



GM Iron & Steel Company Ltd.

Adm. Office : Rairangpur, Mayurbhanj, Odisha - 757043

Tel : +91-6794-222834, Fax : +91-6794-222698

E-mail : gmsteelbbsr@gmail.com

CIN : U27310WB2007PLC113656

Date: 7th July, 2023

Member Secretary,
Expert Appraisal Committee (Industry-I),
Ministry of Environment, Forest and Climate Change
Indira Paryavaran Bhawan,
Jor Bag Road,
New Delhi-110 003

Subject: Reply to the Observations of Reconstituted Expert Appraisal Committee (Industry-I) held on 7th July, 2023 for receiving Environment Clearance for the Proposed Expansion cum modification of existing steel plant to final capacity of Pellets – 8,00,000 TPA, Sponge Iron – 3,72,900 TPA, Rolled Products – 2,70,000 TPA, Captive Power – 58 MW and Slag Cement – 4,16,000 TPA by M/s GM Iron & Steel Company Ltd. at Village Kulei, Parjang in Dhenkanal District, Odisha (EAC Meeting No. 39 on 07-07-2023, Item No. 39.9) - Regarding Environment Clearance

Refer : [Proposal No. IA/OR/IND1/417729/2023; File No. IA-J-11011/286/2020-IA-II(IND-I)]

Dear Sir,

This has reference to the 39th meeting of EAC (Industry-1) of Reconstituted Expert Appraisal Committee (Industry-I) of Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India dated 7th July, 2023. During the meeting, the Hon'ble Committee raised some queries.

We are giving here under our reply to the respective queries:

1. The Committee asked for a justification for not obtaining Environmental Clearance (EC) for the existing project.

Reply :

The existing steel plant at Village Kulei, Parjang in Dhenkanal District, Odisha, was implemented by M/s. Rana Sponge Ltd. after getting NOC from State Pollution Control Board, Orissa vide Letter No. 29790/Ind-II-NOC dated 04.10.2004 and Letter No. 14933/IND-II-NOC-3435 dated 09.05.2005 as per the prevailing notification of MoEF&CC, as per which Environmental Clearance (EC) was not applicable for the project as the project cost was less than Rs. 100 Crores. (The project cost was 48.52 Crores).

Sl. No.	Certificate Obtained	Memo No.	Date of Issue	Name of Unit	Obtained from	Project Cost	Violation, If any
1	Consent to Establish	29790/Ind-II-NOC	04.10.2004	<ul style="list-style-type: none">• DRI Kilns (1x100 TPD + 1x350 TPD)• 2x10 T Induction Furnaces• 12 MW CPP	State Pollution Control Board, Orissa	48.52 Crores	No



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2	Consent to Establish	14933/Ind-II-NOC-3435	09.05.2005	• Rolling Mill - 30,000 TPA	State Pollution Control Board, Orissa	-	No
3	Consent to Operate	5331/IND-I-CON-4699	31.03.2023	• DRI Kilns (1x100 TPD + 1x350 TPD) • 2x10 T Induction Furnaces • 12 MW CPP (8 MW WHRB + 4 MW AFBC) • CCM - 75,000 TPA • Rolling Mill - 30,000 TPA	State Pollution Control Board, Orissa	-	No

Copy of CTEs are attached as **Annexure - 1**.

- The maximum value of PM during baseline data is recorded too high. Please submit justification for the same.

Reply:

- The values of PM10 are within the prescribed limits but quite on the higher side.
- The maximum value of PM10 i.e. 98.1 $\mu\text{g}/\text{m}^3$ was observed at Talcher during baseline data generation, only once during the monitoring period from December, 2020 to February, 2021.
- This can be attributed to the presence of Lingaraj Opencast Mines close to the monitoring location and regular plying of vehicles carrying raw materials & products on the SH-149 which is about 110 m from the monitoring location.
- Baseline data was again collected in the month of December, 2022. The maximum value of PM10 was observed to be 88 $\mu\text{g}/\text{m}^3$ which was much lower.
- Upon enquiry it was found out that the Lingaraj Opencast Mines were not in operation at that point of time and the mines have been almost saturated.

Mitigation Measures

- Compliance to the CEPI guidelines shall be done.
- Sufficient APC measures like Bag Filters, ESPs, stack of adequate height will be installed to control the emission levels.
- CEMS has already been installed for the existing units and connected to SPCB and CPCB servers. Same practice shall be followed for the proposed units.
- The company has earmarked 17.24 ha (42.6 acres) of land i.e. 40% of the total project area for Green Belt Development within its plant site.

- The committee asked the proponent and the consultant to explore options to reduce the LOS values.



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Reply :

The traffic load calculations have been revised and presented as **Annexure - 2**. After the final calculations, the level of service will be "A" on NH-200 near Pitri Square and "B" on Banarpal - Pallahara Road including additional traffic due to proposed expansion cum modification project.

4. Public Hearing action plan including more details regarding the CER and CSR activities to be carried out.

Reply :

It has been decided to develop three nearby villages namely Kulei, Gengutia and Kualo by addressing the socio-economic needs of the villagers and issues raised during the Public Hearing.

Adequate fund will be allocated for village road maintenance, medical facilities for villagers, educational support, drinking water supply etc. under CSR of the company.

Adequate fund will be allocated for conservation of nearby forests under CSR of the company.

Details of CER activities / Point-wise Compliance to the issues raised during Public Hearing along with action plan as per MoEF&CC O.M. dated 30/09/2020 has been presented as

Annexure - 3.

5. Details of the ongoing NGT case were asked to be provided.

Reply :

Summary of the case proceedings along with the case order, inspection report by SPCB, Odisha and last hearing notice has been attached as **Annexure - 4**.

6. Revised Carbon sequestration calculation.

Reply :

Carbon footprint and Carbon sequestration calculation has been attached as **Annexure - 5**.

7. Recent status of Forest Clearance application.

Reply :

The latest document obtained from the State Forest Headquarters, Odisha, Office of the Chief Conservator of Forests & HoFF, regarding Forest Clearance has been attached as **Annexure - 6**.

8. An affidavit declaring that no violation has been done in case of the existing plant.



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Reply :

The units with rated capacity for which CTE and CTO was granted has only been established and are under operation at present. The production capacity is within the quantities permitted. An affidavit stating the details has been attached as **Annexure - 7**. Copies of the CTEs and valid CTO have been attached.

We hope this will serve your purpose.

We hereby request you to kindly take the necessary action so that an early Environmental Clearance can be issued for our proposed expansion cum modification project.

Yours faithfully,

For GM Iron & Steel Company Limited,

GM Iron & Steel Company Limited


Director

Kushal Choubey
(Director)

BY REGD POST



OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ORISSA

Pativesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII,
Bhubaneswar - 751 012

No. 29790 /Ind-II-NOC-
L.K. Tewari, IFS
Member Secretary

Date 4/10/09OFFICE MEMORANDUM

In consideration of the application for obtaining Consent to Establish for M/s Rana Sponge Ltd. the State Pollution Control Board has been pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1987 for manufacture/production of the following:

Sl.No	Products	Units	Quantity in tonne Per Annum
1.	DRP	1X100 TPD Kiln 1X350 TPD Kiln	1,35,000
2.	M.S. Ingot	2X 10 T Induction Furnace	75,000
3.	Power Plant (based on WHRB)	8 MW	8 MW

At Village-Kulei (as per Plot Nos. given in Annexure-I), PO- Kulei, in district of Dhenkanal with the following conditions. The total Project cost is estimated to be Rs. 48.62 Crores.

GENERAL CONDITIONS:

1. This Consent to establish is valid for the product, quantity, manufacturing process and raw materials as mentioned in the application & for a period of five years from the date of issue of this order, provided commencement of production of the proposed project has ~~not~~ taken place in the meantime.
2. If the proponent fails to start operations of the project but substantial physical progress has been made then ~~the~~ renewal of this consent shall be sought by the proponent.
3. If the proponent fails to initiate construction of the project and no significant physical progress is made then, the proponent has to apply for consent to establish afresh after expiry of 5 years from the date of issue of this order.
4. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under Environment Protection Rule, 1986 or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.



OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ORISSA

Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII,
Bhubaneswar - 751 012

No. 29790 /Ind-II-NOC-
L.K. Tewari, IFS
Member Secretary

Date 4/10/09

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3.	Power Plant (based on WFRB)	8 MW	8 MW

At Village-Kulai (as per Plot Nos. given in Annexure-I), PO- Kulai, in district of Dhenkanal with the following conditions. The total Project cost is estimated to be **Rs. 48.52 Crores.**

GENERAL CONDITIONS:

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2. If the proponent fails to start operation of the project but substantial physical progress has been made the ~~consent~~ renewal of this consent shall be sought by the proponent.
3. If the proponent fails to initiate construction of the project and no significant physical progress is made then, the proponent has to apply for consent to establish afresh after expiry of 5 years from the date of issue of this order.
4. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under Environment Protection Rule, 1986 or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.

5. All emission from the industry as well as the ambient air quality and noise are to conform to the standards as laid down under Environment(Protection) Act, 1986 or as prescribed by Central Pollution Control Board/State Pollution Control Board or otherwise stipulated in the special conditions.
6. Adequate method of disposal of solid waste is to be adopted to avoid environmental pollution.
7. The industry is to comply to the provisions of Environment Protection Act, 1986 and the rules made thereunder with their amendments from time to time such as the Hazardous Waste (Management & Handling) Rules 1989, Hazardous Chemical Rules, Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments thereunder. The industry is also to comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
8. The industry is to apply for grant of Consent to operate under section 25/26 of Water(Prevention & Control of Pollution)Act, 1974 & Air (Prevention & Control of Pollution)Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.

SPECIAL CONDITIONS :-

1. Separate ESP shall be provided at the stack attached to the each rotary kilns such that particulate emission shall not exceed 100 mg/Nm^3 .
2. Pulao jet bag filters of adequate capacity shall be installed at crushers screens, conveyors of raw materials handling and product handling area, cooler discharge, magnetic separator and other potential dust generating points to minimize fugitive emission. The particulate emission from all vents / stacks connected to the bag filters shall not exceed 100 mg/Nm^3 . The unit shall provide port hole and platform at suitable location on the stack with safe approach to conduct emission monitoring.
3. Bag filters shall be provided at coal injection point, raw material feeding point of the kilns to control fugitive dust. Slip rings of kiln shall be maintained properly to prevent dust leakages.
4. Swivelling hood of adequate size shall be installed to collect fumes during charging and pouring of metals from the induction furnace. The fumes so collected shall be directed through an air pollution control device, so as to meet the standard of 150 mg/Nm^3 for particulate matter.
5. The roads shall be black topped. Permanent high pressure water spraying system shall be installed for regular spraying of water on roads and work zone to minimize fugitive dust emission.
6. The industry shall install separate energy meter for ESP and other pollution control devices and maintain a log book of the meter readings.
The industry shall maintain a separate log book for the quantity of dust collected in the ESP & B.F. and its final disposal.
7. The D.G. Set shall be installed in an acoustically designed enclosure to control noise level and over anti vibration pads to avoid vibration.
8. Ambient Air Quality inside the factory premises shall conform to the National Ambient Air Quality Standard. The industry is to monitor the ambient air quality regularly at least once in a week for 24 hours and report result to the Board every month.
9. The height of the stack attached to the D.G. Sets shall conform to the following

$H = h - 0.1 \times KVA$ where

h = Height of the building where it is installed in meter.

KVA = Capacity of the D.G. Set

H = Height of the stack in meter above ground level

12. The effluent generated from cooling etc. shall be completely recycled and under no circumstances there shall be any discharge of effluent from the factory premises.
13. The domestic effluent shall be treated properly in septic tanks followed by soak pits as per BIS specification
13. A Comprehensive management plan for collection, handling, transportation and disposal of solid waste generated from various section shall be submitted to the Board within 02 months of issue of this order. The failure of submission of this plan shall automatically lead to revocation of this consent order. This consent to establish is subject to approval of solid waste management plan by this Board. At least 10 acres of land for 100 TPD of product shall be earmarked for solid waste disposal apart from built up area proposed in the application.
14. The solid waste generated shall be suitably disposed off within the premises or any other designated area after due approval of the Board so as not to create any dust nuisance or ground water contamination.
15. The industry shall develop a thick green belt around the factory premises and specifically around the dust generation area and solid disposal area. The green belt area shall be super imposed on general layout plan and submitted to the Board within 02 months of issue of this order
16. The Board may impose further conditions after receipt of green belt plan, solid waste management plan which shall be enforceable inter-alia imposed vide this order.
17. The effluent generated from the After Burning Chamber (ABC) shall be adequately treated in settling tanks and recycled. The sludge shall be disposed off properly
18. No production activity shall commence prior to installation of all pollution control measures.
19. The industry shall obtain clearance of Central Ground Water Authority for drawal of water (if applicable) and shall submit the Board while applying for consent to operate.
20. The height of the stack of ~~cooling tower~~ shall conform as per EP Notification CSR 742(E), DL30.08.1990 ~~where~~ Q is the emission rate of SO_2 in Kg. Per hour and H is stack height in meter.
21. Fugitive emission from all ~~possible~~ ~~sources~~ shall be minimized.
22. The blow down shall meet the ~~following~~ standards before it is discharged to the common monitoring basin:

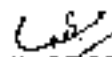
Boiler Blow down

Suspended Solids	30.0 mg/l (Max.)
Oil & Grease	30.0 mg/l (Max.)
Copper (Total)	1.0 mg/l (Max.)
Iron (Total)	1.0 mg/l (Max.)

Cooling Tower Blow down

Free available Chlorine	0.5 mg/l (Max.)
Zinc	1.0 mg/l (Max.)
Chromium (Total)	2.0 mg/l (Max.)
Phosphate	0.2 mg/l (Max.)

23. The wastewater generated from leakages, dust suppression, slow down and DM plant shall be treated individually to meet the prescribed standard of effluent discharge to inland surface water and stored in a common basin for utilization for plantation and green belt purposes inside the factory premises.
24. This consent to establish is granted subject to acquisition of additional land of 14.37 Acres adjacent to the proposed site. The industry shall submit the sale deeds of Land to the Board within 30 days of issue of this letter. The industry shall note that if this condition is not complied their application for grant of consent to operate will not be considered.
25. The industry shall take up adequate measure for routine health check up of its employees/ workers and the people residing in the neighbourhood of the plant free of cost.
26. The Board may impose further condition or modify the conditions as stipulated in this order during installation and / or at that time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/ or information is found to have been suppressed / wrongly furnished in the application form.
27. No construction activity with respect to expansion if any shall commence till permission is obtained from this Board.
28. In no case trial run of the kilns shall be started till the industry complies installation ESP & GCP and other pollution control measures and permission for trial run is obtained from the Board for starting operation of the kilns.
29. The industry shall abide by E(P) Act, 1966 and Rules framed thereunder.


MEMBER SECRETARY

To,

Mr. Noor Salem Rana, Director
Mr. Rana sponge Ltd...
AT: Pradhan Bhawan, Ramman Road,
Habarola, Talcher, Dist- Angul

Memo No. _____ /DX

Copy forwarded to the M.D. GESCO, Bhubaneswar/Angul for information and necessary action with a request to supply restricted power for construction/installation of the project but not to supply full load of electric power till the industry complies installation of pollution control measures and obtained permission for trial run from the Board for starting operation of the kilns.

SR. ENV. ENGINEER

Memo No. _____ /DI

Copy forwarded to

1. The Collector, Dhenkanal
2. District Industries Centre, Dhenkanal
3. Chief Inspector of Factories & Boilers, Bhubaneswar
4. Environment Engineer-Consent Section
5. Copy to Guard file/Consent to establish register

SR. ENV. ENGINEER

STATE POLLUTION CONTROL BOARD, ORISSA

Manikch BBA, Jat, 118, Police Station, Cuttack, Distt. Cuttack,
Orissa-751005

Encl-1-10-1988

Date

OFFICE MEMORANDUM

In consideration of the application for obtaining consent to establish for M/s Rana Spunage Ltd. the State Pollution Control Board has been pleased to grant its Consent to Establish under section 26 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1986 for manufacturing / production of Woolen Single Channels, Bar Round of capacity of 2000 MT/month at the existing premises of M/s Rana Spunage Ltd AUPO, Kufel the district of Bhubaneswar with the following conditions:

GENERAL CONDITIONS.


1. This Consent to establish is valid for the product, quantity manufacturing process and raw materials as mentioned in the application & for a period of five years from the date of issue of this order, provided commencement of production of the proposed project has not taken place in the meantime.
2. If the proponent fails to start operation of the project but substantial physical progress has been made then a renewal of this consent shall be sought by the proponent.
3. If the proponent fails to initiate construction of the project and no significant physical progress is made then, the proponent has to apply for consent to establish afresh after expiry of 5 years from the date of issue of this order.
4. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under EP Rule or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.
5. All emission from the industry as well as the ambient air quality and noise are to conform to the standards as laid down under EP Rule/Central Pollution Control Board/State Pollution Control Board or otherwise stipulated in the special conditions.
6. Adequate method of disposal of solid waste is to be adopted to avoid environmental pollution.
7. The industry is to comply to the provisions of EP Act, 1986 and the rules made thereunder with their amendments from time to time such as the Hazardous Chemicals/Manufacture, Storage and Import Rule, 1989 etc. The industry is also to comply to the provisions of Public Liability Insurance Act, 1991, if applicable.

Contd..Pg/2

1. The industry is to apply for grant of Consent to establish under section 25(2)(b) of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 if coming under air pollution control area) at least 3 (three) months before the commercial production and obtain Consent to Operate.
2. This consent to establish is subject to other statutory clearance from the department of Govt. of Orissa & Govt. of India.

