 40% of plant area is being complied.
9	The detailed engineering drawings of retaining wall should be provided.	The detailed engineering drawings of retaining wall is submitted and deliberated by the EAC.

36.3.20 Unit wise make-up Water Requirement (As proposed earlier and revised)

Sl. No.	Consumers	Make-up water, cu m/hr		% reduction	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
1.	Raw material handling	300	300	0.0	-
2.	Sinter plant	60	60	0.0	-
3.	Pellet plant	600	500	16.7	Based on revised consumption data from equipment supplier
4.	Coke Oven By Product Recovery plant	900	850	5.6	Based on revised consumption data from equipment supplier

Sl. No.	Consumers	Make-up water, cu m/hr		% reduction	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
5.	Blast furnace	1405	900	35.9	The blowdown from the saturator will be treated for removal of ammonia and cyanide and further treated in a RO plat to recover water, which will be recycled within BF
6.	DRI	380	350	7.9	Based on revised consumption data from equipment supplier
8.	SMS	1160	980	15.5	Based on revised consumption data from equipment supplier
9.	Hot strip mill	1340	900	32.8	In order to produce special quality steel in HSM, DM water will be used as make up in Direct cooling water to control chloride in circulating water. The blow down from this system shall be treated in a RO unit to recover the water which will be recycled in HSM
10.	Plate mill	250	150	40.0	In order to produce special quality steel in Mills area,, DM water will be used as make up in Direct cooling water to control chloride in circulating water. The blow down from this system shall be treated in a RO unit to recover the water which will be recycled in Mills.
11.	LP mill	240	220	8.3	
12.	Cold rolling mill & tin plate	625	460	26.4	The wastewater containing acidic and alkaline streams shall be treated separately to neutralize the water. The treated wastewater shall be combined with oily effluent and treated in the BOD plant for removal of organics. The water will be further treated in a RO unit to recover water which will be recycled.

Sl. No.	Consumers	Make-up water, cu m/hr		% reduction	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
13.	Air Separation Plant	900	500	44.4	DM/soft water will be used to enhance COC in cooling towers.
14.	Chilled water plant	250	250	0.0	-
15.	Softening plant	260	260	0.0	-
16.	DM plant	970	900	7.2	Based on revised consumption data from equipment supplier
18.	DWTP (ISP+Jetty)	225	160	28.9	Revised basis of drinking water requirement from 225 l/p/d to 155 l/p/d
19.	Miscellaneous, Cement plant, LCP	355 (including greenery)	155	56.3	Treated water from STP is now proposed to be used for greenery in place of fresh water. Reduction in amount of water reserved for contingency for miscellaneous use. Cement
20.	Jetty	87	87	0.0	
	Total	10,307	7982	22.6	
A	**Recovery from CETP and MEE condensate**	(-) 1370	(-)1170	-	
B	**Recovery from dewatering of iron ore slurry**	-	(-)1500	-	
C	**Recovery from MEE condensate**	-	(-)235	-	
D	**Other Losses**	**(+) 363**	**(+) 50**	-	
	Net Make up water intake	**9300**	**5127**	44.87	

36.3.21 Compliance to CEPI Guidelines as per action plan of OSPCB for PIA (July 2020)

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
A	**Water: Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score**	
1	Conduct comprehensive wastewater audit for industries including run-off management	Not applicable. Storm water management has been evaluated by modelling to collect run off and pump it back to reservoir

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
2	Provision of water Recycling system	Extensive cascaded water recycling system has been proposed to ensure ZLD.
3	Complete utilization of treated water from ETP for different heads to minimize fresh intake water	ZLD system proposed for efficient use of water
4	Installation of desalination plant to reduce freshwater consumption	Adequate quantity of freshwater from Mahanadi has been assured by WRD for the project, without compromising on the allocation to priority consumers like drinking, irrigation and environment flow. Will be considered at a later stage if it becomes necessary.
5	Provision of adequate number of Settling Pits for all drainage networks and utilization of settled water for dust suppression and plantation.	Settling pits are proposed to capture storm water for settling solids if any and pump back the water to the reservoir, to conserve water.
6	Provision of a Sewage Treatment Plant for the port township	Proposed for the plant. The treated water will be recycled for plantation activity.
7	Provision of Centralized Automobile Servicing Center with an ETP facility. The treated effluent shall be reused in vehicle washing.	Incorporated near the Parking area. The water used for washing shall be treated and recycled. Dry washing of vehicles will be encouraged to save water.
8	Maintaining minimum stock of minerals like coal, iron ore, coke, etc. (optimize detention time) to reduce fugitive emission from these minerals. and stack height of storage of these minerals	All major raw materials will be stored in covered sheds and transported in closed conveyors/trucks to reduce fugitive dust emissions. Suitable ventilation systems with bag filters are proposed for junction houses and material handling operations.
9	Establishment of on-line monitoring station for water quality monitoring of River Mahanadi and online data transmission facility with SPCB and CPCB	On-line systems proposed for sea water discharge and individual ETPs and this condition is stipulated in EC.
10	Construction of water impoundment and rainwater harvesting structures	A large reservoir has been proposed to collect storm water or recycle during rainy seasons
11	Preparation of prefeasibility report and development of facility for central pooling of surplus treated	In the initial stages, the surplus water from slurry dewatering after treatment will be shared with IDCO to supply water to the

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
	effluent of PPL, IFFCO, ESSAR, IOCL and using the same for common cause i.e. road dust suppression, firefighting, industrial use etc.	industries. An MOU has been signed with IDCO for this purposes.
B	**AIR: "Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score"**	
1	All the conveyor belts within and connecting to the Port to be provided with sensor supported dust suppression arrangement	All conveyor belts shall be covered to avoid fugitive dust emissions. Bag filters will be provided to capture entrained dust at transfer points.
2	Deployment of vacuum type dust cleaning machine for internal and approach connecting roads	Paved roads with vacuum cleaning machines proposed to reduce dust emissions
3	Raw Material handling area needs to be fully mechanized	Incorporated in the design
4	Provision of wind barrier wall around pet-coke and provision dust suppression system in pet-coke storage are	Wind fence shall be provided for minor raw materials to reduce fugitive emissions.
5	Development of parking plaza	The movement of raw materials and finished products is mainly through sea routes. However, parking facilities with tyre washing systems are provided at critical cross over points to reduce fugitive emissions.
6	All stack yard shall be equipped with automatic water sprinkling system	Not applicable, as the raw materials are stored in covered sheds
7	Speed of vehicle engaged for intra transportation of PPT should be mechanically restricted through speed control	Speed of all vehicles shall be restricted to the limits indicated in Factory Act.
8	Provision of Concrete/ Bituminous road with drainage facility for all transportation road, internal road connecting mineral stack yards, with mechanized sweeping facility	Concrete roads are proposed within the plant. Mechanised vacuum facilities are proposed.

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
9	Establishment of an extensive air quality monitoring network (CAAQMS) for Paradeep Area	6 nos of CAAQMS are proposed surrounding the plant and connected to CPCB/SPCB
C	**Land: Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score**	
1	Provision of mechanized wheel washing facility having effluent treatment and recycling facility	Proposed
2	Storage of treated water of ETP for captive consumption in the process and gardening in the IOCL township	CETP of suitable capacity has been proposed to treat all wastewater and to ensure ZLD
3	Provision of composting plant for the port township	Proposed for canteen wastes.
4	Provision of briquetting mineral units within the port premises for utilization of mineral fines	All dust and sludge generated in the air and water pollution control facility shall be treated and recycled in sinter plant.
5	Promotion of industries within SPA, which uses waste products like fly ash, phosphor-gypsum, waste oil, and waste heat.	A 10 MTPA cement plant is being established to utilize waste products of steel making like fly ash and slag to produce cement. Feasibility of utilizing the wastes from other units od PIA will be examined for overall waste management.
D	**Other measures over and above what is recommended by OSPCB**	- Iron ore transportation through slurry pipeline - Movement of finished products like pellet, cement etc through sea. - Provision of dry FGD based DeSOx and ammonia based DeNOx for captive power plants. - MEROS equivalent high efficiency bag filters at Sinter Plant - Design target for APC less than 30 mg/Nm^3 particulate matter - Dry GCP in BF and BOF - Provision of CDQ in Coke Ovens and TRT in Blast Furnaces - Zero effluent discharge with water recovery from iron ore slurry - Utilization of fly ash and BF slag in captive cement grinding unit - 100 % utilization of steel slag as aggregates in construction

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
		- Vehicle Tyre washing system at all 4 gates of the plant - Paved roads with mechanized road sweeper - Construction of 4 lane metaled roads for smooth traffic movement

36.3.22 Compliance to the Ministry's OM of 31-10-2019 2019 on CPA/SPA areas

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
1.	Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	The stack emission details considered for the proposed ISP have been given in Appendix 2-3 of Common EIA Report (January 2022). All processes have been designed considering more stringent emission norms than the existing standard. The salient features considered in the project for the stack emissions are as follows: • Particulate matter emission from all stacks shall be less than 30mg/Nm3, BFG and BOFG shall be cleaned to achieve 10 mg/Nm3 and Sinter Plant waste gas emissions shall achieve 5 mg/Nm3 as stipulated in the EC. Further JSWUSL adopted the Best Available Technologies and the emission standards set for this project are stricter than 30 mg/Nm3 as mentioned below: • DR plant process stack shall have PM less than 10 mg/Nm3 • MEROS or equivalent technology shall be installed to control dioxin and furan emissions from sinter plant.
2	CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	• As mentioned in Section 6.1.2 of Common EIA Report (January 2022), Continuous emission monitoring system (CEMS) would be installed for 24/7 measurement of: i) PM for all DE stacks ii) PM, SO2, NOx and CO for all process stacks • The SCADA system would be based on client-server architecture and will comprise of Remote Terminal

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		Units (RTU), located at strategic locations for on-line field data collection and transmission to the central SCADA server. • There would be direct connectivity to OSPCB and CPCB servers for online data transfer via a splitter system.
3	Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.	The fugitive emission control measures adopted for the proposed ISP are elaborated in Section 2.13.1, 4.4.3 and 4.5.3 of the Common EIA Report (January 2022). The control measures proposed as part of the EMP are highlighted below: • All major raw materials shall be stored in covered shed. Minor raw materials and intermediate product stockpiles shall be enclosed with wind fence and water spray system shall be provided. • Covered conveyor transport from jetty to raw material handling yards and process units. • Pneumatic or covered truck transportation would be employed for the collected dusts from the dust catchers of various units. • Plant roads would be black topped & kept dust free by using industrial vacuum cleaners and water sprinkling at regular intervals. • Installation of tyre washing system at critical areas of the plant and at gates for incoming as well as outgoing vehicles to reduce the fugitive dust emissions. • Restriction of speed for vehicle movement within the plant
4	Transportation of materials by rail/ conveyor belt, wherever feasible.	• In an ISP, nearly 3 tons of raw material is required to produce one ton steel. As shown in Section 4.5.4 of Common EIA Report (January 2022), nearly 97% of raw materials would be transported by sea, rail, and through pipe. Only a maximum of 3% of locally available raw material shall be transported by Road. Iron Ore, a major raw material will be transported in slurry form through pipeline. • Major products like HR coils, pellet, cement will be moved through sea. Dispatch of critical steel products (like CRM) and delivery to local consumers will be through Rail/Road.

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		• The Internal movement of material shall be through closed conveyors.
5	Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).	As shown in Section 2.6.2 (Fuels and Chemicals) of Common EIA Report (January 2022), clean & sulphurised by-product fuel gases viz. BF gas, BOF gas and Coke oven gas shall be used in furnaces. • It will be supplemented with Propane/LPG for special applications. • Furnace Oil and LSHS shall not be used as fuel. LDO shall be used in Pellet Plant only for startup.
6	Best Available Technology may be used. For example, usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	As elaborated in Section 2.5 (Technology and process description of ISP) of Common EIA Report (January 2022), the steel manufacturing process would be based on the BF-BOF caster route which is globally accepted as the best available technology for steel making in ISPs. • The following Best Available Technologies as applicable for ISP would be implemented. o Coke Ovens would be equipped with by product recovery and Coke Dry Quenching system. o Sinter Plant would be equipped with MEROS equivalent technology as well as Sinter Cooler Waste Heat Recovery System o Blast Furnace would be equipped with Top Recovery Turbine and Dry Gas Cleaning System and BF slag will be used for cement making. o BOF would have Dry Gas Cleaning System o Coke oven gas based DRI plant would be installed. o 60% hot charging would be carried out at mills. o BF Slag and Fly Ash from CPP would be utilized for manufacturing Cement within plant premises. o Ammonia injection based DeNOx system and dry De SOx would be employed for captive power plant
7	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible	Efforts were made to increase the existing 33% green belt within the project site by adding one extra row of planation covering 2 meter width all along the boundary which resulted into enhancement of 1% green belt. With the Green belt adjacent to project premises consisting 85 Ha (about 7%) and Green belt within the project premises

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		consisting of 406 Ha (34%), greenery of 40% of plant area is being complied. JSWUSL also proposes to generate additional greenery through vertical gardening wherever possible
8	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc	As committed under socioeconomic development activities in Table 10-6 of Common EIA Report (January 2022), JSWUSL has already proposed to carry out urban plantation in 11 villages for plantation of 100,000 trees. Further, as per the FC conditions JSWUSL will carry out plantation in the adjoining 169.535 ha of forest land.
9	Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	As mentioned in the replies submitted against shortcomings pointed out by EAC (Ind 1) on 14.09.22 JSWUSL committed that all internal roads shall be of Concrete with a minimum 9 m width designed for 25-year life and to carry heavy loads. These roads will be maintained by mechanized cleaning. • All connecting roads shall be of bituminous type designed as per IRC guidelines considering the MSA value corresponding to the type and number of vehicles proposed in the roads.
10	Reuse/recycle of treated wastewater, wherever feasible	• As mentioned in Section 2.6.3 of Common EIA Report (January 2022), freshwater will be used in cascaded manner in different processes for effective utilisation. The Cooling towers shall have high COC, to minimise blowdown. Dedicated ETPs shall be established to treat the water and recycle it back, with a small portion blown down to CETP for treatment. The blowdown from cooling towers and ETPs shall be treated in CETP through RO-ZLD to recover water for recycle. The RO rejects in solid form shall be sent for TSDF. • 1,500 m3/hr of water recovered from iron ore slurry would be reused in the plant. Treated water from STP would be used for greenery development.