SPECIAL CONDITIONS:-

1. The cooling water shall be completely recycled and shall not be discharged to outside under any circumstances. Periodical discharge of the cooling water shall be made on its own land inside the factory premises.
2. The domestic effluent shall be discharged to soak pit via septic tank constructed as per BIS specification.
3. Particulate matter emission through the stack attached to the reheating furnace shall not exceed 150 mg/m^3 . The height of the stack shall not be less than 30 meters from ground level.
4. The unit shall provide perchole and platform at suitable location on the stack with safe approach to conduct emission monitoring.
5. The industry shall provide pollution control measures for controlling the fugitive dust emission and the ambient air quality inside the factory premises shall conform to the National Ambient Air Quality Standards with respect to SPM i.e. $500 \mu\text{g/m}^3$.
6. Solid waste shall be dumped inside the factory premise in such a manner to prevent ground water contamination and any public nuisance or used for road making.
7. The industry shall develop a green belt along its boundary and vacant areas available inside the premises.
8. The Board may impose further condition or modify the conditions as stipulated in this order during installation and / or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form.
9. The industry shall abide by the EP Act, 1986 and rules framed thereunder.



MEMBER SECRETARY

To,
The Director,
M/s Rana Sponge Ltd
At/ Pradhan Bhawan, Remuan, Hatraola, Talcher
Dist- Angul.

1. The industry is to apply for grant of Consent to operate under section 25(2)(b) of Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 (if coming under air pollutant control area) at least 3 (three) months before the commercial production and obtain Consent to Operate.
2. This consent to establish is subject to other statutory clearance from the department of Govt. of Orissa & Govt. of India.

SPECIAL CONDITIONS:-

1. The cooling water shall be completely recycled and shall not be discharged to outside under any circumstances. Periodical discharge of the cooling water shall be made on its own land inside the factory premises.
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5. The industry shall provide pollution control measures for controlling the fugitive dust emission and the ambient air quality inside the factory premises shall conform to the National Ambient Air Quality Standards with respect to SPM i.e. $500 \mu\text{g/m}^3$.
6. Solid waste shall be dumped inside the factory premise in such a manner to prevent ground water contamination and any public nuisance or used for road making.
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8. The Board may impose further condition or modify the conditions as stipulated in this order during installation and / or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form.
9. The industry shall abide by the EP Act, 1986 and rules framed thereunder.


MEMBER SECRETARY

To,
The Director,
M/s Rana Sponge Ltd
At/ Pradhan Bhawan, Remuan, Hatatola, Talcher
Dist- Angul.



CONSENT ORDER

1

BY SPEED POST

STATE POLLUTION CONTROL BOARD, ODISHA

(DEPT., OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA)

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-2561909/ EPABX : 2561909/2562847

E-mail: paribesh1@ospcbboard.org / Website: www.ospcbboard.org

CONSENT ORDER

No. 5331 / IND-I –CON–4699

Dt. 31-03-2023

Sub: Consent for Existing / New operation of the plant under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981.

Ref : Your online application ID No. 4620638 dtd. 03.01.2023

Consent is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed there under to

Name of the Industry: M/s GM Iron & Steel Company Ltd.,

At/PO – Kulei, Dist – Dhenkanal

Name of the Occupier & Designation; Mr. Kushal Choubey, Director

Address: Plot No-N/4-157, IRC Village Nayapalli, Bhubaneswar-751015, Dist-Khurda

This consent order is valid for the period from 01.04.2023 to 31.03.2024

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products Manufactured

Sl.No.	Product	Quantity
1.	Sponge Iron - DRI Kiln –I	1×100 TPD
2.	Sponge Iron - DRI Kiln –II	1x350 TPD
3.	Captive Power Plant	12 MW (8 MW WHRB + 4 MW AFBC)
4.	Induction Furnace	2x10 T/ Heat
5.	Continuous Casting Machine to produce Billets	75,000 TPA
6.	Rolling Mill	30,000 TPA



B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge	Prescribed standard
1.	Domestic effluent	Soak pit via septic tank	No discharge	--
2.	Cooling water	To be completely recycled	No discharge	--

C. Emission permitted through the following stack subject to the prescribed standard

Chimney / Stack No.	Description of Stack	Stack height (m)	Quantity of emission (Nm ³ /hr)	Prescribed Standard			
				PM mg/Nm ³	SO ₂	NO _x	CO (vol/vol)
1.	Stack attached to ESP of WHRB						
	DRI Kiln (100 TPD)	30	50,000	100			1%
2.	Common stack attached to ESP of WHRB of DRI Kiln (350 TPD)	56	90,000	50			1%
	AFBC Boiler	56	25,000	PM	SO ₂	NO _x	Hg
				50	600	450	0.03
3.	Bag filter attached to			PM (mg/Nm ³)			
	Coal handling plant (RMHS)	20	35,000	100			
	Transfer Circuit and I-Bin	20	35,000	100			
	Product House & Product Separation and cooler discharge.	20	50,000	100			
	Coal injection point	20	15,000	100			
4.	Stack attached wet scrubber of induction furnace	35	40,000	100			

D. Disposal of solid waste permitted in the following manner

Sl.No.	Type of Solid waste	Quantity generated	Quantity to be reused on site	Quantity to be reused off site	Quantity disposed off	Description of disposal site.
1.	Dolochar & dust from APC devices	315 TPD	--	--	315 TPD	Dolochar shall be utilized in AFBC boiler and other waste is dumped in designated Solid waste disposal site



2.	Slag from Induction furnace	16 TPD	--	--	16 TPD	After recovery of metal from slag will be disposed for low land filling.
3.	Ash	448 TPD	--	--	448 TPD	To be utilized in Brick making and Low Land Filling etc. as per Fly Ash Notification 31 st December, 2021 and amendment thereof

E. GENERAL CONDITIONS FOR ALL UNITS

- The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
- The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
- The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
- The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
- The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
- The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
- This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
- The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
- An inspection book shall be opened and made available to Board's Officers during their visit to the factory.
- The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
- Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
- Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - Industrial cooling, spraying in mine pits or boiler feed,
 - Domestic purpose
 - Process
- The applicant shall display suitable caution board at the lace where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
- Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
- The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.



16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
 17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
 18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
 19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
 20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or creates any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
 21. The sludge generated from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank of treatment plant.
 22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
 23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
 24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
 25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
 26. No control equipment or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
 27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner to meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
 28. The stack and ambient monitoring system installed by the applicant shall be opened for inspection to this Board at any time.
 29. There shall not be any fugitive or episodal discharge from the premises.
 30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
 31. The applicant shall keep the premises of the industrial plant and air pollution control equipment clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipment, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
 32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
 33. The industry has to ensure that minimum three varieties of indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
 34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipment collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
 35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
 36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
 37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
 38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
 39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
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40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. The industry shall comply to all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in. (if applicable)
43. The industry shall comply to the conditions stipulated in CTE order issued by ODISHA State Pollution Control Board and conditions stipulated in Environmental Clearances issued by MoEF, Govt of India.
44. The industry shall abide by E(P) Act, 1986 and Rules framed there-under
45. In case the consent fee is revised upward or the fees paid is found to be inadequate for any reason during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice.
46. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyze the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
2. The following information shall be forwarded to the Member Secretary on or before 10th of every month.
 - a) Performance / progress of the treatment plant.
 - b) Monthly statement of daily discharge of domestic and/or trade effluent.
3. Non-compliance with effluent limitations
 - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
 - i) Causes of non-compliance
 - ii) A description of the non-compliance discharge including its impact on the receiving waters.
 - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
 - b) The 1 of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.
6. The industry shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.
7. All employees of the industry including officers, staff, workers, contract workers involved in operation/maintenance/ supervision of process area, pollution control areas, raw material and waste handling areas shall undergo short term training at least twice in a year in the field of pollution control and environment protection to create awareness and develop green skill. The report on the activities along with details and photographs shall be submitted to the Board on annual basis by end of June for previous financial year.
8. ISO auditing reports of the industry in the field of environment shall be submitted to the Board every year on annual basis.
9. The environmental cell shall be established and upgraded effectively to guide, monitor the pollution control and environmental protection activities inside the industries on day to day basis to ensure that the conditions stipulated in the consent to establish/operate order of the SPCB and conditions imposed in EC and provisions of various environmental acts and rules are complied with and the report returns, compliances are submitted to the Board in due time.



10. Adequate numbers of scientific / technical persons having qualification in environmental engineering/ environmental science from recognized institution/ university must be engaged or appointed along with other interdisciplinary qualified persons to effectively implement and monitor different areas of environment management and regulatory compliances including air pollution control, water pollution control, online monitoring, real time data transmission, management of solid waste, hazardous waste, E-waste, plastic waste etc. The Head of the environmental cell should be a senior level official, who will directly report to the plant head to ensure that environmental management is performed effectively to ensure compliance to the environmental norms on priority basis.
11. Energy consumption data of different pollution control devices like ESP/ Bag filter/ Scrubber/ Cyclone/ Gas cleaning plant/ Fume treatment plant/ ETP/STP/Flow meters (treated effluent recycling) shall be collected online on real time centralized platform/ dashboard with data storage facility and generate tamperproof monthly / periodic reports, which shall be analysed by Energy Auditor, certified by Bureau of Energy Efficiency and accordingly the Energy Management / preventive maintenance of Pollution Control equipment shall be adopted. The energy management of process and pollution control devices shall be practiced to record the progressive achievements to minimize energy consumption in order to reduce greenhouse gas emission.
12. The post EIA monitoring schedule should be strictly followed for different parameters around the plant for the units is covered under EIA notification. The industry shall also conduct noise level study in the core zone and buffer zone of the industry and submit 6 monthly report to the Board.

F. SPECIAL CONDITIONS:

AIR POLLUTION CONTROL

1. All the air pollution control devices like ESPs / Bag filters installed at various process units shall be maintained, operated efficiently and continuously so that particulate matter emission from the stack shall meet the prescribed standard of the Board as indicated in 'Table-C'. The industry shall ensure continuous and effective operation of all the APC devices through preventive maintenance.
 2. There shall be no leakage of flue gas through the emergency caps, slip rings or any other process areas of DRI kilns except during exigencies.
 3. Steps shall be taken for regular monitoring of Mercury (Hg) in the stack of AFBC boiler and submit data to the Board.
 4. The unit shall provide low NOx burners to reduce NOx emission to keep the level within the prescribed standard by MoEF & CC vide Notification dtd. 07.12.2015.
 5. Steps shall be taken for installation of Flue Gas Desulphurisation (FGD) system in future if required to keep the SO₂ level within 600mg/Nm³ to conform the MoEF & CC Notification dtd. 07.12.2015. This shall also include management and disposal of effluent / solid waste to be generated from FGD system.
 6. Fume generated from the induction furnaces shall be collected through adequately designed swiveling hoods and treated in the wet scrubber, so as to meet the prescribed standard of Board indicated in **Table -C**. The industry shall ensure continuous and effective operation of such air pollution control system through preventive maintenance.
 7. All the online continuous stack emission monitoring systems (CEMS) for measurement of particulate matter and gaseous pollutants shall be operated effectively & uninterruptedly and real time monitoring data so generated shall be transmitted directly to RT-DAS server of the Board without passing through any local PC or server.
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8. The industry shall strictly follow the guidelines for continuous Emission Monitoring Systems dtd. August, 2018 for PM and other gaseous pollutants.
 9. The industry shall ensure tamper proof real time transmission of online monitoring data to the server of CPCB and SPCB and maintain the health of the analyzers and data connectivity through valid AMC.
 10. The Pneumatic Dust Handling system installed at the hoppers of all the ESPs and bag filters shall be operated continuously and effectively so that no fugitive dust nuisance is created.
 11. Telescopic chute shall be installed at the bottom of hoppers/silo wherever applicable to prevent emission of fugitive dust during material transfer/unloading.
 12. Iron ore and coal used in the plant shall be stored under covered shed. Material storage area of the plant, approach roads shall be covered with adequate sprinkling facility. The water sprinkling system shall be kept operational all the time to avoid any fugitive dust nuisance. Dry fog system shall be installed at the Coal circuit of both DRI section and power plants, which will operate as standby measures.
 13. Dust suppression facilities by provision of adequate water sprinkling shall be made at the active dumping area and roads to prevent dust nuisance in the area.
 14. The performance evaluation of ESP, bag filter, air pollution control devices, online CEMS, AAQMS & surveillance cameras shall conducted by a 3rd party expert agency and annual report shall be submitted to the Board by end of June for the previous financial year.
 15. The digital display board installed at the main gate shall be of minimum size of 6ft x 4ft as stipulated by CPCB with provision of display of real time data online analysers (CEMS, CAAQMS & CEQMS), so that the public can visualize the actual emission and the values of parameters displayed at the gate. Outdoor LED video screens should be preferred for digital display of environmental parameters, CTO and authorization conditions and awareness clippings on environment at the main gate, colony area and process area.
 16. The installed HD IP camera shall be operated continuously so that video streaming shows in server of the Board on interruptedly.
 17. Online analysers for measuring flow, temperature and velocity of flue gas shall be installed at the stacks and integrated with online CEMS data.
 18. The industry shall comply with all the stipulations contained in the Gazette Notification of Govt. of India vide No. 155, dtd. 31.03.2012 (copy enclosed). For emission standard, the details of 'Table-C' of this order is applicable.
 19. Accumulation of dust and other solid waste in the work zone and non-dumping areas inside the factory premises shall be avoided. The work zone shall be properly cleaned either manually or mechanically every day and the dust so collected shall be disposed off in the designated dump site.
 20. The approach roads and all the internal roads shall be fully concreted / blacktopped. All the roads shall be cleaned periodically to avoid accumulation of dust. Adequate sprinkling facility, preferably by fixed water sprinklers shall be provided alongside all the internal roads to prevent generation of fugitive dust during vehicular movement.
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21. D.G. sets should be acoustically enclosed with anti-vibration measures and equipped with A.M.F. (Auto Mains Failure Device) for auto changeover of power supply from grid to D.G. in the event of power failure. The AMF Panel should preferably be PLC (Programmable Logic Control) based. Dedicated D.G. sets of adequate capacity shall be installed to ensure adequate standby power supply to run all pollution control devices of the plant in the event of power failure.
22. The industry shall put up sign Boards at appropriate places with nomenclature of the stacks in consultation with Regional Officer of the Board. It shall install electronic display Board in front of main gate to display the monitoring data, prescribed standard for public information.
23. The ambient air quality shall conform to the National Ambient Air Quality standard as per the notification of MoEF dated 16 Nov 2009 (Annexed).

WATER POLLUTION CONTROL

1. Specific water consumption shall be limited within $3.5\text{m}^3/\text{MWh}$ as per MoEF & CC vide Notification dtd. 07.12.2015.
 2. Under no circumstances there shall be discharge of any effluent to outside the factory premises. Water used for cooling purposes shall be fully recycled. Water used in various processes shall be suitably treated and recycled in those processes.
 3. Waste water generated from raw water treatment system and back wash of filtration plant shall be properly treated and taken to guard pond and reused.
 4. DM plant regeneration effluent shall be neutralized in neutralization pit and reused for dust suppression.
 5. Blow down from AFBC / WHRB boilers and all the cooling towers shall meet the following standards before it is discharged to the common monitoring basin and shall be used for dust suppression;
 - a. For Boiler blow down: SS-100mg/l, O&G-20mg/l, Cu(Total)-1.0mg/l, Fe(Total)-1.0mg/l
 - b. For cooling tower blow down: Free available chlorine-0.5mg/l, Zn-1.0mg/l, Cr (Total)-2.0mg/l, Phosphate-2.0mg/l.
 6. The hot billets from continuous casting machine shall be feed to rolling mill to produce rolled products without reheating furnace.
 7. Cooling waters from CCM and Rolling Mill shall be completely recycled in a closed circuit.
 8. Mill scale generated from continuous casting machine shall be stored in a designated area and shall be reused in the process.
 9. Dumping of solid waste shall be made at designated locations in a systematic manner with proper engineering applications by providing proper slope, angle, berms, height, toe wall, retaining wall and road network. The active dumping area shall be kept at minimum. The exhausted dump area shall be technically reclaimed by spreading a layer of soil with proper compaction and consolidation. Biological reclamation of the same shall be made by planting saplings of appropriate species. Adequate provision for watering of plants and protection of trees shall be made.
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10. Fly ash generated from the power plant shall be fully utilized in various areas like brick making, tile making, road construction etc. in accordance with the Fly Ash Notification, 31st December, 2021 and amendment thereof.
11. The performance evaluation of ETP, STP, online CEQMS & Web cameras, flow meter shall conducted by reputed institute like NIT / IIT and annual report shall be submitted to the Board by end of June for previous financial year.
12. Flow meter and level sensors with telemetry system should be installed in the bore wells as stipulated by Central Ground Water Authority/ Water Resources Department.
13. The industry shall conduct surface run off management study and develop rain water harvesting structures and surface runoff treatment systems inside the premises
14. The industry shall explore to adopt chemical free automated self -maintained electrolysis system for removal of scale, corrosion, bio-film from cooling towers and automated tube cleaning system for heat exchangers and condensers with remote access and alarm system wherever applicable for conservation of water and energy to reduce wastewater generation and increase plant efficiency.
15. The industry shall operate surface runoff treatment system of 50m³/hr to meet the discharge norms and shall be completely recycled during dry season/ partly discharged specially during monsoon if unavoidable.
16. The industry shall have adequate space at point of time for waste disposal at least for a period of next two years. Before using any new patch of land / site for solid waste dumping, the industry shall obtain prior consent to establish of the Board.
17. Consent to operate is subject to availability of all other statutory clearances required under relevant Acts / Rules and fulfillment of required procedural formalities.

G) ADDITIONAL CONDITIONS

- a. The unit shall rectify HD IP Camera to show uninterrupted video streaming to the server of the Board within 15 days.
 - b. The unit shall complete the remaining 250 mtr internal road along the SMS shed within 02 months.
 - c. Soil cover shall be made over the existing solid waste dump area with plantation and toe wall within 02 months.
 - d. The unit shall install PDHS / Screw Conveyor System at bag filter hoppers of DRI unit for mechanised handling of dust within 02 months.
 - e. The unit shall provide bag filter at the stock house to control fugitive emission within 03 months.
 - f. The unit shall install STP for treatment of domestic effluent generated from the plant area as well as labour colony within 06 months.
 - g. The unit shall provide dry fog system at feed hopper of coal circuit and iron ore circuit within 02 month.
 - h. The unit shall maintain the approach road from NH to Plant gate with water sprinkling facilities to control fugitive emission during plying of vehicle.
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i. The unit shall not operate 1 x 4 T/Heat Induction Furnace and Rolling Mill-500 TPD till obtaining prior CTO from the Board.

j. The unit shall abide by the fuel policy of Govt. of Odisha.

The occupier must comply with the conditions stipulated in section A, B, C, D, E, F & G to keep this consent order valid.

To,

**The Director
M/s. GM Iron & Steel Company Ltd.,
Plot No-N/4-157. IRC Village Nayapalli,
Bhubaneswar-751015, Dist-Khurda**

Encl : As above


MEMBER SECRETARY
STATE POLLUTION CONTROL BOARD, ODISHA

Memo No. 5332 /Dt. 31-03-2023

Copy forwarded to:

- i) Regional Officer, State Pollution Control Board, Angul
- ii) District Collector, Dhenkanal
- iii) D.F.O, Dhenkanal
- iv) Director of Mines, Odisha, Bhubaneswar
- v) Director Factories & Boiler, Bhubaneswar
- vi) Consent Register / HWM Cell, Bhubaneswar




CHIEF ENV. ENGINEER
STATE POLLUTION CONTROL BOARD, ODISHA



General Standards for discharge of environment pollutants

PART-A:EFFLUENTS

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	-----	-----	
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5 ⁰ C above the receiving water temperature	-----	-----	Shall not exceed 5 ⁰ C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	-----	-----	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	-----	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	-----	-----	100
11.	Free ammonia (as NH ₃) mg/l max.	5.0	-----	-----	5.0
12.	Biochemical Oxygen Demand (5 days at 20 ⁰ C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	-----	-----	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	-----	0.001
16.	Lead (as pb) mg/l max.	01.	1.0	-----	2.0



17.	Cardmium (as Cd) mg/l max.	2.0	1.0	-----	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-----	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22.	Selenium (as Sc) mg/l max.	0.05	0.05	-----	0.05
23.	Nickel (as Ni) mg/l max.	3.0	3.0	-----	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	-----	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27.	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28.	Phenolic compounds as (C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29.	Radioactive materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁶ 10 ⁷	10 ⁷ 10 ⁶
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l



PART -B : NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual * 24 Hours **	50 80	20 80	-Improved west and Gacke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM ₁₀ µg/m ³	Annual * 24 Hours **	60 100	60 100	-Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual * 24 Hours **	40 60	40 60	-Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃) µg/m ³	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m ³	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m ³	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃) µg/m ³	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆) µg/m ³	Annual *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m ³	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m ³	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni),ng/m ³	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

TRAFFIC & LOS CALCULATIONS

The estimated quantity of raw materials, solid waste & products of proposed expansion project is as follows:

**TABLE-1.0
QUANTITY OF TOTAL MATERIALS TO BE TRANSPORTATED BY
ROAD FOR OVERALL PROJECT**

Raw material (A) (TPA)	Product (B) (TPA)	Solid Waste (C) (TPA)	Total Quantity (A+B+C) (TPA)
1,37,770	5,93,900	39,300	7,70,970
Total No. of Trucks per year (@45 tonne per Truck)			17133
Total No. of Trucks trips per day			47
Total No. of Trucks considering to & fro movement			24
Total No. of Trucks per hour			1

Thus, overall 7,70,970 TPA materials will be transported through road for the entire plant. Thus, around 24 trucks per day (1 truck per hour) will be required to transport the materials by road with the capacity of each truck being 45 Tons.

Impact due to transportation of plant workers during operation

There will be additional traffic load due to manpower movement during operation for proposed expansion project. There will be around Total 592 workers (100 permanent and 492 contractual) will be employed during operational phase to operate and maintain the proposed expansion project. It is estimated that around 50 persons will come to the plant by car, 200 persons will come on two wheelers and rest 342 persons will come to the plant by bicycle.

Combining the entire traffic load during plant operation, around 24 trucks per day will be required during material transportation. Besides, 50 no. Cars and 200 no. two wheelers will be used for transportation of workers and executives of the company during plant operation in a day. Considering to & fro movement, there will be total 47 trips of trucks, 100 trips of cars and 400 trips of two wheelers for the proposed expansion project in a day. Hence, per hour movement for the respective conveyance will be around 1 trip of trucks, 4.2 trips, say 5 trips of cars and 16.7 trips, say 17 trips of two-wheelers. Such

additional traffic load due to the man power movement & material transportation will be added to the present traffic load of the area, which is presented in the following section.

PRESENT TRAFFIC LOAD:

Presently, the background emissions in the project area are primarily confined to emissions from traffic plying on the adjacent Banarpal-Pallahara Road and NH-200. During the operation phase of the proposed expansion project, movement of goods' vehicles and loading and unloading operations may contribute to air emission. With stringent traffic management system within the project site, scope for air pollution due to movement of goods transports will be minimized. The layout of the project has generous area earmarked for greenery development. This will act as effective media for arresting the emissions within the project site.

The vehicular traffic plying in and out of the project site will be one of the significant sources of air pollution. If the site is not properly regulated, it can create disruption in free traffic movement leading to air pollution problems. This difficulty can be tackled to a great extent by properly regulating the traffic and by following strict and disciplined vehicular movement and operation at the project site. By imposing vehicular emission standards, this problem can be further curbed to a large extent. Adequate and planned road network will be set up at the project site for smooth movement of the goods vehicles.

Traffic density was monitored on following two locations, near the project site:

- a) **Location No. - 1** : near Pitri Square (NH-200)
- b) **Location No. - 2** : on Banarpal-Pallahara road

The data were recorded once for a day for continuous 24 hours in the month of December, 2022. Traffic density was monitored under four different vehicle categories i.e., Heavy, Medium, Light and two wheelers. The heavy vehicles included trucks, buses, cranes etc. The medium vehicles included mini buses, matadors etc. while cars, jeeps, auto rickshaws and trekkers were considered under the light vehicles category. The relevant account has been gathered in **Tables-2.0 & 3.0** respectively.

Future Traffic Load due to Project

The additional traffic load due to material as well as manpower movement after implementation of the proposed project has been

added to the existing traffic load at all the above mentioned points in Tables-2.0 & 3.0 respectively.

Comparison of overall Traffic load with IRC: 64 – 1990

The same has been compared with Indian Roads Congress code for Guidelines for Capacity of Roads in Rural Areas (IRC:64 – 1990 code).

TABLE-2.0
NAME OF THE LOCATION: NEAR PITRI SQUARE (NH-200)
DATE OF SAMPLING: 20.12.2022

HOUR	HEAVY	MEDIUM	LIGHT	TWO WHEELERS	TOTAL
0700 - 0800	99	71	152	186	508
0800 - 0900	107	58	195	205	565
0900 - 1000	112	89	210	171	582
1000 - 1100	100	69	140	105	414
1100 - 1200	65	60	68	105	298
1200 - 1300	86	22	52	92	252
1300 - 1400	126	15	77	70	288
1400 - 1500	109	36	26	61	232
1500 - 1600	30	88	30	87	235
1600 - 1700	118	92	135	176	521
1700 - 1800	67	31	110	158	366
1800 - 1900	100	43	98	127	368
1900 - 2000	78	88	102	135	403
2000 - 2100	48	40	95	86	269
2100 - 2200	20	24	64	95	203
2200 - 2300	53	5	31	80	169
2300 - 0000	52	21	20	46	139
0000 - 0100	30	9	5	17	61
0100 - 0200	10	14	4	10	38
0200 - 0300	75	2	0	2	79
0300 - 0400	21	5	0	0	26
0400 - 0500	52	19	17	30	118
0500 - 0600	29	11	38	40	118
0600 - 0700	78	28	60	92	258
Total	1665	940	1729	2176	6510
PCU Factor	3	1.5	1	0.5	
Existing PCU per day	4995	1410	1729	1088	9222
Addition for material movement due to Project	47	-	-	-	212
Addition for staff movement due to project	-	-	100	400	500
Grand Total	1712	940	1829	2576	7057
PCU Factor	3	1.5	1	0.5	
PCU per day after proposed expansion	5136	1410	1829	1288	9663
As per IRC: 64-1990 code, Table no 2, a Four Lane divided 2 way road in Plain					

terrain can accommodate vehicular traffic load of 86,400 PCU per day.

NH-200 is a Four Lane divided 2 way road and can well accommodate existing traffic load along with the additional load due to the proposed expansion project.

Note :

HEAVY : Truck, Bus, Cranes **MEDIUM** : Minibus, Matador

LIGHT : Car, Jeep, Auto Rickshaw, Trekker

TABLE-3.0

NAME OF THE LOCATION : ON BANARPAL-PALLAHARA ROAD

DATE OF SAMPLING: 20.12.2022

HOUR	HEAVY	MEDIUM	LIGHT	TWO WHEELERS	TOTAL
0700 - 0800	37	24	43	67	171
0800 - 0900	57	42	70	75	244
0900 - 1000	52	26	45	60	183
1000 - 1100	57	17	20	52	146
1100 - 1200	35	10	31	25	101
1200 - 1300	36	24	28	58	146
1300 - 1400	21	20	17	40	98
1400 - 1500	10	15	16	51	92
1500 - 1600	53	14	27	33	127
1600 - 1700	45	30	33	42	150
1700 - 1800	58	42	55	81	236
1800 - 1900	55	32	29	63	179
1900 - 2000	40	8	18	44	110
2000 - 2100	35	15	25	26	101
2100 - 2200	40	11	16	34	101
2200 - 2300	28	12	23	21	84
2300 - 0000	3	10	16	12	41
0000 - 0100	15	13	4	7	39
0100 - 0200	7	7	1	9	24
0200 - 0300	5	9	2	12	28
0300 - 0400	13	4	0	23	40
0400 - 0500	9	6	11	36	62
0500 - 0600	16	21	26	16	79
0600 - 0700	40	33	48	39	160
Total	767	445	604	926	2742
PCU Factor	3	1.5	1	0.5	
Existing PCU per day	2301	668	604	463	4036
Addition for material movement due to Project	47	-	-	-	212
Addition for staff movement due to project	-	-	100	400	500
Grand Total	814	445	704	1326	3454
PCU Factor	3	1.5	1	0.5	
PCU per day after proposed expansion	2442	668	704	663	4972

As per IRC: 64-1990 code, Table no 4, a Two Lane road in Plain terrain can

accommodate vehicular traffic load of 15,000 PCU per day.
This Banarpal-Pallahara Road is two lane road with approx. 8 m width and can well accommodate existing traffic load along with the additional load due to the proposed expansion project.
Note : HEAVY : Truck, Bus, Cranes MEDIUM : Minibus, Matador LIGHT : Car, Jeep, Auto Rickshaw, Trekker

Existing PCU and existing level of service (LOS) for the 2 Locations are presented below:

Road (Location)	Volume PCU/day	Capacity	Existing V/C	LoS
NH-200 near Pitri Square	9222	86,400	0.106	A
Banarpal Pallahara Road -	4036	15,000	0.27	B

Incremental PCU Load per day for the proposed project is 441. PCU load per day after proposed expansion project and level of service (LOS) at the 2 Locations are presented below:

Road (Location)	Volume PCU/day	Capacity	V/C	LoS
NH-200 near Pitri Square	9663	86,400	0.11	A
Banarpal Pallahara Road -	4972	15000	0.33	B

* Note: Capacity as per IRC 64-1990 Guide line recommended design service is 86,400 PCU/day for 4 lane divided two way roads and 15,000 PCU/day for 2 lane roads respectively.

Conclusion: The level of service will be “A” in Location T1 and B in Location T2 including additional traffic due to proposed expansion cum modification project.

V/C ratio	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good
0.6-0.8	D	Fair/Average
0.8-1.0	E	Poor
>1.0	F	Very Poor

PUBLIC HEARING

Details of advertisement given	27 th September, 2021
Date of Public Consultation	3 rd November, 2021
Venue	Rajiv Gandhi Seva Kendra, Under Gengutia GP, Parjang Tehsil, District - Dhenkanal, Odisha
Presiding Officer	Sri Sashank Sekhar Dash, Additional District Magistrate, Dhenkanal District
Major issues raised	<ul style="list-style-type: none"> • Air, Noise and Water Pollution Control • Afforestation programme • Local employment opportunity based on Educational Qualification • Employment Opportunity to Land Affected Family Members • Provision of Health checkup camp at different villages on yearly basis • Provision for repair and maintenance of village roads with street light facility • No discharge of wastewater to perennial nallah adjacent to factory premises • Peripheral development in nearby areas / villages • Demand for equal salary for equal work • Provision of drinking water supply during summer time

It has been decided to develop three nearby villages namely Kulei, Gengutia and Kualo by addressing the socio-economic needs of the villagers.

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Air, Noise and Water Pollution Control	<ul style="list-style-type: none"> Adequate control measures like installation of ESP, Bag filters, dust suppression system & stacks of adequate height at relevant places. Air borne dust shall be controlled by mobile water tanker inside the plant premises. Maintenance of air pollution control equipment shall be done regularly. All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. No waste water will be discharged outside the plant area. The plant is designed as a zero discharge plant. The entire wastewater will be recirculated and recycled. The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be arranged. 	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget in Lakhs	Included in the EMP Cost. (Total EMP Cost Capital - Rs. 52.07 Crores Recurring - Rs. 5.00 Crores / annum)			

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Afforestation programme	Proper plantation of trees will be done inside the plant premises. 40% of the total project area shall be covered under Breen Belt.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			
		Budget in Lakhs	Green Belt cost is included in the EMP cost (Total EMP Cost Capital - Rs. 52.07 Crores Recurring - Rs. 5.00 Crores / annum)			
Employment of local people	In the proposed project, top most priority will be given to the local people based on their academic qualification. Skill development for unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructure for this purpose.	Physical Target	Construction of 4- room training building (3000 sq.ft area) and installation of 8 sewing machines, 8 computer systems & 4 machines for making hand craft items along with necessary raw materials, based on the need of the local people			92
		Budget in Lakhs	40	40	12	

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Organizing Health Checkup Camps at different villages on yearly basis	Health camps shall be organized in the surrounding villages for health check-up of the local villagers.	Physical Target	It will be done on regular basis.			-
		Budget in Lakhs	Adequate fund will be allocated under CSR budget			
Maintenance & Repairing of roads in the surrounding areas (*)	Repairing of the local connecting road to NH and repairment of road with land (12 km) at Kulej village (@Rs. 18,00,000/- per Km) in the nearby villages	Physical Target	Repairing of the 4 km local connecting road to NH	4 km road at Kulei village	4 km road at Kulei village	216
		Budget in Lakhs	72	72	72	
Street lighting facility for the roads	Street Lighting (Solar) provision at suitable public places in and around the nearby villages (90 numbers, @ Rs. 20,000/- per Solar Light)	Physical Target	Providing 90 nos. Solar light at village Kulei			18
		Budget in Lakhs	18	-	-	

(*) These roads shall be properly maintained by the company and adequate fund will be allocated for the same under CSR of the company

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
No discharge of wastewater to perennial nallah adjacent to factory premises	The plant is designed as a zero discharge plant. The water will be recirculated through cooling and treatment. The entire waste water will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Sewage Treatment Plant (STP). Nallah protection plan has also been formulated.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			
		Budget in Lakhs	Included in the EMP Cost. (Total EMP Cost Capital - Rs. 48.7 Crores Recurring - Rs. 5.00 Crores / annum)			

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Peripheral development in nearby areas / villages	Maintenance of local schools building, playground, class rooms, library facilities, green belt development and providing computers in the Local Schools.	Physical Target	Repairing of school building and constructing 4 extra class rooms and green belt development in Kualo ASVN (High School), Nodal Primary school Kualo and Taleswar Vidyapith, Kulei	Supplying desks, benches, chairs, blackboards in Paramhanspur Primary School and UP School Kulei.	Development of library and providing books and Providing 10 nos. of computers to Paramhanspur UP School and UP School Gengutia.	35
		Budget in Lakhs	20	10	5	

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)	
			1 st Year	2 nd Year	3 rd Year		
Peripheral development in nearby areas / villages	Development and maintenance of existing ponds in the local villages	Physical Target:	Dev. & maintenance of 2 ponds at village Kulei	Dev. & maintenance of 1 pond at village Gengutia	Dev. & maintenance of 2 ponds at village Kualo	18	
		Budget in Lakhs	6	6	6		
	Providing green and blue Dustbins in the surrounding villages (under Swachh Bharat Scheme) for waste segregation and handling	Physical Target:	Providing 300 green dustbins and 300 blue dustbins at four villages namely Khalapal, Gengutia, Kulei & Kualo	-	-	-	6
		Budget in Lakhs	6	-	-		

**POINT-WISE COMPLIANCE TO THE ISSUES RAISED DURING PUBLIC HEARING
ALONG WITH ACTION PLAN AS PER MoEF&CC O.M. DATED 30/09/2020
TIME FRAME : THREE YEARS AND BUDGETARY PROVISION**