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		• The entire plant would operate on Zero Liquid Discharge principle to minimise fresh water intake.
11	Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting)	• As mentioned in Section 6.2 of Common EIA Report (January 2022), on-line continuous monitoring of pH, BOD, COD, TSS & Total Organic Carbon at CETP Inlet & Outlet would be carried out as per Guidelines for Water Quality Monitoring (MINARS/27/2007-08) by CPCB.
12	A detailed water harvesting plan may be submitted by the project proponent	• As mentioned in the replies submitted against shortcomings pointed out by EAC (Ind 1) on 14.09.2021, the plant layout has been firmed up considering rainwater drains all along the plant roads and these drains would be led to catch pits to settle the suspended solids. These catch pits would also be equipped with oil skimmers to remove Oil & Grease from the surface run off and settable solids. The water impounded in the catch pit 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 sea. • Rainwater beyond the plant area will be collected from natural drains and will be used in recharging the ponds provided for the purpose. The details of such ponds/wells is given in CSR activities, planned by JSWUSL.
13	Zero liquid discharge wherever techno-economically feasible.	• Addressed in Sl. No. 10.
14	In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	• As mentioned in Table 2-16 of Common EIA Report (January 2022), STP of about 4300 KLD would be installed to treat the sewage from ISP and Jetty and the treated sewage would be utilized for greenery development.
15	Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at	• The handling of process solid waste is addressed in Section 2.13.4 of Common EIA Report (January 2022) The salient features are as follows:

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
	designated locations approved by SPCBs/ PCCs.	• BF Slag and fly ash would be utilized for cement manufacturing within the ISP premises for which a 10 MTPA cement plant is envisaged. • Mill scale and sludge along with flue dusts would be recycled in the Sinter Plant • BOF slag would be processed in the Metal recovery plant for separation of metallics and the non-metallic part will be used partially in the Sinter Plant and the balance, after weathering/steam aging shall be utilized for making road, railway ballast, construction aggregate etc. • Envisages 100% utilisation of solid wastes without any stockpiling.
16	More stringent norms for management of hazardous waste. The waste generated should be preferably utilised in co-processing.	As mentioned in Section 2.13.4 of Common EIA Report (January 2022), hazardous wastes like BOD sludge and Coal Tar sludge shall be recycled in the Coke Ovens. Pickle liquor shall be recycled in ARP to recover acid for reuse. STP sludge and canteen wastes shall be composted and used as manure for greenery development. Used/waste oil shall be handed over to authorized used oil recyclers. Non reusable oils shall be incinerated, as mandated in EC. All other inorganic hazardous waste with no usage like (ZLD salt, chrome sludge etc) shall be handed over to authorized agency for disposal in TSDF
17	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	Shall be complied through agencies accredited by MoEFCC/CPCB/SPCB.
18	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times	While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs. 657.05 Cr from Rs. 196.05 Cr.

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
	for CPA in case of Environmental Clearance.	

36.3.23 **Additional Action Plan & Budget Under CER activity:** Action plan as per MoEF&CC O.M. dated 30/09/2020 (This is in addition to the amount of Rs. 196.05 Cr have been earmarked to address the issues raised during public hearing. In EC dated 11/04/2022)

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
VILLAGE ADOPTION PROGRAM								
Adoption of Villages to develop them as Model smart villages	Adoption of 10 Villages within 0-2 Km radius of project site. (Dhinkia, Gobindpur, Garakujanga, Noliasahi, Polanga, Bhuinyapal, Nuagan, Bayanalkandha, Panigadiakandha, Balitutha.)			Adoption of 6 Villages within 0-2 Km radius of project site (Abhaychandpur, Trilochanpur, Banapatakandha, Kokakhand, Kankardia, Nuaratanpur)				16.00
RURAL COMMUNITY INFRASTRUCTURE								
Peripheral road for the villages near project site			Building 15 KM peripheral 2 Lane concrete road starting from Village Bhyuanpal, through Polanga, Garhkujang, Nuagan, Gobindpur to connecting to Paradip coastal road.					60.00
Street Light/Mini and High mast lighting at Public places including repair & maintenance		200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	4.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
in villages/towns/markets within 10 Km of Project Location								
Street Lights on Paradip-Cuttack Highway	200 Street lights	200 Street lights						2.00
Development of Parks/Recreation Centres/Gyms etc. in		1 Children Park at Garakujanga	One General Park at Nuagan	1 children Park at Gobindpur	One General Park cum 1 children park/Gym, 1 at Dhinkia	One General Park cum 1 children cum sensory park at Balitutha	One General Park cum 1 children park/Gym at Trilochanpur & Kankardia	5.00
Bus Shelters and Upgradation of Bus Stand with basic facilities		2 Bus shelters at Balitutha & Nuagan	2 Bus shelters at Dhinkia & Trilochanpur	2 Bus shelters at Kankardia ,Chatua & Upgradation of Paradip Bus stand	2 Bus shelters at Abhaychandpur, Mahal, Chhatara	2 Bus shelters at Chakradharpur, Paradip Garh	2 Bus shelters on Chatua - Ersama road	6.00
Model Haat/Market Place/Vending Zone for SHGs/ Farmer Market		One vending zone at Patana	One vending zone Mahal	1 Model haat development at Balitutha	One vending zone at Nuagan	One vending zone at Chatua		2.50
Development of facilities at Village Crematoriums with shed, sitting area, water facility etc. (All villages		1 Crematorium in Nuagan G.P, 3 in Dhinkia G.P & Deployment of 1	3 Crematorium in Dhinkia G.P	3 Crematorium in Nuagan G.P	3 Crematorium in Garhkujang G.P	2 Crematorium in Kankardia village. & Deployment of 1 Hearse Van	2 Crematorium in Nuaratanpur & Balitutha	3.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
have separate crematorium for different castes)		Hearse Van						
Facilities for drivers & helpers				Construction of facilities like parking plaza, Toilet & bathing complex, Cloakroom Fast aid station etc. for Truckers community at a strategic location near the project site.				8.00
HEALTH CARE								
Phase 2 expansion of 200 bedded Hospital.				Phase 2 Expansion of 200 bedded Hospital in collaboration with State Govt. With trauma care and Burn treatment units				130.00
Emergency Ambulance & Mobile Medical Unit Deployment within 10 KM of Project Area	3 Ambulances		1 Ambulance	1 MMU	1 Ambulance	1 Ambulance		4.00
Establishment of a Therapy Centre for Children with Special Needs				1 Therapy Centre at Balitutha with facilities for physiotherapy, Occupational Therapy, Speech Therapy etc. Deployment of Professional Therapists and assistant therapists. Post CER period, operational expenses for the same shall be taken up under CSR of the company..				2.00
Treatment support to Critical Patients from poor families from nearby villages/ towns. Post CER period, the same shall be taken up under CSR		10 Patients	25 Patients	25 Patients	25 Patients	25 Patients	25 Patients	3.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
of the company.								
Veterinary Care facility upgradation/ establishment			Build/Upgrade local veterinary care facility at Patana & Balitutha. Deployment of trained veterinary Doctor & staff. Manpower expenses to be later taken up under CSR.					2.00
EDUCATION								
Phase 2 Expansion of Public School				Phase 2 expansion of Public school with construction of Hostel for Boys & Girls, Staff quarters, Library, Computer lab, Science Lab, Play-ground, deployment of school Bus etc.				12.00
Infrastructure upgradation of Govt. Schools in collaboration with Govt.of Odisha`s Mo-School Abhiyan				Infra upgradation of Govt. 3 Govt. schools. Kunja Bihari High School, Nuagan U.P. School, Polanga U.P. School	Infra upgradation of Govt. 2 Govt. schools. Nuagan Primary School, Balitutha U.P. School	Infra upgradation of Govt. 2 Govt. schools. Trilochanpur U.P. School, Nuaratanpur U.P.School,	Infra upgradation of Govt. 2 Govt. schools. Chatua U.P. School, Kankardia U.P. School,	4.50
Transformation of Anganwadis in villages within 10-15 KM of project area	20 Model Anganwadis	50 Model Anganwadis	50 Model Anganwadis	50 Model Anganwadis				4.50
STEM/Robotic Lab/Science Exhibition/ Computer learning facility etc.	2 Labs establishment in K.B. High School, Nuagan & Garhkujang High School	2 Labs establishment in Dhinkia High School & Balitutha High School	2 Labs establishment in Bamdeipur High School, Kunjakoti High School	2 Labs establishment in Badagabapur High School, Chatua High School	2 Labs establishment in Paradip College, Erasama College			2.00
Teacher Training/ Special Education Cell etc. in schools upto	100 Teacher training	100 Teacher training	100 Teacher training	100 Teacher training	200 Teacher training	200 Teacher training	200 Teacher training	2.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
Block/District level								
Extra curricular training/ Competitive coaching etc. for students from villages within 10 KM of project area	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 150 selected students/ Aspirants	Coaching for 150 selected students/ Aspirants	3.00
Subject Expert Teacher Support to local Govt. Schools with inadequate staff within 5 KM of project area		20 Teachers to be provided to Local Govt. Schools in phased manner for subjects like Science, Mathematics, English etc. The same shall be taken up under CSR post CER period.						3.00
WATER								
Rejuvenation of Ponds & Water bodies / Creating new ones with ground water recharge, bund, plantation, steps, street light etc.		Pond rejuvenation village wise - Dhinkia - 8, Patana-1, Gobindpur -7, Trilochanpur- 5	Pond rejuvenation village wise - Nuagan-20	Pond rejuvenation village wise - Garhkujang-15, Noliasahi-3, Polanga-3	Pond rejuvenation village wise - Abhaychandpur -6, Nuagan -2, Bayanalkandha -3, Panigadiakandha-1, Kankardia -2, Bamdeipur -4	Pond rejuvenation village wise - Balitutha - 8, Bijipur-8, Badagabapur-3, Badabuda -1	Pond rejuvenation village wise - Kunjakothi-3, Khuranta-5, Bhuyanpal-2	15.00
SANITATION								