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Provision of Drinking Water supply during summer time	Drinking water shall be supplied through tanker and tubewells shall be installed for drawing drinking water. 12 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target	Procurement of 2 tankers	Development of 6 tube wells at Kulei village	Development of 6 tube wells at Gengutia village	22
		Budget in Lakhs	16	3	3	
	Construction of 4 no of ground water Recharging system for rainwater in nearby villages (@2.5 lakhs per system). Rain Water Harvesting ponds in nearby villages (2 nos. @ Rs. 5 Lakhs per pond).	Physical Target	Construction of 1 Rain Water storage pond and 2 rainwater recharge structures at Kulei village	Construction of 1 Rain Water storage pond and 1 rainwater recharge structure at Gengutia village	Construction of 1rainwater recharge structure at Kualo village	20
Budget in Lakhs	10	7.5	2.5			
Total Budget - Public Hearing related: Rs. 427 Lakhs						

NEED BASED ACTIVITIES

TIME FRAME : THREE YEARS AND BUDGETARY PROVISION

Need based Activities	Particulars	Year of Implementation		
		1 st Year	2 nd Year	3 rd Year
Construction of W/C/Toilet (2) each - 9 numbers (@ Rs. 3.00 Lakhs per set of 2 Toilets).	Physical Target:	Construction of 6 nos. Toilets 02 each at Gengutia, Kulei & Kualo	Construction of 3 nos. Toilets 01 each at Gengutia, Kulei & Kualo	-
	Budget : Rs. 27.0 Lakhs	Rs. 18 Lakhs	Rs. 9 Lakhs	-
Creation of irrigation and other agricultural infrastructures in the peripheral villages and conservation of nearby forest. (*)	Physical Target:	Supplying crop harvesting machines	Supplying pest control machines	Supplying tractors to farmers
	Budget : Rs. 55 Lakhs	Rs. 15 Lakhs	Rs. 10 Lakhs	Rs. 30 Lakhs
Drainage Development & maintenance - Side drains & Culvert	Physical Target:	Development & maintenance of drains & Culvert on drainage in adjacent villages	Development & maintenance of drains & Culvert on drainage in adjacent villages	Development & maintenance of drains & Culvert on drainage in adjacent villages
	Budget: Rs. 75 Lakhs	Rs. 25 Lakhs	Rs. 25 Lakhs	Rs. 25 Lakhs
Providing transportation to school students of nearby villages	Physical Target:	Provision of bus	Provision of bus	Provision of bus
	Budget : Rs. 30 Lakhs	Rs. 10 Lakhs	Rs. 10 Lakhs	Rs. 10 Lakhs
Total Budget - Need based activities : Rs. 187 Lakhs				
Overall Budget (Public Hearing related + Need based Activities): Rs. 614 Lakhs				

(*) adequate fund will be allocated for conservation of nearby forests under CSR of the company⁹

TOTAL BUDGET - CER

Total Budget - Public Hearing related: Rs. 427 Lakhs

Total Budget - Need based activities : Rs. 187 Lakhs

Overall Budget (Public Hearing related + Need based Activities): Rs. 614 Lakhs

Note: Adequate fund will be allocated for village road maintenance, medical facilities for villagers, educational support, drinking water supply etc. under CSR of the company

Adequate fund will be allocated for conservation of nearby forests under CSR of the company.

NGT CASE SUMMARY

Santanu Kumar Bhukta & Anr v/s . M/s GM Iron & Steel Company Ltd & Ors [O.A. No. 45 of 2022 EZ]

S. No.	Order Date	Particulars
1.	10.05.2022	<p>Order of the Tribunal in OA no. 45/2022- Notice issued to Respondent No. 1-13.</p> <p>The Tribunal constituted a committee and directed the committee to submit its report regarding the allegations made in the instant OA as well as the environmental violations.</p> <p>R-5 (SEIAA, Odisha) directed to be deleted from the array of Respondents as they have wrongly been impleaded.</p> <p>Matter listed on 04.07.2022</p>
2.	04.07.2022	Matter Adjourned to 15.07.2022
3.	15.07.2022	<p>Order of the Tribunal in OA no. 45/2022 granting 4 weeks' time to the R-11(MoEF&CC) for filing counter affidavit to bring on record the inspection report.</p> <p>R1 and R12 (Central ground water authority) granted 4 weeks' time to file Counter Affidavit.</p> <p>Matter listed on 22.08.2022</p>
4.	22.08.2022	<p>Order of the Tribunal in OA no. 45/2022 giving the following directions:</p> <ul style="list-style-type: none">• The State Respondents directed to file their affidavit showing whether the encroachments have been removed and what disciplinary action has been taken against the person who was the Tahasildar at the relevant point of time.• Respondent No.3, District Collector, Dhenkanal, directed to file affidavit explaining as to why appropriate action was not taken against the Respondent No.1 at the relevant point of time and why the Respondent No.1 was allowed to encroach upon 8 acres of Revenue Forest Land including 2.54 acres of Non-forest Govt. Land.• The Committee was directed to submit a fresh inspection report as the report did not mention whether R1 was operating with a valid EC or not.• R1 was granted 3 days for filing counter affidavit. <p>Matter Listed on 29.09.2022</p>
5.	23.09.2022	<p>Order of the Tribunal in I.A No. 210/2022/EZ in OA no. 45/2022 gave the following direction:</p> <ul style="list-style-type: none">• R-1 to serve soft copies of the IA to all other Respondents.• Parties to maintain status-quo till 26.09.2022• IA disposed of.
6.	26.09.2022	<p>Order of the Tribunal in OA no. 45/2022 giving the following directions:</p> <ul style="list-style-type: none">• R-4 (OSPCB) granted 2 weeks' time to file counter affidavit.• IA 215/2022 filed by R-7 (Tahsildar) seeking intervention in response to Order dtd 22.08.2022- allowed• IA 216/2022 for additional documents filed by R-1- allowed• IA 217/2022 filed by the Applicant for bringing on record photographs and documents praying for vacation of interim order dtd 23.09.2022• The State respondents were directed to ensure demolition of the temple by Next Date of Hearing.• The committee constituted by the Tribunal was directed to file its report by Next Date of Hearing.• Encroachment over non-forest land does not come within the

		<p>jurisdiction of this Tribunal.</p> <ul style="list-style-type: none"> • Interim order granted on 23.08.2022 vacated and IA 217/2022 filed by the Applicant for vacation of interim order dtd 23.09.2022 disposed of. • IA 218/2022 filed by r-7 (Tehsildar) praying to expunge the remarks made against him in order dtd. 22.08.2022-will be considered at the time of NDoH.
7.	14.10.2022	Affidavit dtd. 10.10.2022 by R-3 (Collector), Affidavit dtd. 12.10.2022 by R-4 (OSPCB) and the Committee report was taken on record. Matter adjourned to 25.11.2022
8.	25.11.2022*	<ul style="list-style-type: none"> • Objections by R-1 taken on Record • Counter Affidavit by R-9 (CPCB) taken on record. • Post-Monsoon Inspection Report to be filed within 3 weeks. • R-12 & R-13 (CGWA) sought adjournment. • IA/218/2022/EZ to expunge some remarks against the Tehsildar which will be taken up at the time of disposing of OA.
9.	09.01.2023	<ul style="list-style-type: none"> • Supplementary Affidavit dtd. 16.12.2022 filed by R-12 & 13, Central Ground Water Board, taken on record. • R-4 (OSPC) granted 5 weeks to file its Affidavit. • It was directed that the Affidavit of R-4 shall also address as to whether, after the closure notice issued on 29.10.2021, a fresh inspection was conducted before allowing the industry to operate with its full capacity vide Board's order dated 28.01.2022 and if not, why was the industry in question allowed to operate only on the basis of a Bank Guarantee of Rs. 11.85 lakhs? • R-4 was also directed to give a para-wise reply to the averments made in the Original Application. • Next Date of Hearing - 20.02.2023
10.	20.02.2023	• Matter adjourned to 20.03.2023
11.	20.03.2023	• Matter adjourned to 10.04.2023
12.	10.04.2023	• Matter adjourned to 08.05.2023
13.	08.05.2023	<ul style="list-style-type: none"> • Counter Affidavit filed by R-4 (OSPCB) is on record. • Applicant has filed a rejoinder to the said Counter Affidavit. • R-1 was granted two weeks to reply to the same. • Next Date of Hearing - 26.05.2023
14.	26.05.2023	• Matter adjourned to 26.07.2023

*In compliance to order dated 25.11.2022, CPCB conducted Inspection on 29.04.2023 and accordingly prepared the report which is already filed in the court. The inspection report is enclosed herewith as Annexure.

The matter will be placed in the next hearing on 26.07.2023.

CASE DETAILS

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
ORIGINAL APPLICATION NO. 45 OF 2022 / EZ

IN THE MATTER OF:

Santanu Kumar Bhukta ...Applicant

VERSUS

M/s. G.M.Iron & Steel Co. Ltd. & Others ... Respondents

INDEX

Sl. No.	Description of the documents	Page Nos.
1.	Additional Affidavit.	
2.	Photocopy of the committee report for inspection carried out on dtd.10-11 th March 2023. (ANNEXURE – R4/16 Colly)	

SPCB Odisha, R.No.4

Through

Sri Dipanjan Ghosh,
Advocates for the Respondent No.4
(State Pollution Control Board, Odisha)
e-mail: dpnjnghsh0@gmail.com
Phone No.:9903080977

Kolkata
Date:

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
ORIGINAL APPLICATION NO. 45 OF 2022 / EZ

18 MAY 2023

IN THE MATTER OF:

Santanu Kumar Bhukta ...Applicant

VERSUS

M/s. G.M.Iron & Steel Co. Ltd. & Others ...Respondents

ADDITIONAL AFFIDAVIT ON BEHALF OF
STATE POLLUTION CONTROL BOARD,
ODISHA, RESPONDENT NO.4 IN
COMPLIANCE TO DIRECTION
DTD.08.05.2023.

I, Dr. Kailasam Murugesan, IFS, son of late
Paramasivam Kailasam aged around 54 years, at present
working as Member Secretary, State Pollution Control Board,
having my office at Paribesh Bhawan, A/118, Nilakantha
Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda,
Odisha-751012, do hereby solemnly affirm and state as under:



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD. NO. ON-71/2009
PH:-9437627119 (M)

[Handwritten Signature]

1. That I am the Member Secretary of the Respondent No.4 Board and, as such, am well-acquainted with the facts and circumstances with the case and competent to swear this affidavit.
2. That this Hon'ble Tribunal in their order dtd.8.5.2023 while taking note of the affidavit dtd.3.5.2023 filed by the R.No.4 Board have allowed to file the committee report.
3. That in compliance to the said direction, the report of the committee for inspection carried out on dtd.10-11th March 2023 is annexed to this affidavit and marked as ANNEXURE-R4/16 Colly.
4. That in the report at Annexure-R4/16 Colly, the committee has referred to the earlier inspection report carried out on 15.09.2022 which has already been submitted by the R.No.4 Board vide Annexure-R4/2 Colly in the affidavit dtd.12.10.2022, which has also been taken note of by the Hon'ble Tribunal in their order dtd.14.10.2022.

[Handwritten Signature]



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD. NO. ON-71/2009
PH:-9437627119 (M)

[Handwritten Signature]
18/05/23

5. That the Respondent No.4 Board craves the leave of this Hon'ble Tribunal to file further affidavit if necessary for proper adjudication of this case.
6. That the annexure annexed to the present affidavit is true and correct copy of its original.
7. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.

[Handwritten Signature]
DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 18th day of May,

2023.

SWORN BEFORE ME



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD. NO. ON-71/2009
PH:-9437627119 (M)

[Handwritten Signature]
18/05/23

[Handwritten Signature]
DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

**COMMITTEE REPORT ON AMBIENT AIR QUALITY AND SOURCE EMISSION MONITORING IN
OA NO.45/2022/EZ, SANTUNU KUMAR BHUKTA & ANR. VS M/S GM IRON & STEEL
COMPANY LTD. & ORS.**

Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in Original Application No. No.45/2022/EZ in the matter of Santunu Kumar Bhukta & Anr. Vs M/s. GM Iron & Steel Company Ltd. & Ors. vide its order dated 22.08.2022 has asked the committee to;

'We, therefore, direct the Committee to re-inspect the site of the Respondent No. 1 during the monsoon itself when it is operational and carry out Ambient Air Quality Monitoring and thereafter, take another inspection reading after the monsoon to give a clear picture of the level and extent of pollution as alleged to have been caused by the Respondent No. 1 industry.'

In response to the above referred order of the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in Original Application No.45/2022/EZ, committee comprising the following officials have jointly visited the industry, M/s. G. M. Iron and Steel Company Ltd. (formerly known as Rana Iron & Power Ltd.), at PO- Kulei, Parjang, Dist- Dhenkanal during 10-11 March, 2023 carry out Ambient Air Quality Monitoring and Stack Emission Monitoring during post monsoon period.

- a) Shri Udaya Kumar Mohapatra, OAS(S) , Additional District Magistrate, Dhenkanal
- b) Shri Sandeep Nandi, Scientist 'B', MoEF&CC, Integrated Regional Office, A/3, Chandrasekharpur, Bhubaneswar, Odisha-751023
- c) Md Abdur Rafique, Scientist-B, CPCB, Eastern Regional Directorate, Kolkata, West Bengal - 700107
- d) Shri Subrat Kumar Patra, OFS-A (JB), Asst. Conservator of Forests, Dhenkanal Forest Division, Dhenkanal
- e) Dr. Anup Kumar Mallick, Regional Officer, SPCB, Angul, Odisha

Tahasildar, Parjang, Dhenkanal accompanied the committee during site visit/inspection.

Officials of M/s. G. M. Iron and Steel Company Ltd. (formerly known as Rana Iron & Power Ltd.), at PO- Kulei, Parjang, Dist- Dhenkanal were also present during site visit.

Report on Ambient Air Quality and Source Emission monitoring:

- During inspection, the ambient air quality and stack emission monitoring were carried out by CPCB and OSPCB. The samples were analysed at CPCB, RD Kolkata laboratory, which is an EPA recognised laboratory.
- Source emission monitoring was conducted on 10th March, 2023 at the following locations:
 1. Common stack connected to ESPs of 350 TPD kiln and AFBC Boiler and
 2. Stack connected to ESP of 100 TPD Kiln

PM concentration in stack connected to ESPs of 350 TPD kiln and AFBC boiler was observed as 51 mg/Nm³ which marginally exceeds the limit of the prescribed standard of 50 mg/Nm³. However, PM concentration in stack connected to ESP of 100 TPD kiln was observed as 67 mg/Nm³ which is within the limit of the prescribed standard of 100 mg/Nm³.

- 24-hour Ambient Air Quality monitoring was conducted during 10-11 March, 2023 at the following locations:
 1. Near Office area and
 2. Boundary near Kulei village

Results of the same are tabulated below:

Date and Time	Location	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
10.03.23 (Shift I)	Near Office Area	93	78	6	44
10.03.23 (Shift II)		88		3	30
10-11.03.23 (Shift III)		153		3	33
24-hr Avg value		111	78	4	36
Prescribed Standard		100	60	80	80
10.03.23 (Shift I)	Boundary Near Kulei Village	110	94	3	15
10.03.23 (Shift II)		111		<3	19
10-11.03.23 (Shift III)		477		<3	32
24-hr Avg value		233	94	<3	22
Prescribed Standard		100	60	80	80

Results of the ambient air quality monitoring reveals that 24-hourly average value of PM₁₀ (111 µg/m³ at near office area and 233 µg/m³ at boundary near Kulei village) and PM_{2.5} (78 µg/m³ at near office area and 94 µg/m³ at boundary near Kulei village) at both the location exceeds the National Ambient Air Quality Standard (2009) of 100 µg/m³ and 60 µg/m³ respectively. However, 24-hourly

average value of SO₂ and NO₂ are within the prescribed standard at both the location.