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
Mechanised vehicle for garbage lifting and transportation & Establishment of solid waste processing unit				Additional waste collection vehcile deployment, Establishing village level segregation centres in Dhinkia, Garhkujang, Nuagan G.P.s. One central solid waste processing unit in one of the above three G.Ps based on feasibility.				5.00
Development of Public Toilets/Women Exclusive Toilets in villages within 10 KM and/or nearby town/market place etc.	2 Public/Women Exclusive Toilets to be constructed in Garhkujang & Nuagan	2 Public/Women Exclusive Toilets to be constructed in Balitutha & Trilochanpur	2 Public/Women Exclusive Toilets to be constructed in Patapur & Balia	2 Public/Women Exclusive Toilets to be constructed in Chatua & Erasama	2 Public/Women Exclusive Toilets to be constructed in Kankardia & Kunjakothi	2 Public/Women Exclusive Toilets to be constructed in Paradip Garh & Taladanda		3.50
Waste to Wealth Enterprise			1 enterprise Garhkujang G.P with training, infrastructure and equipment to convert plastic, rubber, metal and other waste to creative daily use products.					1.00
ENVIRONMENT & BIO DIVERSITY								
Mangrove Forest Conservation in collaboration with Govt. in coastal Odisha		Rs. 50 lakh contribution	Rs. 50 lakh contribution	Rs. 50 lakh contribution	Rs. 50 lakh contribution			2.00
Bio diversity park/ Aqua museum in village within 5 Km of project area and/or nearby town				1 Bio diversity park		1 Aqua museum		8.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
Carry out plantation and afforestation programs in peripheral villages within 0-5 Km and or road side.	Plantation & maintenance of 4 lakh trees in villages within 0-5 KM from project site							38.00
SKILL DEVELOPMENT								
Skill Development of Youth (Male & Female) from villages within 0-2 Km of project area in Industry oriented skills				600 youth	600 youth	400 youth	400 youth	6.00
Providing training to Mission Shakti SHG members from villages within 2 Km of project area				500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	2.00
Entrepreneurship Development Program & Seed fund for Entrepreneurs from villages			50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship	2.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
within 2 Km of project area							Development	
PROMOTION OF SPORTS								
Mini stadium/ Indoor gaming facility development				One Mini stadiumd/Indoor game facility at Nuagan	One Mini stadiumd/Indoor game facility at Garhkujang	One Mini stadiumd/Indoor game facility at Balitutha	One Mini stadiumd/Indoor game facility at Kankardia	1.50
Coaching Academy with equipments and coaching staff. Same shall be taken up under CSR post CER period		Volleyball Coaching Academy at Dhinkia			Athletics Coaching Academy at Nuagan			1.50
LIVELIHOOD								
Common Production Centres for SHGs within 2 - 5 Km of project area		One Common Production Centre for Mission Shakti SHGs in Dhinkia G.P	One common production centres for Mission Shakti SHGs in Nuagan G.P	One common production centres for Mission Shakti SHGs in Garhkujang G.P	One common production centres for Mission Shakti SHGs in Balitutha G.P'	One common production centres for Mission Shakti SHGs in Bamdeipur G.P	One Common Production Centre for Mission Shakti SHGs in Kunjakothi G.P	2.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
Establishing a Mission Shakti - Women Enterprise Centre of Excellence				One CoE building/facility for Mission Shakti Women Enterprise with equiped facilities to train women entrepreneurs in various small businesess and provide them co-working/ co manufacturing space for products like Food processing, textile, crafts, spices, LED bulb, sanitary pads, furniture etc. at a strategic location in adopted villages in collaboration with State Govt. department of Mission Shakti.				5.00
Betel Cluster Development in villages within 2 Km of project area with focus on direct project affected families				3 betel Cluster Development in Dhinkia, Nuagan & Garhkujan G.P.				10.00
Provision of Electric Vehicles (Three wheeler) to Mission Shakti SHGs for livelihood promotion (Passenger/ Goods). 2 Evs per village in 16 adopted villages.	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	6 Evs to be given women SHGs	6 Evs to be given women SHGs	1.50
PROMOTION OF CULTURE & TOURISM								
Development of Places of worship with public amenities				Infra upgradation of Gundicha Temple, Garhkujang	Infra upgradation of Phulakhai Temple, Dhinkia	Infra upgradation of Mangala Temple, Gobindpur	Infra upgradation of Mahaveer Ashra	3.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
							m, Nuagan	
Revival of Bhagabat Tungis / Similar cultural centres				Revival of 2 Bhagabat Tungis in Dhinkia G.P	Revival of 2 Bhagabat Tungis in Nuagan G.P	Revival of 2 Bhagabat Tungis in Garhkujang G.P	Revival of 2 Bhagabat Tungis in balitutha G.P	1.00
Promotion of Eco-tourism		Promotion of eco-tourism at Silali/Paradip sea beaches. That includes need based development of tourist facilities.						2.00
Music/Dance Academy/ Art Centre and Instrument support to local groups within 2 Km of project area						Establishment of Art Centre with Music & dance etc. training and performing facility with Auditorium at a strategic location in one of the adopted village.		2.50
AGRICULTURE								
Mini-Krushi Vigyan Kendra/ Advance Agriculture Centre within 2-5 Km of project area			Mini Krushi Vigyan Kendra establishment & Operational expenses at a strategic location in one of the adopted village.					12.00
Establishment of small Cold storage				2 small solar-hybrid Cold storages of 20-30 ton in Balitutha G.P and Nuagan G.P	1 small solar-hybrid Cold storage of 20-30 ton in Garhkujang G.P	1 small solar-hybrid Cold storage of 20-30 ton in Balitutha G.P	2 small solar-hybrid Cold storages of 20-30 ton in Dhinkia G.P and	3.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
							Bamdeipur G.P	
Assistance to farmers in Dairy farming/ poultry/Organic farming /Farm mechanisation etc. within 2 -5 Km of project area		200 Farmers	200 Farmers	200 Farmers	200 Farmers	200 Farmers	200 Farmers	4.00
Channel for irrigation and to clear water logging as well as to stop saline water ingress to agriculture fields.			Construction of a channel/drain & check dam(s) to clear water logging from the village & fields during monsoon and to stop saline water ingress into fields during storm.					22.00
OLD AGE/DESTITUTE CARE								
Establishment of Old Age/Destitute care home within 5 Km of project area			1 Old age/ Destitute Home with capacity for 200 persons					3.00
Facilitating Government schemes for people from economically weaker sections from adopted villages		10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.		1.00
UNFORESEEN MISCELLANEOUS ACTIVITIES								

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
Budget provision for unforeseen needs of the peripheral villages	Budget provision for unforeseen activities in adopted villages							10.00
Total								**446.00**
PROJECT EXECUTION								
Project Execution Expenses.	Project Execution Expenses, that covers human resources, consultants, design, Monitoring & supervision, documentation, reporting etc. for the CER projects.							15.00
GRAND TOTAL								**461.00**

Deliberation by the 36th EAC in its meeting held on June 7, 2023

36.3.24 The Committee has deliberated in detail the issues highlighted at Para nos. 35, 36 and 37 of the Order by the Hon'ble NGT dated 20/03/2023 and the observation of the working group in each point and further clarification/information sought form PP in in 31st and 33rd EAC meetings held on 16th May 2023 and 30th May 2023, inter-alia, noted the following:

i. The Committee noted that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents submitted by the PP, and also asked PP to carry out many additional scientific and social studies and examined the project meticulously in various 8 meetings [Three EAC meetings convened regarding ToR application and five EAC meetings convened regarding EC proposal].

ii. However, with passage of time and with changing scenario of Industry mingled with the socio- environmental needs of the impact area, it has been felt to add followings to ensure the sustainable industrial development with safeguard of environment and mitigation measures in a holistic manner to address futuristic issues of populations residing in the core as well as in buffer zone while recommending the project for Environment clearance. Point wise response of EAC on (a to g) Para 35 of the Hon'ble NGT Order dated 20/03/2023 is given in tabular form.

Sl no	Points in Hon'ble NGT Order dated 20/03/202	Observation of the EAC in its various meetings	Recommendation of the EAC

1	**(a.) Cumulative EIA saw the light of the day for the first time after the public hearing:**	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth. followings are the observation of the EAC: i. It may be mentioned that the Environment Clearances is granted as per EIA Notification, 2006 and as amended time to time under the provisions of the Environment (Protection) Act, 1986, following the four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation - conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by Expert Appraisal Committees (EACs). ii. Accordingly, TOR are to be issued after considering the application. Thereafter, as per the TOR issued, Project Proponent is required to comply with the conditions mentioned in the TOR which inter-alia include: (i) collection of base-line data, (ii) preparation of Draft EIA report, (iii) public consultations, (iv) preparation of EIA/EMP Reports and other studies. Subsequently, after public consultation, the final EIA/EMP Reports are submitted to the Ministry along with all the relevant documents. On receipt of final EIA/EMP report after the public consultation, the project is to be appraised by the EAC in a transparent manner. Thereafter, the EAC makes appropriate recommendations and the Ministry takes the appropriate decision with regard to Environmental Clearance.	The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to the Public before Public hearing.

		iii. The EAC noted that the project proponent submitted application for Terms of reference (ToR) on 25.10.2017 for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee (Industry-l) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by MOEFCC vide OM No. J-l10I3/41/2006-lA. II(I), dated 24th December, 2010. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application. Accordingly, PP applied again and Ministry accorded the ToR. iv. The then EAC in its 36th Meeting held on 18-19th May, 2021 has gone through the following record. <u>a) Public representation:</u> It was apprised to the EAC that Ministry was in receipt of a representation on31/01/2020 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.

v. The EAC also noted that it was appraised by the then EAC in its 52nd meeting held on 27th, 28th and 31st January, 2022., that a report was submitted by Odisha Pollution Control Board on 11/10/2021 on public representations dated 11/09/2021and representation dated 12/09/2021 given as below:

S No	Representation points	Comment of OPCB dated 11/10/2021
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.

ii	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 Notification, 2006 and amendment thereafter. However, assessment of Water requirement is available in the EIA report for the ISP.		
iii	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.		

Further the then EAC in MoM of 52nd meeting after deliberation observed "*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 conduce as per the procedure prescribed in the EIA Notification, 2006.*"

vi. It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing,

		incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/ variation between the "Integrated EIA Report, November 2019" (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.	
	(b). Permissibility of sourcing water from Mahanadi:	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth. followings are the observation of the EAC: *i.* The EAC noted that the question with regard to scarcity of water was sought by the EAC in its 36th meeting dated 18.05.2021. PP submitted response as "*Currently 80 % of the Jobra Dam water is drained into the sea. Proposed plant*	The EAC, after detailed deliberations, recommended that Specific condition no. (xiv) of EC dated 11.04.2022 w.r.t. water source and its quantity is revised based on the reduction of water requirement from 99.8 Cusecs to 60 Cusecs, accordingly the

			shall draw 98.1 Cusec water from Jobra, which will reduce the drainage into sea by maximum 10 %. Hence sea water desalination has not been considered from commercial viability point of view and also due to high power cost and its implication on climate change.". EAC in its 44th meeting held 13-14th September, 2021 has evaluated this and asked for further clarification as *"Detailed report validating this claim that 80 % water is drained into sea has not been submitted. 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".* PP submitted its detailed response in the 52nd meeting of the EAC held on 27th and 28th January, 2022. Along with detailed calculation regarding the water availability PP also submitted that the Water Resources Department (WRD), managing water in the state Government of Odisha, after analysis of the available data and the projection carried out by them, has permitted the water withdrawal. ii. As per the review of documents the EAC noted that WRD, Orissa State Govt. is the nodal agency responsible for managing and allocation of the water resources in the state of Odisha. It is based on the WRD water allocation to the PP, the earlier EAC had accepted the sourcing water from Mahanadi. iii. The EAC noted that the PP submitted, Post grant of Environmental clearance, Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant.	revised/updated EC conditions may be as below: ***(xiv). 147500 KLD water shall be sourced from ISS at Chaudhurygada, 25 km from the site. (Including the additional water required to provide ferrule water to villages enroute water pipeline 24400 KLD). No Ground water shall be abstracted.*** ***(xxxii) 1481 m3/h of wastewater shall be generated from the plant and same shall treated and recycled maintaining ZLD status of the plant*** *(xv**.) Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized.***

		iv. The EAC noted that WRD Government of Odisha water allocation letter to the PP dated 01.10.2022. Department of Water Resources have allocated 99.8 cusec of surface water in favour of M/s JSW Utkal Steel Ltd. for operation purpose for their plant at Jagatsinghpur from the intake point on the U/S of the proposed Chaudhurygada ISS without assurance during lean period with the terms & conditions. v. The EAC noted that with passage of time and with changing scenario water requirement for the proposed project has to be revisited & revised based on Best Industry Practices. PP has submitted a revised Water demand. It has been reduced from 99.8 Cusecs to 60 Cusecs i.e about 40% reduction. Unit wise make-up Water Requirement as proposed earlier and revised is given in table at para 36.3.20.	
	(c). Jetty is located within 500 meters of the Paradeep Port:	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and submissions by the PP and further noted that the PP has informed that Paradeep Port is located beyond 12.5 km from the proposed captive jetties of JSWUSL as evidenced through geotagged data. This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The Infra I sector finding may be considered in this regard. The 324th meeting of Expert Appraisal Committee (Infra-1) held on 19th – 21st April, 2023 deliberated on the directions issued by the Hon'ble NGT along with its concerned issues. The proposal will be again placed before the committee after submission of replies by the PP.	The EAC, after detailed deliberations, recommended that the finding of the EAC (Infra-1 Sector) in this regard may be considered.
	(**d).Paradeep is polluted industrial area:**	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then	The EAC, after detailed deliberations, recommended that **Additional specific**

		EAC had scrutinized the project in depth based on the documents submitted by the PP. followings are the observation of the EAC: i. The EAC has examined the earlier EIA/EMP Report which were submitted by the PP before the then EAC (Industry 1 Sector) and noted that the EIA/EMP report, inter-alia, mentioned that there was no "severely polluted area" within 10 km radius of the project site. ii. However, this EAC has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". iii. The EAC has noted that CEPI in Paradeep industrial area has improved from 69.35 to 60.61 in the past ten years, as reported in the "Action Plan for Abatement of Pollution in Industrial areas of Paradeep, OSPCB, July 2020" iv. Therefore, the EAC noted that this matter needs to be considered by the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. v. In view of the above, the PP was asked to submit a detailed report on how the Environment Management plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/ CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry's OM of 2019 on CEPI/SPA. The Compliance to CEPI Guidelines is in para 36.3.21 and Compliance to the Ministries OM of 31-10-2019 2019 CPA/SPA areas is at para	**<u>conditions</u>** shall be included. ***The PP shall strictly implement the action plan prepared as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to minimise the Air emissions. All conditions stipulated in the "Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score" shall be also strictly complied and implemented by the PP.*** **<u>Green belt condition</u>** shall be modified based on the compliances of the OM of 2019. **(xxviii*). Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the***

		36.3.22. The same has been deliberated by the EAC. vi. The EAC deliberated on the proposed mitigation measures and detailed action plan submitted and found it satisfactory.	***plant area on Government land at the cost of the Project Proponent. Tree density of 2500 trees per ha shall be maintained.*** ***Necessary arrangements(MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the PP. The selection of species will be in consultation with the State Forest Department, and forestry experts.*** ***JSW shall not use this 85 ha. land for any purpose other than green belt.***
	(e.) The SIA has been conducted later and was not part of public hearing:	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth based on the documents submitted by the PP. followings are the observation of the EAC: i. The EAC noted that, SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the then EAC in its 36th meeting held during 18-19th	The EAC, after detailed deliberations, recommended that an amount of Rs. 196.05 Cr have been earmarked to address the issues raised during public hearing in EC dated 11.04.2022.The same has been revised to 657.05 Cr PH Action Plan as enclosed at para 36.3.23**.**