Present status on the observation made by the committee during earlier inspection dated 15.09.2022:

S.N.	Comments/ Recommendations	Observations on 10.03.2023
1.	The industry M/s. G. M. Iron & Steel was violating the norms of emission prescribed standards of 50 mg/Nm ³ .	It is observed from the results of Stack monitoring conducted on 10.03.2023 at the Common stack connected to ESPs of 350 TPD kiln and AFBC Boiler that PM concentration in flue gas was 51 mg/Nm ³ against the prescribed emission standards of 50 mg/Nm ³ . During last inspection dated 15.09.2022, PM level was observed 538 mg/ Nm ³ .
2.	There was no Separate Electricity Meter and totaliser for the Air Pollution Control Equipment and no record was maintained properly.	It was observed that separate electricity meter and totaliser have been installed at the APC devices and records were maintained. Copy of log book of energy meter from December 2022, as provided by the industry is enclosed as <u>Annexure-1</u> .
3.	Heap of accumulated dust were observed near the DRI plant, in between kiln and raw material transfer section (Fig. 01) indicates there was huge emission from the said Industry.	Dust accumulated near the DRI plant, in between kiln and raw material transfer section was observed to be cleared. As informed by the unit, the accumulated dust has been used for filling of the low lying area of the unit.
4.	Backside boundary wall of the unit was also found in broken condition, so there are chances of leakage of any kind of pollutants from industrial run-off in the outside premises and ultimately it may	Backside boundary wall of the unit along the Ghambharia Nallah in the western side of the plant has been repaired. However, the industry has not

	flow to the river Brahmani through the Ghambharia Nallah.	constructed the boundary wall around the dump of residual iron ore fines and solid waste dump site.
5.	The housekeeping of the industry was in poor condition. The concrete roads to all the units are not yet completed.	Inside the plant premises, the road length is 2.5 km and as observed, approximately 90% of the roads has been concreted/black topped. Road adjacent to the SMS building in the south side has not been concreted. However, as reported by the industry, completion of the remaining work of concreting will be completed within two months.
6.	No records were found for fly ash generation / disposal, as per Fly Ash Notification 1999.	It was observed that industry has maintained the record for fly ash/dust generation and disposal. Copy of records provided by industry attached as <u>Annexure-2</u> .
7.	Vehicle movements were not observed during the inspection day.	During visit vehicle movement in raw material handling area and product despatch area was observed.
8.	No separate Environment Division was existing in the industry to look after continuous operation of all pollution control devices round the clock.	Industry has formed an Environment Division. Details of Environment Division provided by the plant authority is enclosed as <u>Annexure-3</u> .
9.	Online OCEMS was not calibrated since installation, as reported.	Online OCEMS has been calibrated on 11 th November, 2022 which is valid till 10 th November, 2023. However, the OCEMS data as transferred to CPCB server (13 mg/ Nm ³) is not comparable with the monitoring value of 51 mg/Nm ³ . Copy of calibration certificate of OCEMS provided by the industry

		enclosed as <u>Annexure-4</u> .
10.	Sampling platform of the stack attached with ESP of 350 TPD rotary kiln was found at a stretch & continuous height of more than 20 meter which was not in compliance w.r.t. OCEMS standard guidelines.	It is yet to be modified/renovate. However, as reported by the industry, the renovation work of the same will be completed within 3 months.
Recommendation		
1.	PM concentration must be maintained as per existing prescribed standards in the consent.	Industry may be directed to initiate necessary measures to minimize the PM level as per the CTO prescribed standard.
2.	The safety cap/emergency stack of rotary kiln should not be used for discharging untreated emission, bypassing the air pollution control device.	It was reported by the plant authority that ESPs are operated all the times except during certain exigencies such as i) during startup of the Kilns ii) during shut down of the Kilns iii) temporary power failure, iv) mechanical / electrical failure of any of the ESP components. During such exigency like failure of ESP components, the plant takes the concerned Rotary Kiln into hold mode, temporarily suspended the production till appropriate rectification jobs are made and ESPs are put into normal operating condition. During instant power failure a spurt of emission takes place from the Kiln for a period of 10 to 15 minutes, since the DG sets which supplies backup power to operate ESP needs at least 10 minutes to synchronize its operation with the process unit. During start up and shut

		<p>down of the kiln there is inevitable emission through emergency stack cap from the kilns for a period of 8 to 10 hours.</p> <p>During visit emergency stack cap of both the DRI kilns were found closed, no leakage was observed from the stack cap.</p> <p>Since the plant is having captive power plant, such power failure shall be minimized. The unit shall maintain record of use of emergency stack cap and report to OSPCB on monthly basis.</p>
3.	All Air Pollution Control Equipment must be provided with electricity meter and Totaliser for continuous recording of power consumption.	It was observed that separate electricity meter and totaliser have been installed at the APC devices and records were maintained. Copy of log book of energy meter submitted by the industry is enclosed as <u>Annexure-1</u> .
4.	The unit may repair the boundary wall on the west side of the industrial premises.	The unit has failed to construct boundary wall in western side of the plant along solid waste dump site till date.

Report on Recommendations of Committee during previous inspection on 08.06.2022:

S.N.	Recommendations	Observations on 10.03.2023
1.	Committee desires to conduct inspection and stack with Ambient Air Quality monitoring of industry during its full operation after monsoon period to assess	Ambient Air Quality and Source Emission monitoring was conducted during inspection. Results of the same are described in Page No 2.

	effective operation of Air Pollution Control Devices and adequacy of pollution control measures adopted by the industry.	
2.	Repairing/construction of boundary wall along Gambharia nallah and increase of height of entire boundary wall of the plant.	Boundary wall along Gambharia Nallah in the northern side of the plant has been repaired, however, height of entire boundary wall of the plant has not been increased.
3.	Construction of boundary wall around solid waste dump site and along western side of the plant area.	Boundary wall around solid waste dump site and along western side of the plant area has not been constructed.
4.	Concreting of remaining internal roads to control fugitive dust emission.	Inside the plant premises, the road length is 2.5 km and as observed, approximately 90% of the roads has been concreted/black topped. Road adjacent to the SMS building in the south side has not been concreted. However, as reported by the industry, completion of the remaining work of concreting will be completed within two months.
5.	Time bound disposal of dolochar and other solid wastes dumped inside plant premises.	Records of disposal of dolochar and other solid wastes submitted by the plant authority is enclosed as <u>Annexure-5</u> .
6.	Industry shall provide boundary wall around the dump of residual iron ore fines. Garland drain around the dump area followed by settling pond shall be provided to avoid flow of surface runoff to adjacent areas.	Industry has not yet provided the boundary wall around the dump of residual iron ore fines. Industry has provided drain along northern and western side of the dump area followed by a settling pit.

Recommendations:

1. Industry shall initiate necessary measures to minimize the PM level as per the CTO prescribed standard.
2. The unit shall perform validation and re-calibration of the OCEMS installed in both the stack in presence of SPCB officials, as the values are not comparable.
3. Industry shall concrete all its remaining work zone areas to improve housekeeping and reduce dust emission.
4. Industry shall stabilize the solid waste dump site using soil cover followed by coir matting along the slope of the dump and plantation over top of the dump.
5. Industry shall not dispose/dump any waste over Govt./Private land outside the plant premises without prior permission/consent from the SPCB and concerned departments. The Collector & District Magistrate, Dhenkanal has formed a district level committee to address the issues related to dumping of ash/wastes in Govt./Private land by ash generating agencies.
6. Industry shall construct the boundary wall around the dump of residual iron ore fines and solid waste dump site.
7. Industry shall renovate the sampling platform of the stack connected to ESPs of 350 TPD kiln and AFBC boiler.
8. Industry shall concrete the approach road connecting Plant gate and Banarpal-Pallahara road.

Svandi
15-04-23

Shri Sandeep Nandi, Scientist 'B'
Integrated Regional Office, MoEF & CC,
Chandrashekharpur, Bhubaneswar, Odisha

[Signature]
15/4/2023

Shri Udaya Kumar Mohapatra, OAS(S)
Additional District Magistrate,
Dhenkanal, Odisha

A. R. B.
15/4/2023

Md Abdur Rafique, Scientist-B
CPCB, Eastern Regional Directorate, Kolkata,
West Bengal

[Signature]
15/04/23

Shri Subrat Kumar Patra, OFS-A (JB),
Asst. Conservator of Forests, Dhenkanal Forest
Division, Dhenkanal, Odisha

[Signature]
15-04-23

Dr. Anup Kumar Mallick, Regional Officer
State Pollution Control Board, Angul, Odisha



EPBX: 2561909/2562847

Email: paribesh1@ospcbboard.orgWebsite: www.ospcbboard.org

STATE POLLUTION CONTROL BOARD, ODISHA
[FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT, GOVT. OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII,
 Bhubaneswar 751012

No 8024 / IND-I-CON- 4699Dt 20-05-2023

To

The Director
 M/s. GM Iron & Steel Company Ltd.,
 N/4 - 157, IRC Village, Nayapalli,
 Bhubaneswar - 751015, Odisha.

By E-Mail/speed post
 gmsteelbbsr@gmail.com

Sub: Verification of compliance status w.r.t. Environmental Clearance submitted to MoEF on Parivesh Portal for "Modernization & Expansion of existing Iron & Steel Plant" of M/s. GM Iron and Steel Company Limited located at Kulei, Dist-Dhenkanal, Odisha - Reg

Ref: Your Letter No. GMISCL/SPCB/031/2023-24 dtd. 03.04.2023

Sir,

With reference to the above, it is to inform that you have submitted an application at MoEF&CC, Govt. of India, New Delhi for grant of Environmental Clearance for "Modernization & Expansion of existing Iron & Steel Plant". Out of the 18 objections in the issued EDS for compliance, 16 objections have been complied by you. To submit balance two points of the EDS, the MoEF&CC requires clarification to be submitted by the Board regarding the CCR obtained from SPCB/IRO along with the ATR and closure report on non-complied conditions, if any in pursuance to Ministry's O.M. dated 08.06.2022.

Your industry was inspected by Regional Officer, SPC Board, Angul on 29.04.2023 and the copy of inspection report is enclosed for onward submission to MoEF&CC, Govt. of India.

Encl: As above

Yours faithfully,


 MEMBER SECRETARY


Inspection Report of
M/s. G.M. Iron and Steel Company Limited,
At/P: Kulei, Tahasil: Parajang, Dist:Dhenkanal

M/s. G. M. Iron and Steel Company Ltd., At/Po- Kulei, Parjang, Dist- Dhenkanal was inspected on 29.04.2023 by Er. C. S. Chauhan, DEE for verification of special conditions stipulated in CTO order issued by the Board vide letter No.5331, dt.31.03.2023 and compliance Status of BG conditions. Sri Tapan Kumar Dhar, Manager (HR/IR) and Sri Lakshman Kumar Pradhan, Factory Manager of the plant were present during inspection.

A. Consent Status

- Industry has obtained CTO from the SPC Board, Odisha vide letter No.5331, dt.31.03.2023 for following products, CTO is valid up to 31.03.2024;

Sl. No.	Product	Quantity
1.	Sponge Iron- DRI Kiln-I	1×100TPD
2.	Sponge Iron- DRI Kiln-II	1×350TPD
3.	Captive Power Plant	12MW(8 MW WHRB+4MW AFBC)
4.	Induction Furnace	2×10T/Heat
5.	Continuous Casting Machine to Produce Billets	75,000 TPA
6.	Rolling Mill	30,000 TPA

B. Compliance Status of special conditions stipulated in CTO order issued by the Board vide letter No.5331, dt.31.03.2023.

S. N.	Special Conditions	Compliance Status
	<u>AIR POLLUTION CONTROL</u>	
1.	All the air pollution control devices like ESPs / Bag filters installed at various process units shall be maintained, operated efficiently and continuously so that particulate matter emission from the stack shall meet the prescribed standard of the Board as indicated in 'Table-C'. The industry shall ensure continuous and effective operation of all the APC devices through preventive maintenance.	<p>The industry has installed an ESP of capacity 50,000 Nm³/hr capacity attached to the 100 TPD kiln with FD cooler, ESP found operational during inspection. A stack of about 30 meter height has been attached to it. The industry has installed a WHRB of capacity 10TPH (which can generate 2MW electricity) at the 100 TPD DRI Kiln. WHRB was not in operation.</p> <p>The industry has installed an ESP of capacity 90,000 Nm³/hr capacity attached to the 350 TPD kiln. A common stack (350TPD DRI Kiln and 4MW AFBC) of about 56 meter height has been attached to it. The industry</p>

		<p>has installed a WHRB of 38TPH (which can generate 6MW electricity) with the 350 TPD DRI Kiln for generation of steam for electricity generation. Industry has installed a common TG of capacity of 12MW to utilize generated from WHRB boilers of both DRI Kilns and AFBC. 350TPD DRI Kiln was in operation during inspection.</p> <p>Industry has installed one AFBC boiler of capacity 22TPH (which can generate 4MW electricity). Steam generated from the boiler is being used in the common TG of 12MW for power generation. On separate ESP of capacity 25,000 Nm³/hr has been installed for the cleaning flue gas generated from the boiler before emitting into atmosphere through common stack of DRI.</p> <p>The unit has installed common pulse jet bag filters (350 TPD & 100 TPD Rotary Kiln circuit) at i) Raw Material Circuit (common for both DRI Plant and AFBC Plant) for coal handling (35000 m³/hr), ii) Transfer circuit & Intermediate Bin (35000 m³/hr), iii) product House , product separation unit and Cooler Discharge (50000 m³/hr), iv) Bag filter at coal Injection point (15000 m³/hr.) at 350 TPD and 100 TPD rotary kiln circuit.</p> <p>During visit all ESPs and bag filters (except bag filter installed at coal circuit of DRI) were found operational and no visible emission was observed from stack of any of the bag filter.</p>
2.	There shall be no leakage of flue gas through the emergency caps, slip rings or any other process areas of DRI kilns except during exigencies.	No leakage through emergency caps or slip rings of either DRI Units observed during inspection.
3.	Steps shall be taken for regular monitoring of Mercury (Hg) in the stack of AFBC boiler	Industry has engaged M/s. Visiontek Consultancy Services Pvt. Ltd., a NABL accredited laboratory to carry out

	and submit data to the Board.	stack and ambient air quality monitoring.
4.	The unit shall provide low NOx burners to reduce NOx emission to keep the level within the prescribed standard by MoEF & CC vide Notification dtd. 07.12.2015.	Industry has provided low NOx burners in the AFBC unit to reduce NOx emission.
5.	Steps shall be taken for installation of Flue Gas Desulphurisation (FGD) system in future if required to keep the SO ₂ level within 600mg/Nm ³ to conform the MoEF & CC Notification dtd. 07.12.2015. This shall also include management and disposal of effluent / solid waste to be generated from FGD system.	It was reported by the plant authority that they use dolochar with coal to produce electricity from AFBC unit. Lime content in dolochar reduces the SO ₂ emission. Excess dolochar is being sold to other power plant/users. Records of disposal of dolochar and other solid wastes submitted by the plant authority is enclosed as <u>Annexure-1</u> .
6.	Fume generated from the induction furnaces shall be collected through adequately designed swiveling hoods and treated in the wet scrubber, so as to meet the prescribed standard of Board indicated in Table -C. The industry shall ensure continuous and effective operation of such air pollution control system through preventive maintenance.	The unit has installed 2x10T/Heat Induction Furnaces having 04 Nos. of crucibles. The industry has provided swiveling hood to collect fume from each furnace and treated in wet scrubbers. Wet scrubber installed with 2x10T/Heat IFs was found operational during inspection
7.	All the online continuous stack emission monitoring systems (CEMS) for measurement of particulate matter and gaseous pollutants shall be operated effectively & uninterruptedly and real time monitoring data so generated shall be transmitted directly to RT-DAS server of the Board without passing through any local PC or server.	CEMS has been installed at the stack connected with 100TPD DRI Kiln and at the common stack connected with 350TPD DRI Kiln and 4MW AFBC Boiler. Both PM and gaseous analyzers were found operational during inspection.
8.	The industry shall ensure tamper proof real time transmission of online monitoring data to the server of CPCB and SPCB and maintain the health of the analyzers and data connectivity through valid AMC.	CEMS have been connected to the RT-DAS server of the Board. Calibration certificate of dust analyzers submitted by the industry is enclosed as <u>Annexure-2</u> . Industry may be asked to execute AMC with the technology providers.

9.	The Pneumatic Dust Handling system installed at the hoppers of all the ESPs and bag filters shall be operated continuously and effectively so that no fugitive dust nuisance is created.	<p>Pneumatic dust handling system (PDHS) installed at the ESPs hoppers of 100 TPD Kiln, 350TOD DRI Kiln and AFBC unit.</p> <p>PDHS system has not yet been installed at the bag filters of DRI units.</p> <p>It was reported by the plant authority that due to weak structure and limited space below hoppers they are expediting the work to install the PDHS at the earliest.</p>
10.	Telescopic chute shall be installed at the bottom of hoppers/silo wherever applicable to prevent emission of fugitive dust during material transfer/unloading.	Telescopic has not been provided at the bottom of hoppers/silo. However, rubber flaps have been provided at the bottom of hoppers/silo to control fugitive emission.
11.	Iron ore and coal used in the plant shall be stored under covered shed. Material storage area of the plant, approach roads shall be covered with adequate sprinkling facility. The water sprinkling system shall be kept operational all the time to avoid any fugitive dust nuisance. Dry fog system shall be installed at the Coal circuit of both DRI section and power plants, which will operate as standby measures.	<p>A shed of about 4500m² size has been provided inside plant premises for the storage and processing of raw materials. In addition to this shed, raw materials (iron ore and coal) is also being stored in open area.</p> <p>Industry has installed a fixed mist canon near the coal crusher and screen area for dust suppression during material handling.</p> <p>Fixed type water sprinklers were found to be installed and operated along internal roads in eastern and southern side.</p> <p>Dry fog system has not yet been installed at coal and iron ore circuit. However, water sprinkling arrangement has been provided at the coal circuit and bag filter installed at the coal circuit was being repaired.</p>
12.	Dust suppression facilities by provision of adequate water sprinkling shall be made at the active dumping area and roads to prevent dust nuisance in the area.	<p>Fixed type water sprinklers were found to be installed and operated along internal roads in eastern and southern side.</p> <p>Industry has engaged water tankers for dust suppression on approach road,</p>

		internal roads and active dumping areas.
13.	The performance evaluation of ESP, bag filter, air pollution control devices, online CEMS, AAQMS & surveillance cameras shall be conducted by a 3rd party expert agency and annual report shall be submitted to the Board by end of June for the previous financial year.	Industry may be asked to carry out study on adequacy and performance evaluation of ESP, bag filter, air pollution control devices and online CEMS.
14.	The digital display board installed at the main gate shall be of minimum size of 6ft x 4ft as stipulated by CPCB with provision of display of real time data online analysers (CEMS, CAAQMS & CEQMS), so that the public can visualize the actual emission and the values of parameters displayed at the gate. Outdoor LED video screens should be preferred for digital display of environmental parameters, CTO and authorization conditions and awareness clippings on environment at the main gate, colony area and process area.	New digital display board at the main gate has been installed which found operational during inspection.
15.	The installed HD IP camera shall be operated continuously so that video streaming shows in server of the Board on interruptedly.	Industry has installed IP Camera on the roof of control room of 350TPD DRI unit (Lat: 20°59'0.50"N, Long: 85°16'24.60"E).
16.	Online analysers for measuring flow, temperature and velocity of flue gas shall be installed at the stacks and integrated with online CEMS data.	Online analyzers for measuring flow, temperature and velocity of flue gas have not been installed at any of the stack.
17.	The industry shall comply with all the stipulations contained in the Gazette Notification of Govt, of India vide No. 155, dtd. 31.03.2012 (copy enclosed). For emission standard, the details of 'Table-C' of this order is applicable.	Stack monitoring was conducted on 03.05.2023, analysis report is enclosed as <u>Annexure-3</u> .
18.	Accumulation of dust and other solid waste in the work zone and non-dumping areas inside the factory premises shall be avoided. The work zone shall be properly cleaned either manually or mechanically every day and the dust so collected shall be disposed off in the designated dump	Housekeeping of entire plant area was improved in compare to previous inspections. Most of the waste accumulated inside factory premises and work zone areas were observed to be cleared.

	site.	
19.	The approach roads and all the internal roads shall be fully concreted / blacktopped. All the roads shall be cleaned periodically to avoid accumulation of dust. Adequate sprinkling facility, preferably by fixed water sprinklers shall be provided alongside all the internal roads to prevent generation of fugitive dust during vehicular movement.	About 90% of the internal roads have been concreted. Concreting of remaining 10% of internal road of length 250m (Approx.) along SMS shed is to be done. Fixed type water sprinklers were found to be installed and operated along internal roads in eastern and southern side.
20.	D.G. sets should be acoustically enclosed with anti-vibration measures and equipped with A.M.F. (Auto Mains Failure Device) for auto changeover of power supply from grid to D.G. in the event of power failure. The AMF Panel should preferably be PLC (Programmable Logic Control) based. Dedicated D.G. sets of adequate capacity shall be installed to ensure adequate standby power supply to run all pollution control devices of the plant in the event of power failure.	The unit has installed 5x1000KVA DG Sets inside plant premises at AFBC, DRIs and SMS. Separate rooms have provided for the DG sets.
21.	The industry shall put up sign Boards at appropriate places with nomenclature of the stacks in consultation with Regional Officer of the Board. It shall install electronic display Board in front of main gate to display the monitoring data, prescribed standard for public information.	During inspection it was observed that the unit has provided sign Boards at appropriate place with nomenclature of the major stacks. The unit has provided digital display Board in front of the factory premises.
22.	The ambient air quality shall confirm to the National Ambient Air Quality standard as per the notification of MoEF dated 16 Nov 2009 (Annexed).	Ambient air quality monitoring was conducted on 03.05.2023, analysis report is enclosed as <u>Annexure-3</u> .
	<u>WATER POLLUTION CONTROL</u>	
1.	Specific water consumption shall be limited within 3.5m ³ /MWh as per MoEF & CC vide Notification dtd. 07.12.2015.	It was verified from the log book that Specific water consumption in AFBC unit is within 3.5m ³ /MWh.
2.	Under no circumstances there shall be discharge of any effluent to outside the factory premises. Water used for cooling purposes shall be fully recycled. Water	No wastewater was being discharge to outside the plant premises during inspection.

	used in various processes shall be suitably treated and recycled in those processes.	
3.	Waste water generated from raw water treatment system and back wash of filtration plant shall be properly treated and taken to guard pond and reused.	Industry has provided one earthen water reservoir-cum-guard pond where wastewater generated from raw water treatment plant and from other areas is being discharged. Settled water from guard pond is again being reused in the process after treatment. Industry has also provided an earthen rainwater harvesting pond inside plant premises for the collection and reuse of surface runoff. Overflow of this pond goes to guard pond.
4.	DM plant regeneration effluent shall be neutralized in neutralization pit and reused for dust suppression.	Industry has installed a DM plant of capacity 10m ³ /hr. Wastewater generated from DM is being treated in neutralization tank after which it is being discharged to guard pond.
5.	Blow down from AFBC / WHRB boilers and all the cooling towers shall meet the following standards before it is discharged to the common monitoring basin and shall be used for dust suppression; a) For Boiler blow down: SS-100mg/l, O & G-20mg/l, Cu (Total)-1.0mg/l, Fe (Total)-1.0mg/l. b) For cooling tower blow down: Free available chlorine-0.5mg/l, Zn-1.0 mg/l, Cr (Total)- 2.0mg/l, Phosphate-2.0mg/l.	Blow down from AFBC / WHRB boilers and all the cooling towers is being discharged to guard pond and settled water from guard pond is again being reused in the process after treatment.
6.	The hot billets from continuous casting machine shall be feed to rolling mill to produce rolled products without reheating furnace.	The hot billets from continuous casting machine is being directly fed to rolling mill to produce rolled products. Existing PGP and Re-heating furnace were found defunct during inspection.
7.	Cooling waters from CCM and Rolling Mill shall be completely recycled in a closed circuit.	Industry has provided series of settling tank and pits for collection, cooling and reuse of cooling water generated from CCM and Rolling Mill shall.
8.	Mill scale generated from continuous casting machine shall be stored in a	Mill scale generated from CCM is being collected and stored in a designated

	designated area and shall be reused in the process.	area in SMS area from where it is re-used in IFs.
9.	Dumping of solid waste shall be made at designated locations in a systematic manner with proper engineering applications by providing proper slope, angle, berms, height, toe wall, retaining wall and road network. The active dumping area shall be kept at minimum. The exhausted dump area shall be technically reclaimed by spreading a layer of soil with proper compaction and consolidation. Biological reclamation of the same shall be made by planting saplings of appropriate species. Adequate provision for watering of plants and protection of trees shall be made.	Industry has provided 10 Acres land in the NW corner of the plant for dumping of solid waste generated from the plan area. About 5.0 acres of demarcated land is being used for the dumping of solid waste. It was observed that industry has provided earth cover over top of the solid waste dump site, no earth cover was observed along slope of the dump. However, industry had provided green synthetic sheets along slope of the dump.
10.	Fly ash generated from the power plant shall be fully utilized in various areas like brick making, tile making, road construction etc. in accordance with the Fly Ash Notification, 31 st December, 2021 and amendment thereof.	Fly ash generated from the power plant is being disposed with fly ash bricks manufacturing units and used for road construction. The industry has maintained the record for fly ash/dust generation and disposal. Copy of records provided by industry is attached as <u>Annexure-4</u> .
11.	The performance evaluation of ETP, STP, online CEQMS & Web cameras, flow meter shall conducted by reputed institute like NIT / IIT and annual report shall be submitted to the Board by end of June for previous financial year.	Industry has not installed any ETP or STP.
12.	Flow meter and level sensors with telemetry system should be installed in the bore wells as stipulated by Central Ground Water Authority/ Water Resources Department.	Industry has provided flow meter at the surface water intake point at Gambharia Nallah. Copy of notice for fee for withdrawal of water (based on water meter reading) for the month of January-2023 issued by the Executive Engineer, Rengali Right Canal is enclosed as <u>Annexure-5</u> . It was reported by the plant authority that at present they are not using groundwater for any purpose. Industry has two existing bore wells.


13.	The industry shall conduct surface run off management study and develop rain water harvesting structures and surface runoff treatment systems inside the premises.	Industry has not conducted surface run off management study.
14.	The industry shall explore to adopt chemical free automated self -maintained electrolysis system for removal of scale, corrosion, bio-film from cooling towers and automated tube cleaning system for heat exchangers and condensers with remote access and alarm system wherever applicable for conservation of water and energy to reduce wastewater generation and increase plant efficiency.	Industry has provided one earthen water reservoir-cum-guard pond where wastewater generated from raw water treatment plant and from other areas is being discharged. Settled water from guard pond is again being reused in the process after treatment.
15.	The industry shall operate surface runoff treatment system of 50m ³ /hr to meet the discharge norms and shall be completely recycled during dry season/ partly discharged specially during monsoon if unavoidable.	Industry has also provided an earthen rainwater harvesting pond inside plant premises for the collection and reuse of surface runoff. Overflow of this pond goes to guard pond. No SRTS has been installed by the industry.
16.	The industry shall have adequate space at point of time for waste disposal at least for a period of next two years. Before using any new patch of land / site for solid waste dumping, the industry shall obtain prior consent to establish of the Board.	Industry has provided 10Acres land in the NW corner of the plant for dumping of solid waste generated from the plan area. About 5.0 acres of demarcated land is being used for the dumping of solid waste. Fly ash generated from the power plant is being disposed with fly ash bricks manufacturing units and used for road construction. Industry has submitted online application for filling of low lying area over 5.21Ac. in Kulei village.
<u>ADDITIONAL CONDITIONS</u>		
a)	The unit shall rectify HD IP Camera to show uninterrupted video streaming to the server of the Board within 15 days.	It was reported by the plant authority that HD IP Camera has been rectified to show uninterrupted video streaming to the server of the Board.
b)	The unit shall complete the remaining 250 mtr internal road along the SMS shed within 02 months.	It was reported by the plant authority that concreting of remaining 10% of internal road of length 250m (Approx.) along SMS shed will be completed

		within three months.
c)	Soil cover shall be made over the existing solid waste dump area with plantation and toe wall within 02 months.	It was observed that industry has provided earth cover over top of the solid waste dump site, no earth cover was observed along slope of the dump. However, industry had provided green synthetic sheets along slope of the dump. Plantation and earth cover over slope of the dump with tow wall will be completed before monsoon, as reported by the plant authority.
d)	The unit shall install PDHS / Screw Conveyor System at bag filter hoppers of DRI unit for mechanized handling of dust within 02 months.	PDHS system has not yet been installed at the bag filters of DRI units. It was reported by the plant authority that due to weak structure and limited space below hoppers they are expediting the work to install the PDHS at the earliest.
e)	The unit shall provide bag filter at the stock house to control fugitive emission within 03 months.	Industry has proposed to install bag filter at the stock house to control fugitive emission within 03 months.
f)	The unit shall install STP for treatment of domestic effluent generated from the plant area as well as labour colony within 06 months.	Industry has placed work order in favor of M/s.Visiontek Consultancy Pvt. Ltd. for installation of STP. Copy of work order enclosed as <u>Annexure-6</u> .
g)	The unit shall provide dry fog system at feed hopper of coal circuit and iron ore circuit within 02 month.	Industry has proposed to provide dry fog system at feed hopper of coal circuit and iron ore circuit within 02 month.
h)	The unit shall maintain the approach road from NH to Plant gate with water sprinkling facilities to control fugitive emission during plying of vehicle.	Approach road was observed to be maintained and water sprinkling through water tanker was being done.
i)	The unit shall not operate 1x4 T/Heat Induction Furnace and Rolling Mill-500 TPD till obtaining prior CTO from the Board.	During inspection 1x4 T/Heat Induction Furnace and Rolling Mill-500 TPD were not in operation.
j)	The unit shall abide by the fuel policy of Govt. of Odisha.	It was reported by the plant authority that they are using LDO during start-up of AFBC boiler and kilns.

C. Compliance Status of BG conditions mentioned in the direction issued to the industry vide Board's letter no. 1338, dt.28.01.2022:

Sl. No.	BG Conditions	Present Status
a)	Concreting of work zone area	During visit it was observed that as on date the industry has completed concreting work at the bottom ABC of 350TPD DRI Kiln area. Concreting of other work zone areas (majorly around bag filters) are still to be completed.
b)	Up-gradation of digital display board	New digital display board at the main gate has been installed which found operational during inspection. It was reported by the plant authority that they have replaced the display board in May 2022.
c)	Installation of IP camera	Industry has installed IP Camera on the roof of control room of 350TPD DRI unit (Lat: 20°59'0.50"N, Long: 85°16'24.60"E). It was reported by the plant authority that they have installed the IP camera in February 2022.
d)	Mechanical wheel washing system	Industry has installed mechanical wheel washing system with water treatment and reuse system near the main gate, it was found operational during inspection. It was reported by the plant authority that they have installed mechanical wheel washing system in May 2022.
e)	PDHS at hoppers of bag filters of DRI Kilns	PDHS system has not yet been installed at the bag filters of DRI units. It was reported by the plant authority that due to weak structure and limited space below hoppers they are expediting the work to install the PDHS at the earliest.
f)	Dry Fog Systems (DFS) at coal circuit.	During visit it was observed that DFS at the coal circuit has not been installed. However, water sprinkling arrangement has been provided at the coal circuit and bag filter installed at the coal circuit was being repaired. Industry has installed a fixed mist canon near the coal crusher and screen area for dust suppression during material handling.
g)	Concreting of remaining internal road.	About 90% of the internal roads have been concreted. Concreting of remaining 10% of internal road of length 250m (Approx.) along SMS shed is to be done. It was reported by the plant authority that concreting of remaining portion of internal road will be completed within three months.

h)	Metaling of approach road to dump site and retaining wall along the nallah.	Metaling of approach road to dump site has not yet been completed. It was observed that industry has stopped dumping waste at the old site. Industry has repaired the boundary wall along the nallah side.
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Er. C. S. Chauhan
Dy. Env. Engineer

GM IRON & STEEL CO.LTD.
MONTHLY SUMMARY (CHARCOAL)

SL. NO.	MONTH	NAME OF WASTE MATERIALS	OPENING (MT)	PRODUCTION (MT)	CONSUMPTION (MT)	SALES (MT)	CLOSING (MT)	REMARK
			18,069.70					
1	APRIL - 2022	SOLID WASTE (CHARCOAL)	18,069.70	2090.14	NIL	4546.21	15,613	
2	MAY - 2022	SOLID WASTE (CHARCOAL)	15,613	3519.58	NIL	7431.33	11,701.88	
3	JUNE - 2022	SOLID WASTE (CHARCOAL)	11,701.88	11,373.11	NIL	11,373.11	11,701.88	
4	JULY - 2022	SOLID WASTE (CHARCOAL)	11,701.88	3281.79	NIL	12,169.05	2814.62	
5	AUGUST - 2022	SOLID WASTE (CHARCOAL)	2814.62	1359.613	NIL	1830.73	2343.503	
6	SEPTEMBER - 2022	SOLID WASTE (CHARCOAL)	2343.503	2311.471	NIL	2144.28	2510.694	
7	OCTOBER - 2022	SOLID WASTE (CHARCOAL)	2510.694	4170.553	NIL	945.86	5735.387	
8	NOVEMBER - 2022	SOLID WASTE (CHARCOAL)	5735.387	1092.60	NIL	1507.69	5320.299	
9	DECEMBER - 2022	SOLID WASTE (CHARCOAL)	5320.299	286.35	326.5	1729.13	3051.11	
10	JANUARY - 2023	SOLID WASTE (CHARCOAL)	3051.11	1852.00	2245.4	1579.05	1578.569	
11	FEBRUARY - 2023	SOLID WASTE (CHARCOAL)	1578.569	1484.00	1985.66	236.93	839.979	
12	MARCH - 2023	SOLID WASTE (CHARCOAL)	839.979					





CALIBRATION CERTIFICATE

Certificate no- CODEL/DCEM/2023-820
Customer- GM IRON &STEEL COMPANY LTD
AT-KULEI ,PARJANG DHENKAL ,ODISHA-759146.

Date of Issue- 15-02-2023

Instrument Details

Instrument- Dust Analyser
Model- DCEM 21XX

Location- Stack # 100-TPD KILN
Date of Calibration- 15-02-2023
Frequency- 2months
Due Date-15-04-2023

Calibration Details

Opacity % of Check filter	Reading of the analyser with Check filter	% error
4.7 %	4.6 %	0.1 %

Result: The calibration of above instrument is performed and it meets the acceptance criteria.

Calibrated by:

Vikash Partap Pal (Forbes Marshall)

Reviewed by

Vikash Partap Pal (Forbes Marshall)

CALIBRATION CERTIFICATE

Certificate no- CODEL/DCEM/2023-820
Customer- GM IRON & STEEL COMPANY LTD
AT-KULEI ,PARJANG DHENKAL ,ODISHA-759146.

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Frequency- 2months
Due Date-15-04-2023

Calibration Details

Opacity % of Check filter	Reading of the analyser with Check filter	% error
4.5 %	4.6 %	0.1 %

Result: The calibration of above instrument is performed and it meets the acceptance criteria.

Calibrated by:

Vikash Partap Pal (Forbes Marshall)



Vikash Partap Pal (Forbes Marshall)

REGIONAL OFFICE OF STATE POLLUTION CONTROL BOARD, ODISHA
S-3/3, INDUSTRIAL ESTATE, HAKIMPADA, ANGUL-759143



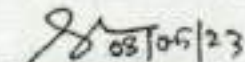
TEST REPORT

Report No.484/Air/Amb./05/2023

Date: 08.05.2023

1. Name & Address of the Industry/ Source : M/s. GM Iron & Steel Company Ltd., Kulei, Parjang, Dhenkanal.
2. Date of Sample receipt : 03.05.2023
3. Date of sampling : 03.05.2023
4. Sample collected by : Sri S R Kuanr, AES, Sri S K Bhol, ASO & Sri B N Jena, FA.

Date of sampling		03.05.2023
Weather Condition		Clear
Sl. No.	Location of the station	Concentration in $\mu\text{gm}/\text{m}^3$
		Respirable Suspended Particulate Matter (PM ₁₀)
1	AAQ Near Administrative Building (Central Store)	86
2	AAQ at Back side of the Plant near Thapa Colony	78
Standard		100


Analysed by: 03/05/23


08.05.23
Board Analyst
Board Analyst
State Pollution Control Board, Odisha

REGIONAL OFFICE OF STATE POLLUTION CONTROL BOARD, ODISHA
S-3/3, INDUSTRIAL ESTATE, HAKIMPADA, ANGUL-759143



TEST REPORT

Report No.485/Air/ST/05/2023

Date: 08.05.2023

1. Name & Address of the Industry/ Source : M/s. GM Iron & Steel Company Ltd., Kulei, Parjang, Dhenkanal.
2. Date of Sample receipt : 03.05.2023
3. Date of sampling : 03.05.2023
4. Sample collected by : Sri S R Kuanr, AES, Sri S K Bhol, ASO & Sri B N Jena, FA

Date of sampling		03.05.2023			
Sl. No.	Location of Sampling Point	Flue gas Temp. (°C)	Flue gas Velocity (mtr./Sec.)	Particulate Matter Conc. (mg/Nm ³)	Standard (mg/Nm ³)
1	stack attached to WHRB of DRI Kiln 350 TPD after ESP	154	12.24	44	50
2	stack attached to WHRB of DRI Kiln 100 TPD after ESP	148	10.32	72	100

[Signature]
08/05/23
Analysed by:

[Signature]
08-05-23
Board Analyst
Board Analyst
State Pollution Control Board, Odisha

GM IRON & STEEL CO.LTD.
MONTHLY SUMMARY (ASH)

SL. NO.	MONTH	NAME OF WASTE MATERIALS	PRODUCTION (IN MT)	SUPPLY (IN MT)	CLOSING	REMARKS
1	NOVEMBER - 2022	SOLID WASTE (ASH)	3040.00	3039.5	0.5	
2	DECEMBER - 2022	SOLID WASTE (ASH)	7969.00	7969.2	0.3	
3	JANUARY - 2023	SOLID WASTE (ASH)	8024.00	8023.8	0.5	
4	FEBRUARY - 2023	SOLID WASTE (ASH)	7229.00	7229.5	0	
5	MARCH - 2023	SOLID WASTE (ASH)	2063.00	2062.6	0.4	

[Handwritten Signature]
Kulai Panjang
Cherkana
GM IRON & STEEL CO. LTD.