		May, 2021 observed that *R&R Plan based on Public Hearing, SIA and as per Odisha Governments R&R Plan Preparation Guidelines has not been furnished.* Based on the recommendation of the then EAC, SIA for R&R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and accordingly specific conditions were included in the recommendations of the EAC. ii. However, the EAC further deliberated on Social Impact Assessment (SIA) study and suggest to Social Impacts Mitigation Action Plan (like Community Development Plan/ Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project. and based on the deliberations PP revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs**. 657.05** Cr from Rs. **196.5 Cr** as given in para 36.3.23	
	(f). The project by POSCO was abandoned and was adversely commented upon by this Tribunal	The EAC, in its various meetings, has gone through each point on the order of Hon'ble NGT dated 20.03.2012 and other relevant documents. followings are the observation of the EAC: (i) The EAC noted that the erstwhile PP (POSCO) received the EC in the year 2007 and subsequently, deliberations have been carried out at different forums and additional conditions were imposed on 31.01.2011. Further, the present petitioner (who was also the petitioner at that time) went to NGT (Appeal No. 8/2011) and NGT quashed the	The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth and very

		additional conditions in March 2012 without altering the original EC of 2007. (ii) The proposal regarding revalidation of Environmental Clearance was placed before the Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March, 2013 and further reconsidered in its 8th meeting held during 16-17th May, 2013. After considering the facts and events, the EAC recommended for the revalidation of the environmental clearance dated 19.7.2007 subject to environmental safeguards including the recommendations given in the report of the Expert Committee headed by Shri K. Roy Paul which was constituted by the Ministry in pursuance to the directions given by the Hon'ble National Green Tribunal on 30.3.2012. Based on the recommendation of EAC, the Ministry had revalidated the EC for a period of five years with effect from 18.7.2012 subject to stipulation of the additional conditions for compliance vide letter dated 7th January 2014.	stringent/realizable EC conditions are specified.
	(g.)Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted:	The conditions stipulated in the EC granted to POSCO (in Jan 2007and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, However EAC further deliberated for additional EC conditions, w.r.t. Decarbonisation, Circular economy, Sustainable Development Goals, Green buildings, Supply of drinking water to the neighbourhood.	The EAC, after detailed deliberations, recommended that the following Additional specific conditions shall be included. *i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture,*

			use and storage and offsetting strategies. *Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.* *ii. The PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement.* *ii. The PP should prepare and implement a Road map on Circular*

			economy and also align their operation towards achieving the goal of Sustainable Development. *iv. The PP should engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.* *v. The PP shall adopt and implement "Green Building" concept during the construction and operational periods to minimise the carbon foot print.*

Directions of the Hon'ble Supreme Court of India in the matter of Civil Appeal nos. 3657-3658 of 2023

36.3.25 The Committee also noted that Meanwhile, the same Petitioners, Prafulla Samantara & Ors of the said Hon'ble NGT case also approached the Hon'ble Supreme Court of India with a prayer to set aside the Judgment & Order dated 20.03.2023 passed by the National Green Tribunal, Eastern Zone Bench Kolkata in Appeal No. 21 of 2022 (EZ) & Appeal No. 22 of 2022 (EZ) and to quash the Environment Clearances of the said projects.

The Hon'ble Supreme Court of India in its Order of Civil Appeal nos. 3657-3658 of 2023 dated 15-5-2023 directed that:

> *"We direct that after the appellants ventilate their grievances by raising complaints in the representation before the EAC within a period of three weeks from today, the EAC, when it passes an order which is a reasoned order as directed by the NGT, the same will be taken into consideration. The appeals are disposed of on the said terms".*

Following the above order of the Hon'ble Supreme Court of India, it is to mention that no grievances or complaints have been received by the EAC/Ministry from the petitioners within the time of three weeks granted by the Hon'ble Supreme Court, till the finalisation of the minutes of the meeting.

Recommendations of the Committee:

36.3.26 In view of the foregoing and after detailed deliberations, the Committee observed that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents/Reports. Further, the then EAC has also sought some additional scientific and social studies and the project was critically appraised by the then EAC in its different meetings. It needs to be mentioned that conclusions of present EAC are based on the detailed deliberations in the meetings of working group (2 days online and 3 days physical) especially constituted by EAC for this purpose and critical examinations of working group recommendations and responses of Project Proponents in its 4 meetings.

36.3.27 The present EAC has deliberated the direction of the Hon'ble NGT Order dated 20/03/2023 vis-a-vis the compliance of the directions of Hon'ble NGT. After detailed deliberations, the EAC has reiterated the recommendations of the then Expert Appraisal Committee for grant of EC with additional safeguard and mitigation measures that became essential with changing scenario with passage of time.

The present EAC after deliberation, envisaged the need of revisiting CER budget to address issues raised during public hearing and other socio-economic issues. As a result of such deliberation, the PP has revised their PH action plan Budget substantially to Rs.657.05 crore from the earlier budget of Rs. 196.05 crore to address various holistic need of people which includes, health care, infrastructure development, education, livelihood, village adoption etc.

The EAC has also **recommended** that an amount of Rs. 196.05 Crore have been earmarked to address the issues raised during public hearing in EC dated 11.04.2022. The same has been revised to 657.05 Crore.

The EAC, also noted that the PP has informed that Paradeep Port is located beyond 12.5 km from the proposed captive jetties of JSWUSL as evidenced through geotagged data. This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The EAC, after detailed deliberations, recommended that the finding of the EAC (Infra-1 Sector) with regard to Jetty may be considered.

The EAC has **recommended** for grant of Environment Clearance dated 11.04.2022 subject to the stipulation **additional environmental safeguards and mitigation measures** including the following additional specific conditions:

Sl No	Specific conditions w.r.t. EC dated 11.04.2023	Revised Specific conditions	Remarks
1	(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.	(xiv.) 147500 KLD water shall be sourced from ISS at Chaudhurygada, 25 km from the site. (Including the additional water required to provide ferrule water to villages enroute water pipeline 24400 KLD). No Ground water shall be abstracted. The PP, as committed, shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers. The PP as committed shall rejuvenate the identified 110 existing community ponds.	With changing scenario, the water requirement for the proposed project has been revisited and revised based on Best Industry Practices (as summarized in table 36.3.20) and the water requirement is substantially reduced now.
2	(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.	(xv). Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized in the Unit.	With changing scenario water requirement for the proposed project has been revisited & revised based on recycling of water and its use in the process so that

			water requirement is decreased.
3	(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.	(xxviii.) Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Tree density of 2500 trees per ha shall be maintained. Necessary arrangements (MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the PP. The selection of species will be in consultation with the State Forest Department, and forestry experts. M/s JSW shall not use this 85 ha. land for any purpose other than green belt.	EAC has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep" and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. The Committee deliberated the Action plan on the CEPI guidelines and found in order.
5	(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.	(xxxii). 1481 m3/h of wastewater shall be generated from the plant and same shall treated and recycled maintaining ZLD status of the plant	With changing scenario, the water requirement for the proposed project has been revisited and revised based on proposed Best Industry Practices.
Additional Safeguards/EC conditions			
6	-	The PP shall strictly implement the action plan prepared as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 05/07/2022. Stringent measures shall be undertaken as per the submitted action	The EAC has gone through the letter of OSPCB dated 18-4-2023 that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep" and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with

		plan to minimise the Air emissions. All conditions stipulated in the "Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score" shall be also strictly complied and implemented by the PP. Compliance Report shall be submitted to IRO, MoEFCC.	CPA/SPA. The Committee deliberated the Action plan on the CEPI guidelines and found in order.
7	-	The Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.	Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development.
8.	-	The PP should prepare and implement a Road map on Circular economy and also align their operations towards achieving the goal of Sustainable Development.	

9.	-	The PP should engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.	This may help the local people for Community Development and livelihood etc.
10		The PP shall adopt and implement the "Green Building" concept during the construction and operational periods to minimise the carbon foot print.	Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development and community engagement.
11	-	The PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement.	This may help the local people for getting water supply.

The meeting ended with thanks to the Chair.

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ANNEXURE –1

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

Preliminary requirements:

i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.

ii. Besides, following points shall be compiled as per QCI/NABET norms:
   a. Disclaimer by the EIA consultant.
   b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
   c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
   d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
   e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report

Executive Summary

i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.

ii. Point wise compliance to the ToR issued by MoEF&CC.

iii. Executive Summary
   I. Introduction
      i. Name of the project along with applicable schedule and category as per EIA, 2006.
      ii. Location and accessibility
   II. Project description
      i. Resource requirements (Land; water; fuel; manpower)
      ii. Operational activity
      iii. Key pollution concerns
   III. Baseline Environment Studies
      i. Ambient air quality
      ii. Ambient Noise quality
      iii. Traffic study
      iv. Surface water quality
      v. Ground water quality
      vi. Soil quality
      vii. Biological Environment
      viii. Land use
      ix. Socio-economic environment
   IV. Anticipated impacts

i. Impact on ambient air quality
ii. Impact on ambient noise quality
iii. Impact on road and traffic
iv. Impact on surface water resource and quality
v. Impact on ground water resource and quality
vi. Impact on terrestrial and aquatic habitat
vii. Impact on socio-economic environment

V. Alternative analysis
VI. Environmental Monitoring program
i. Ambient air, noise, water and soil quality
ii. Emission and discharge from the plant
iii. Green belt
iv. Social parameters

VII. Additional studies
i. Risk assessment
ii. Public consultation
iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

VIII. Project benefits
IX. Environment management plan
i. Air quality management plan
ii. Noise quality management plan
iii. Solid and hazardous waste management plan
iv. Effluent management plan
v. Storm water management plan
vi. Occupational health and safety management plan
vii. Green belt development plan
viii. Socio-economic management plan
ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

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

2. Project description

A. Site Details

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

iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.

v. Environment settings of the site and its surrounding along with map.

vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.

vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.

ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.

x. Type of land, land use of the project site needs to be submitted.

xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.

xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.

xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

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

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

C. Salient features of the project

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

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

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

3. Description of the Environment

i. Study period

ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	Minimum 1 site in the project impact area	1 hourly continuous	• IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants • $PM_{2.5}$	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different
• PM_{10}			
• SO_2			
• NOx			
• CO			
• HC			

Attributes	Sampling		Remarks
	Network	Frequency	
• Other parameters relevant to the project and topography of the area			parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	-
C. Water			

Attributes	Sampling		Remarks
	Network	Frequency	
Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal coliforms • Phyto-plankton • Zoo-plankton • Microalgae/microalgal bloom	Samples for water quality should be collected and analyzed as per: • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • Electrical Conductivity • TDS	• Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	• Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards)	
For Ground Water	• Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.		
D. Traffic Study			
• Type of vehicles • Frequency of vehicles for transportation of materials	-		

Attributes	Sampling		Remarks
	Network	Frequency	
• Additional traffic due to proposed project • Parking arrangement			
E. Land Environment			
Soil • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity	Soil samples be collected as per BIS specifications		
Land use/Landscape • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements	-		
E. Biological Environment			
Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed	• Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests.		

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) **Terrestrial** • Vegetation-species list, economic importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes	• Secondary data to collect from Government offices, NGOs, published literature.		
F. Socio-economic			
• Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education	• Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies		

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

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

4. **Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**
    i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

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

b. Operation phase

ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

5. Analysis of Alternatives (Technology & Site)

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

6. Environmental Monitoring Program

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

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

Activity	**Aspect**	**Monitoring Parameter**	**Location**	**Frequency**	**Responsibility**
Construction phase					
Operation phase					

7. Additional Studies

i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.

iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.

iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.

v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).

vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S No	**Physical activity and action plan**		**Year of implementation (Budget in INR)**			**Total Expenditure (Rs. in Crores)**
	Name of the Activity	**Physical Targets**	**1st**	**2nd**	**3rd**	

viii. Risk assessment

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

ix. Emergency response and preparedness plan

8. Project Benefits

i. Environment benefits

ii. Social infrastructure

iii. Employment and business opportunity
iv. Other tangible benefits

9. Environment Cost Benefit Analysis

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

10. Environment Management Plan (Construction and Operation phase)

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

11. Conclusion of the EIA study

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

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ANNEXURE-2

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM10 and P2.5) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM10 to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

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

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

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

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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 is acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora/fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

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ANNEXURE-3

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

S. No.	Name	Position	07.06.2023
1.	Shri Rajive Kumar	Chairman	***Present***
2.	Dr. Dipankar Shome	Vice Chairman	***Present***
3.	Dr. S. Ranganathan	Member	***Present***
4.	Dr. Ranjit Prasad	Member	***Present***
5.	Dr. S. K. Singh	Member	***Present***
6.	Dr. Tejaswini Ananthkumar	Member	***Present***
7.	Dr. Hemant Sahasrabuddhe	Member	***Present***
8.	Dr. Jai Krishna Pandey	Member	***Present***
9.	Dr. E V R Raju	Member	***Present***
10.	Dr. S K Chaturvedi, Actg. DG, (Representatives of NCCBM)	Member	***Present***
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	***Present***
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH)	Member	***Present***
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	***Absent***
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	***Present***
MoEFCC			
15.	Dr R P Rastogi	Scientist C	***Present***
16.	Dr Sandeepan BS	Scientist B	***Present***

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ANNEXURE-4

Approval of EAC Chairman

Email **Director MoEFCC Dr R B LAL**

Re: Revised Draft minutes of the 36th EAC Meeting held on 7th June, 2023 for approval of the Chairman

From : chairman eac ind 1 <chairman.eac.ind.1@gmail.com> Sat, Jun 10, 2023 07:13 AM

Subject : Re: Revised Draft minutes of the 36th EAC Meeting held on 7th June, 2023 for approval of the Chairman

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

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

Dear Dr. Lal,
The revised draft minutes of the 36 th EAC meeting are approved.
Kindly do the needful.

Best wishes
Rajive Kumar
Chairman-EAC-Industry-1

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