BHARAT BRICK COMPANY

Registered Office :

Ward No - 09, Main Road,
H N Hardware Bazar,
PO & PS - Rairangpur,
Mayurbhanj, Odisha - 757043
Phone 9934197097

Works :

Plot No - 35 Plot No - 207
Khata No - 149/09
Manicha, Bisor,
Mayurbhanj, Odisha - 757033

To
The Director
GM Iron and Steel Co Limited
Kulei, Parjang, Dhenkanal

Sub - Request for procurement of fly ash

Dear Sir,

Please refer to the above captioned subject.

Our organisation Bharat Brick Company has been into manufacturing of fly ash bricks, blocks and poles.

In the view of above mentioned business we are willing to take fly ash from your firm respectively.

It will be very kind of you to provide us with the same.

Yours faithfully
Bharat Brick Company



iron triangle

The Infrastructure Company



MONTECARLO
Born to Achieve

Ref.: MCL(C)/RD/3210/CLT/2020-2021/820

Date: 12/03/2022

To,
The General Manager,
Iron & Steel Co. Limited,
Kulei, Parjang, Dhenkanal

Sub -Rehabilitation and Up-gradation of existing 2-lane to 4-lane standards from Talcher to end of Kamakhyanagar Bypass section Chainage from km. 8+500 to km. 14+800 of NH 23 (New NH 149) and Chainage from km. 301+474 to km. 336+900) of NH 200 (New NH 53) in the State of Odisha under NHDP Phase- III on EPC Mode – Reg. Request to Start supply of Flyash from your Plant site to our Project Site

Ref. – 1) Agreement on dated 27.12.2018

2) MoRTH Circular no.RW/NH-33044/01/2019-S&R(P&B), dated 23.10.2020

Dear Sir,

Please refer to the above captioned subject.

Our Organization M/s Montecarlo Ltd. has been awarded to construct and develop the above subject Project from NHAJ. M/s Kunal Structure India Pvt. Ltd. has been engaged as our approved Sub-contractor to construct the Project stretch.

The Highway work is being constructed with Fly ash/Pond Ash as embankment fills material as per the guidelines of MoRTH. We came to know that a huge quantity of Fly ash/Pond ash is there within the premises of your company M/s Iron & Steel Co. Limited and the same material could be utilized in the Road construction after conducting due Laboratory Tests.

In view of the above, may we request you to start supply of Fly ash/Pond ash from your Plant Site to our Road Site so that the Highway work will be run smoothly.

This is for your kind information and necessary action please.

Yours faithfully,
For Montecarlo-ITL Ltd. (JV)

Authorized Signatory

Encl: - The Above Circular attached

MCL - ITL (JV)

Montecarlo House



NAV INFRA

AT/P.O. - BAHALDA, MAYURBHANJ, ODISHA, PIN - 757046

CONTACT No. - 9040931800, Email id : navinfra2016@gmail.com

Ref. No. _____

Date: - 11/11/2022

The Director GM Iron & Steel Co. Limited
Kulei, Parjang, Dhenkanal

Sub: Request For Procurement Of Fly Ash

Dear Sir,

Please refer to the above captioned subject.

Our Organisation NAV INFRA Company has been into manufacturing of Fly Ash Brick's, Block's and Poles.

In the view of above mentioned business we are willing to take Fly ash from your firm actively.

It will be very kind of you to provide us with the same.

Thanking you

Yours Sincerely

NAV INFRA

Date:- 11/11/2022





GM Iron & Steel Company Ltd.

Adm. Office : Rairangpur, Mayurbhanj, Odisha - 757043

Tel. : +91-6794-222834, Fax : +91-6794-222698

Email : gmsteelbbsr@gmail.com

CIN : U27310WB2007PLC113658

Ref No.:- FAS/NI/GMISCL/002/2022-23

Date:-14/11/2022

To

The M/S. NAVA INFRA

Bahalda,Mayurbhanj,Odisha

Sub:-Reg. Acceptance of request for supply of fly ash for procurement purpose.

Ref: - Request letter on dated-11/11/2022

Dear Sir,

Please refer to the above captioned subject.

In view of your request and need of fly ash for procurement purpose. Our Organization M/S.GM Iron & Steel Company Limited accepts your request and is ready to supply you fly ash for manufacturing fly ash bricks, blocks and poles purpose only.

We shall transport the fly ash to our own vehicles with required precautions.

Yours Faithfully,
GM Iron & Steel Company Ltd.


14/11/2022
Authorized Signatory

For GM Iron & Steel Company Limited.

OFFICE OF THE EXECUTIVE ENGINEER

Rengali Right Canal Division No-II, Dhenkanal, PIN:- 759146

Plot No./E-mail Id:

Date: 22/02/2023

To: Lr No: 418

GM IRON AND STEEL COMPANY LIMITED, AT-KULEI,PO-PARJANG,DIST-DHENKANAL Notice is here by given that you have been drawing/allocated water from the Government Water Source(Surface Water) as shown in the format during the month of January 2023. As per flow meter reading you have consumed - cubic metre of water of your Industrial/Commercial establishment against the applied quantity for the month of January 2023, which is 42472.55 cubic metre. As per sub-rule(2)(1) of rule 23-A read with rule 23 and 25, the quantity of water for this month is 42472.55 cubic metre and you have been assessed with an amount as shown in the format.

You are hereby directed to deposit the fees so assessed in the office of the Executive Engineer,Rengali Right Canal Division No-II, Dhenkanal noted below on or before Date, 26/2/2023 failing which action as deemed proper under the provisions of the act and rules shall be taken against you.

Name Of The Govt. Water Source/Irrigation Work	Commitment Charge	Quantity Of Water For The Month(In CUM)	Unit Rate Of License Fee/Special Water Rate(PerAcre/Cum)	Total Amount Assessed (Current Pre-cessed or The Month (Col.5 + Col.3+col.4+Col.2)	Current Penalty	Cumulative Demand For The Previous Month(Col.7 + Col.13 Of Previous Month)	Collection During The Month (Against Col.7)				Current Interest 2% Per Month (Col.12 + Col.17 + Col.11)/(2/100)	Cumulative Demand For The Month (Col.13 + Col.5 + Col.6+Col.7 + Col.12 + Col.11)
							Principal	Penalty	Interest	Total (Col.11 + Col.8+Col.9 + Col.10)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Ganchha Meta	Rs. 0	42472.55 cum	544/cum	Rs. 231051	Rs. 0	Rs. 459120	Rs. 219125	Rs. 0	Rs. 4472	Rs. 223597	Rs. 4750	Rs. 471284

Memo No 419(4) Date 22/02/2023

Copy Submitted to the Chief Engineer, Water Services, O/O the E.I.C., Water Resources Department, Odisha, 11/02/23
 C.S. RAIP, A.C.E. RAIP of Rengali Right Canal Division No-II, Dhenkanal

Rengali Right Canal Division No-II, Dhenkanal

Executive Engineer
 Rengali Right Canal Division No-II, Dhenkanal

Automatically Generated Demand, Signature Not Required. 21/02/23

Item No. 03

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

**Original Application No.45/2022/EZ
(I.A. No.218/2022/EZ)**

Santanu Kumar Bhukta & Anr.

Applicant(s)

Versus

GM Iron & Steel Company Ltd. & Ors.

Respondent(s)

Date of hearing: 26.05.2023

Matter stands adjourned to: 26.07.2023

CARBON FOOTPRINT & CARBON SEQUESTRATION

Details of Carbon Footprint & Carbon sequestration for the proposed expansion of M/s. GM Iron & Steel Company Limited is given below:

Carbon Footprint			Carbon Sequestration		
Sl. No.	Activities	CO ₂ generation (TPA)	Sl. No.	Activities	Reduction of CO ₂ Emission (TPA)
1	Pellet Plant	17,600	1	CO ₂ emission reduction due to WHRB based 18 MW CPP	1,88,179
2	DRI Plant	7,11,040	2	CO ₂ emission reduction due to use of scrap	88,200
3	40 MW CPP (AFBC based)	4,25,883	3	CO ₂ emission reduction due to use of LED light (energy conservation)	2,587
			4	CO ₂ emission reduction due to Green Belt Development	4,308
	TOTAL	11,54,523		TOTAL	2,83,274

Details of calculations given in Annexure

Mitigation measures to reduce Carbon Footprints

With the growing concern over climate change, steel makers are faced with the challenge of finding ways of lowering CO₂ emissions without seriously undermining process efficiency or considerably adding to costs. The iron and steel industry is the largest industrial source of CO₂ emissions due to the energy intensity of steel production, its reliance on carbon-based fuels and reductants.

The technological compendium of industries suggests the need to shift from traditional carbon intensive technologies for iron and steel production to low-carbon environment friendly technologies. Following are the measures which shall be adopted in coming years by the industries to reduce the overall carbon footprints.

- Energy Monitoring & Management System
- Secondary Fume Extraction System in Steel Melting Shop
- Hot charging process of continuously cast products at higher temperature directly to Rolling Mills
- Adoption of Variable Voltage Variable Frequency (VVVF) Drives for high capacity electric motors
- Minimising energy consumption and improving the energy efficiency of the process
- Installing state of art cleaner technologies
- Afforestation and Plantation
- Metallurgical wastes (Slag, Sludge, scales, fines, dust) into Sintering contributes significantly for reducing carbon dioxide emissions
- The continuation and reinforcement of the promotion of sustainable means of transport for commuters, such as bicycles, public transport and, most of all, car-pooling would contribute to reducing carbon emissions

Conclusion

M/s. G.M.Iron & Steel Company Limited, is committed for reducing the overall Green House Gases and Ambient pollution levels through its cleaner technologies and Ecological development activities. The company is reluctant on reducing the carbon emissions further through carbon storage techniques (as and when available in Indian scenario), usage of renewable energy resources, Use of Natural gases and Electric Vehicles and Development of Greenbelt.

To conclude, no single option can yield the necessary CO₂ emission reductions but a combination of technologies is available that can be retrofitted to achieve significant reductions, which is possible after commercial deployment of the same by the Government of India. If Carbon capture and storage (CCS) plant is implemented then steel plants could become near zero emitters of CO₂. The commercial viability of CCS partly depends on the price of carbon emissions which is set by government policy.

However, the Company shall reduce Carbon Footprint to a drastic level through adopting best available measures / technologies and accordingly the company plans to prepare an action plan / road map, so that the gap between Carbon footprint and Carbon sequestration w.r.t. to the proposed project expansion will be as minimum as possible by 2030.

Annexure

CARBON FOOTPRINT CALCULATION

UNIT NAME	COAL	QUANTITY IN TPA	FIXED CARBON%	TOTAL CARBON IN TPA	CO ₂ GENERATION IN TPA
Pellet Plant	Coal	12,000	40	4,800	11,54,523
Sponge IronPlant (1x130 TPD + 1x450 TPD + 1x550 TPD)	Coal	4,84,800	40	1,93,920	
40 MW CPP (AFBC Based)	Dolochar	84,750	20	16,950	
	Coal	2,48,000	40	99,200	

CARBON SEQUESTRATION

18 MW CPP (WHRB BASED)

This 18 MW WHRB Based CPP will reduce the CO₂ emission equivalent to that emitted from 18 MW Coal based CPP.

1,28,304 TPA Coal is required to generate 18 MW Power, Coal requirement will be $18 \times 0.9 = 16.2$ TPH.

Assuming 40% fixed carbon in Coal, total Carbon content will be $16.2 \times 0.4 = 6.48$ TPH

The Corresponding CO₂ generation will be $(6.48 \times 44) / 12 = 23.76$ TPH

Hence, CO₂ generation in a year will be $= 23.76 \times 24 \times 330 = 1,88,179.2$ TPA

Therefore, the installation of 18 MW WHRB based CPP will ultimately result in the reduction of CO₂ emission by 1,88,179.2 TPA.

USE OF STEEL SCRAP

The quantity of scrap to be used in induction furnace for manufacturing of 2,77,200 TPA crude steel 58,800 TPA.

CO₂ emission to be reduced due to use of scrap will be 88,200 TPA (@1.5 T /ton of scrap)

INSTALLATION OF LED LIGHT IN PLANT

The total capacity of LED light in the plant will be 0.5 MW. LED saves 40 - 60 % energy.

The corresponding energy consumption in case of incandescent light will be 0.83 MW considering 40 % more energy than led. Hence, there will be saving of 0.33 MW (=0.83-0.5) with the use of LED light.

This will save coal burning to the extent of 0.297 TPH (=0.33x0.9).

Total carbon reduction will be $0.297 \times 0.3 = 0.0891$ TPH

Total CO₂ reduction will be $0.0891 \text{ TPH} \times (44/12) \times 24 \times 330 = 2587.5$ TPA

GREEN BELT

Total greenbelt area = 17.24 hectares

Total number of trees = 43,100 trees

A hard wood tree absorb 100 kg CO₂ per annum.

There, 43,100 Trees will absorb $43,100 \times (100/1000) = 4308$ TPA CO₂

Total CO₂ reduction due to the overall project

= (1,88,179.2 TPA + 88,200 TPA + 2587.5 TPA + 4308 TPA) = 2,83,274 TPA



STATE FOREST HEADQUARTERS, ODISHA
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HoFF
PLOT NO. GD-2/12, ARANYA BHAWAN, CHANDRASEKHARPUR
BHUBANESWAR-751023

No. 10396 9F (Ind) 379/2022
Dated Bhubaneswar the 30th May, 2023

To

The Additional Chief Secretary to Government
Forest, Environment & Climate Change Department
Government of Odisha, Kharavel Bhawan, Bhubaneswar

Sub: Proposal for diversion of 11.853 ha forest land for establishment of industries i.e. expansion and modernization of existing integrated Steel Plant at village Kulei under Parajanga Tahasil, District-Dhenkanal under Dhenkanal Forest Division by M/s GM Iron and Steel Company Ltd (Proposal No.FP/OR/IND/145106/2021, State SI No.OR-049/2022 dated 21.06.2022)

Sir,

A proposal for diversion of 11.853 ha forest land for establishment of industries i.e. expansion and modernization of existing integrated Steel Plant at village Kulei under Parajanga Tahasil, District-Dhenkanal under Dhenkanal Forest Division by M/s GM Iron and Steel Company Ltd duly processed and recommended by the Divisional Forest Officer, Dhenkanal Forest Division and Regional Chief Conservator of Forests, Angul Circle is sent herewith in duplicate for consideration of Government of Odisha, Forest and Environment & Climate Change Department and onward transmission to Government of India, Ministry of Environment, Forest and Climate change under Section-2 (ii) of Forest (Conservation) Act, 1980.

1. Brief Description:

GM Iron and Steel Company Ltd (GMISL) incorporated on 23rd February 2007 and the GM Iron and Steel Company has purchased the old and sick plant of M/s Rana Steel and Power Ltd located at Kulei village from Bank through SARFAESI Act in 2019. In this connection the copies of sale deed are enclosed at Page No.127-170/DP. The plant have been made operative after obtaining necessary consent to establish and consent to operate from Odisha State Pollution Control Board, Odisha. The current consent to operate issued by Odisha State Pollution Control Board, Odisha vide letter No.5150 dated 26.03.2021 which is valid upto 31.03.2023 (copy enclosed at Page No.229-242/DP). The present plant area being inadequate, the company has gone for expansion and modernization of the old unit and IPICOL has approved the modernization and the expansion of the project vide letter No.CGM/SLNA/GM Iron and Steel-239/20 dated 10.11.2020 which is enclosed at Page No.243-244/DP. The State Level Single Window Clearance Authority (SLSWCA) in its 94th meeting held on 02.09.2020, has considered

the proposal of GM, Iron and Steel Company Ltd for expansion of project by setting up 0.8 MTPA pellet plant, 0.2379 MTPA DRI plant, 0.159 MTPA billet, 0.24 MTPA wire rod mill, 0.416 MTPA slag cement and 46 MW power plant and approved in-principle subject to the fulfillment of the condition communicated vide no. SJ/SLSWCA-217 (2) 2265 dated 07.09.2020 (enclosed at Page No.262-265/DP). The company has applied for acquisition of 29.82 acres of the Govt. land adjacent to its plat at Parajanga District-Dhenkanal through IDCO for expansion of the above plant. Hence, IPICOL advised to the CGM(Land) IDCO to obtain all statutory clearance, approval etc vide his Letter No. CGM/SLNA/GM Iron & Steel-239/20 dated.04.11.2022 which is enclosed at Page No.266-267/DP.

Accordingly, IDCO, Bhubaneswar has applied forest diversion proposal over 11.853 ha forest land for approval under Section-2 (ii) of Odisha Forest (Conservation) Act, 1980.

The project site is situated in Village Kulei under Parajanga Tahasil, Dist-Dhenkanal and involves total area of 43.098 ha, which consists of 11.853 ha forest land and 31.245 ha Non-forest land. The proposed land is under process of lease and acquisition through IDCO, Odisha.

The location of the project shown in Gol Toposheet No.F45T5 of scale 1:50,000 and find place within the latitude 20° 59' 1.34" to 20° 59' 10.95" N and longitude 85° 16' 10.49" to 85° 16' 49.30" E.

As per the Part-II (Page No.20-21/DP) and Site Inspection (Page No.65-66/DP) of the DFO, Dhenkanal Division, there is no National Park, Wildlife Sanctuary, Tiger Reserve, Elephant Reserve or Biosphere Reserve in and around the proposed site of diversion. Further, no archaeological monuments are located inside/nearby the proposed area. The proposed site is located at a distance of 0.2 Km from the Kalapal Reserve Forest. No rare and endangered species of flora and fauna are noticed in the project area. The project will generate Permanent employment of 125 person days and temporary (contractual) employment of 717 person (Page No.17-18/DP). The total cost of the project is 607.52 Crores Page No.17/DP.

2. Justification:-

The alternate site has not been considered for the proposed project as it is an old existing project. The old plant has been bounded by Gambharia nalla in the North and North-West direction and by the Kulei village road in the South. In the eastern side, there is patch of revenue forest land touching Banarpal-Pallahada road and tenanted land. So for the proposed expansion revenue forest land has to be included in the project proposal. The selection of project site/location has been based on the following considerations:

1. The project is an old existing project established over Ac 52.430 by M/s RANA Steel Ltd at Kulei village in Dhenkanal district of Odisha which has been acquired by GM Iron and Steel Company Ltd through SARFAESI Act.

2. For modernization and expansion of the old project, there is availability adequate land adjacent to it. Total area required for the expansion project is Ac 106.50, (94 Ac. Approved by IPICOL & 12.5 ac private non forest land to be accrued) out of which Ac 52.43 already exist and already been acquired.

3. Sources of supply of raw materials and their delivered cost is low.

4. Existence of rail and road connection in the vicinity for transportation of incoming raw materials and outgoing saleable products.

The justification furnished by the Project proponent is enclosed at **Page No.41/DP**.

3. Maps:

The User Agency (IDCO) has furnished the maps duly authenticated by concerned authorities as mentioned below.

Sl No.	Description	Scale	Plate No.
1.	Location Plan showing the proposed area in Survey of India Topo Sheet No.F45T5	1:50,000	I
2.	Proposed land use plan in respect of applied forest area over 11.853 ha.		II
3.	ORSAC Vetted DGPS map with delineation of the applied forest land proposed to be diverted for pellet plant in village Kulei under Parajanga Tahasil, Dist.-Dhenkanal	1:3960	III
4.	CA land identified in village Jaka, under Parajanga Tahasil, Dist.-Dhenkanal shown in Toposheet No.F45N4	1:1,50,000	IV
5.	ORSAC Vetted DGPS map of Non-forest land identified for CA in village Jaka, under Parajanga Tahasil, Dist.-Dhenkanal.	1:3960	V

4. Forest Land:

The total land involved in the project is 43.098 ha out of which forest land 11.853 ha and non-forest land is 31.245 ha proposed to be diverted. The details of forest land along with purpose of utilization applied for diversion for 0.8 MTPA Iron Ore Pellet Plant at village Kulei in Parajanga Tahasil of Dhenkanal district is depicted as below.

Sl No.	Purpose of Utilization	Forest land required in ha	Status of land in ha.			Total in ha
			Rev. Forest	Sablk Forest	Non-forest Pvt.	
1.	Pellet plant and ancillary activities of 0.8 MTPA capacity	11.853	9.344	2.509	31.031	43.098

The authenticated land schedule of forest and non-forest land involved in the project have been submitted by the Tahasildar, Parajanga and countersigned by DFO, Dhenkanal is enclosed at **Page No.29/DP**. The Tahasildar, Parajanga has furnished the status of land schedule as on 25.10.1980 involved in the project duly countersigned by the DFO, Dhenkanal Division, is

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enclosed at Page No.32-38/DP. The items wise breakup of forest land proposed for diversion is furnished at Page No.30/DP.

The purpose wise breakup of forest land is furnished below:-

Sl. No.	Component	Forest Land (ha)	Non-Forest Land (ha)	Total in ha.
1	Expansion of Plant	8.031	20.934	28.965
2	Green Belt	3.822	10.311	14.133
	Total	11.853	31.245	43.098

The DGPS map of the forest land involved in the project & proposed for diversion, has duly been vetted by the ORSAC and countersigned by Divisional Forest Officer, Dhenkanal Forest Division, is enclosed as Plate No-III. The KML and shape file in CD form is also appended to the DP.

The User Agency (IDCO) has furnished an undertaking that the forest land applied for the diversion proposal is unavoidable & barest minimum for the project which has been countersigned by DFO Dhenkanal Forest Division, is enclosed at Page No.43/DP.

5. Flora & Fauna:

As per Part-II and Site inspection report of DFO, Dhenkanal Division (Page No.20-21 and 65-66/ DP), the said forest area is coming under Eco value Class-III having vegetation density of 0.3. As reported by the DFO, Dhenkanal Division in tree enumeration list, the vegetation in the applied area, is composed of Sal (*Shorea robusta*), Asan (*Terminalia tomentosa*), Kendu (*Diospyros melanoxylon*), Dhaura (*Anogeisus latifolia*), Bahada (*Terminalia bellerica*), Sunari (*Cassia fistula*), Kumbhi (*Careya arborea*), Moi (*Lannea corromendelica*) etc.

The DFO, Dhenkanal Division has reported that no major wildlife are noticed in the forest area proposed for diversion. Wildlife noticed are small Indian civet, Jackal, rabbit, common mongoose, palm squirrel, and different type of snakes etc. Besides wild elephants visit the Kalpal RF as well as other nearby area during the period of paddy crop.

6. Tree enumeration:

As reported by the DFO, Dhenkanal Forest Division in Site Inspection report (Page No.65-66 /DP) that 210 nos. of trees are enumerated over 11.853 ha of forest land proposed for diversion. Total 99 nos. of trees have been enumerated in the non-forest land. The abstract of tree enumeration list in species wise and diameter class wise both forest and on-forest lands are enclosed at Page No.51 & 59/DP respectively. The detail tree enumeration of both in forest and non-forest lands are enclosed at Page No.52-63/DP.

7. Compensatory Forestation:

The revenue forest land applied for diversion is 11.853 ha. Therefore, 23.706 ha (11.853 ha x 2 = 23.706 ha) of revenue forest land has been identified in village Jaka under Parajanga Tahasil for Compensatory Afforestation. As per letter of the District Revenue Office, Dhenkanal vide No.4008 dated 20.04.2022 the Tahasildar, Parajanga has identified gramya jungle in village Jaka of Khata No.105, Plot No.02 over 58.58 Acres. The Tahasildar Parajanga intimated the allotment of Gramya Jungle over 58.58 Acres to DFO, Dhenkanal Division vide his memo No.1530 dated.28.04.2022, is enclosed at **Page No.68-69/DP**. DFO Dhenkanal Forest Division has reported that 23.706 ha of Govt. revenue forest land is suitable for plantation and the land suitability certificate is enclosed at **Page No.273/DP**. The DFO, Dhenkanal proposed for CA by raising AR plantation @1000 seedling per ha over 23.706 ha in Open and Non-forest as per DSS certificate duly appended by DFO, Dhenkanal and countersigned by RCCF, Angul. The DSS analysis certificate is enclosed at **Page No.271/DP**. Compensatory afforestation scheme has been prepared on the basis of one time cost norm with provision for 10 years maintenance and the CA scheme has been approved by the PCCF (FD & NO, FC Act) with financial outlay of **Rs.1,44,73,500/-** which is enclosed at **Page No.286/DP**.

The User Agency has furnished an undertaking to bear the cost of CA as per prevailing wage rate at the time of plantation which is enclosed at **Page No.45 (A) /DP**. The DGPS map and KML file of the identified CA land has been enclosed in the DP. The DGPS map and the location of CA has been shown in Survey of India Toposheet No.F45N4 of scale -1:50,000 for compensatory afforestation duly countersigned by DFO, Dhenkanal Division, enclosed at **Plate No.IV and V/ DP**. The CA scheme is enclosed at **Page No.270-287/DP**.

8. Cost- Benefit Analysis:

As the proposed diversion land is less than 20 ha in plain, hence cost benefit analysis is not applicable for this project as per the guidelines issued by MoEF & CC, GoI vide F. No. 5-2/2017-FC dated 28.03.2019.

9. Environmental clearance:-

The UA has not obtained Environmental Clearance for the proposed 0.8 MTPA Iron Ore Pellet plant at village Kulei in Parajanga Tahasil in Dhenkanal district as the plant was established on 2004-05. The old plant has run upto 2015-16 without any modification. So there was no need for environmental clearance. However, the UA has furnished an undertaking duly countersigned by DFO, Dhenkanal Division to submit the same in due course which is enclosed at **Page No.288/DP**.

10. Certificate Under Forest Rights Act 2006:-

The User Agency has not furnished the certificate under FRA 2006 but furnished an undertaking duly countersigned by DFO, Dhenkanal Division in this regard to submit the certificate after receipt of the same from the competent authority before issue of Stage-II approval which is enclosed at Page No.49/DP. Further, the CGM (Env) IDCO vide his letter No.CGM/Env/270/21 dated 07.07.2022 requested the Collector and District Magistrate Dhenkanal for issue of certificate FRA,2006 which is enclosed at Page No.260/DP.

11. Resettlement & Rehabilitation Plan:-

As reported by DFO, Dhenkanal Division in his Site Inspection Report (Page No.65-66/DP), the project does not warrant displacement of any human habitation and therefore the resettlement and rehabilitation plan is not required.

12. Net Present Value:-

The User Agency has furnished an undertaking duly countersigned by DFO, Dhenkanal Division to pay the NPV of the forest land proposed to be diverted and to pay the additional amount of NPV if so, determined by the Hon'ble Supreme Court which is enclosed at Page No.47 & 258/DP.

13. DGPS Map:-

Ministry of Environment, Forest & Climate Change, Govt. of India in their Letter No F. No 11-9/98 dated 08.07.2011 have issued guidelines that all applications seeking prior approval of the Central Government under Forest (Conservation) Act 1980 for diversion of forest land for non-forestry purpose must be accompanied with Geo-reference boundary in shape file pertaining to forest land proposed for diversion. These documents / maps are required to ensure accurate delineation of the forest area to be diverted. The User Agency in compliance to this order has submitted the required DGPS map of the forest area duly authenticated by ORSAC and countersigned by DFO, Dhenkanal Forest Division for the proposed diversion of 11.853 ha of forest land which is enclosed as Plate No.II along with shape file and KML file.

14. Consent to operate from SPCB, Odisha:-

The User Agency has furnished the required consent order from SPCB, Odisha issued vide No.5150/IND-1-CON-4699 dated 04.06.2021 and the consent order is valid from the period from 01.04.2021 to 31.03.2023. The copy is enclosed at Page No.229-242/DP.

15. Site Specific Wildlife Conservation Plan :-

As per report of the DFO, Dhenkanal Division in part-II (Page No.20-21) that the User Agency shall submit the Site Specific Wildlife Conservation Plan as the wild elephants visit the nearby Kalpal RF as well as other areas.

16. Violation:-

The DFO, Dhenkanal Division has mentioned in site inspection report (65-66/DP) that violation has been committed by the UA over the forest land proposed for diversion. The violation is furnished below:-

Area in Ha.	Kissam	Violation
6.273	Jungle-II (Revenue Forest)	Over 3.237 ha. Forest land, the User Agency had constructed one Temple & compound wall. The Tahasildar Parajanga has dismantled the temple and compound wall and remove the encroachment as per direction of Hon'ble National Green Tribunal (EZ) Kolkata. Over 3.036 ha. Dense Sal Forest existing
0.312	Sabik Forest	The forest land has been broken and enclosed inside the Plant compound wall.
0.344	Sabik Forest	The forest land has been broken and enclosed inside the Plant compound wall.
0.101	Sabik Forest	The forest land has been broken and enclosed inside the Plant compound wall.
1.489	Sabik Forest	The forest land has been broken and enclosed inside the Plant compound wall.

On specific query made for this office, the DFO, Dhenkanal has submitted reply on violation which is as below:-

In case of violation, it is pointed out that one Santanu Kumar Bhukta & Anr has fed a case before the Hon'ble NGT (EZ) Bench, Kolkata vide OA No.45/2022 (EZ) Vs M/s GM Iron & Steel Co. Ltd. & Others As per direction of the Hon'ble NGT the Tahasildar Parjang has dismantled the temple and compound wall and removed the encroachment over an area of 3.237 ha. Forest Land as constructed by the User Agency. In case of other forest land, the same has been reflected in the Site Inspection Report and on violation the User Agency will be liable for penal conditions under FC, Act 1980 and as per existing rules there. Besides, the Tahasildar, Parjang has booked encroachment case vide EN Case No-11/2022-23 and recovered of Rs.1.10,484/- vide receipt No AAA-5376604 dt.26.05.2022.

17. Others:

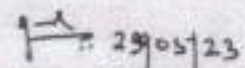
Part-II and Site Inspection Report of DFO, Dhenkanal Division are enclosed at Page No.20-21/DP & 65-66/DP respectively. The Part-III of RCCF, Angul has been enclosed at Page No.22/DP. The Division Profile of Dhenkanal Division has been furnished at Page No.289/DP. The District Profile of Dhenkanal is enclosed at Page No.290/DP. The State Profile is enclosed at Page No.291/DP.

18. Recommendation:

In view of the above, the proposal for diversion 11.853 ha of forest land for establishment of industries i.e. expansion and modernization of existing integrated Steel Plant at village Kulei under Parajanga Tahasil, District-Dhenkanal under Dhenkanal Forest Division by M/s GM Iron and Steel Company Ltd. is sent herewith in duplicate for consideration of Government and onward transmission to Government of India, Ministry of Environment & Climate Change for approval under Section-2 (ii) of Forest (Conservation) Act 1980.

Yours faithfully


Encl: **Diversion Proposal
in duplicate with
PDF file in CD Form**


Principal Chief Conservator of Forests & HoFF
Odisha

Memo No. 10397 Date. 30.05.2023
Copy forwarded to the Regional Chief Conservator of Forests, Angul Circle for information & necessary action.


Conservator of Forests (Nodal)

Memo No. 10398 Date. 30.05.2023
Copy forwarded to the Divisional Forest Officer, Dhenkanal Forest Division for information and necessary action.


Conservator of Forests (Nodal)



पश्चिमवङ्ग पश्चिम बंगाल WEST BENGAL

AK 022573

Date: 07th July, 2023

TO WHOM IT MAY CONCERN

I, **Kushal Choubey**, S/O Sunil Kumar Choubey, currently residing at Ward No. 09, Anladuba, Rairangpur, Mayurbhanj, Odisha - 757043, Director of GM Iron & Steel Company Ltd., having its registered office at P.O.- Rairamgpur, Dist- Mayurbhanj, Mayurbhanj - 757043, Odisha, do hereby undertake that there has been no violation in our project.

The existing steel plant at Village Kulei, Parjang in Dhenkanal District, Odisha, was implemented by M/s. Rana Sponge Ltd. after getting NOC from State Pollution Control Board, Orissa vide Letter No. 29790/Ind-II-NOC dated 04.10.2004 and Letter No. 14933/IND-II-NOC-3435 dated 09.05.2005 as per the prevailing notification of MoEF&CC, as per which Environmental Clearance (EC) was not applicable for the project as the project cost was less than Rs. 100 Crores. (The project cost was 48.52 Crores).

Sl. No.	Certificate Obtained	Memo No.	Date of Issue	Name of Unit	Obtained from	Violation, If any
1	Consent to Establish	29790/Ind-II-NOC	04.10.2004	<ul style="list-style-type: none"> DRI Kilns (1x100 TPD + 1x350 TPD) 2x10 T Induction Furnaces 12 MW CPP 	State Pollution Control Board, Orissa	No
2	Consent to Establish	14933/Ind-II-NOC-3435	09.05.2005	<ul style="list-style-type: none"> Rolling Mill - 30,000 TPA 	State Pollution Control Board, Orissa	No

GM Iron & Steel Company Limited

Kushal Choubey
Director

47409

No. _____ Sold to GON from And steel co etc
Address 7, Patel Road St No 2-69
Rs _____
Date 07 JUL 2023

SIPRA DEY

Licence No.: 18A

Code 070002023

1, N. S. Road, Kolkata-700 001



TO WHOM IT MAY CONCERN

DECLARATION OF THE SIGNER

I, the undersigned, do hereby declare that the above information is true and correct to the best of my knowledge and belief.

Signed and verified by me this _____ day of _____ 2023.

No.	Name	Address	Signature	Date

Director

3	Consent to Operate	5331/IND-I-CON-4699	31.03.2023	<ul style="list-style-type: none"> • DRI Kilns (1x100 TPD + 1x350 TPD) • 2x10 T Induction Furnaces • 12 MW CPP (8 MW WHRB + 4 MW AFBC) • CCM - 75,000 TPA • Rolling Mill - 30,000 TPA 	State Pollution Control Board, Orissa	No
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The plant was shut down from 2016 and went bankrupt. The unit was put to auction by the bank and it was purchased by M/s GM Iron and Steel Company Limited (GMISCL) from State bank of India under section 5 of the SARFAESI Act, 2002 on 17.03.2019.

M/s GMISL was granted Consent to Operate on the basis of Consent to Establish issued to M/s. Rana Sponge Ltd. without enhancement.

The units with rated capacity for which CTE and CTO was granted has only been established and are under operation at present. The production capacity is within the quantities permitted.

GM Iron & Steel Company Limited

Kusum Choubey
Director