BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN BENCH, PUNE

APPEAL NO. 27 OF 2022 (WZ)

IN THE MATTER OF:

Thakorbhai Vallabhbhai Khalasi …Appellant

Versus

Ministry of Environment, Forest and Climate Change and Ors.

…Respondents

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FILED THROUGH

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REPLY ON BEHALF OF RESPONDENT NO. 5

MOST RESPECTFULLY SHOWETH:

1. That the Appellant has approached this Hon'ble Tribunal by way of the captioned Appeal challenging the Environmental Clearance no. EC22A008GJ153411 [File No. J-11011/44/2004-IA II(I)] dated 02.03.2022 ("**Impugned EC**") issued by the Ministry of Environment, Forest and Climate Change ("**MoEFCC**") to ArcelorMittal Nippon Steel India Limited ("**Answering Respondent**") for the proposed modernization and modification of the integrated iron and steel plant by installing auxiliary facilities without increasing its capacity ("**Proposed Project**"), being located at Hazira Notified Industrial Area in village Hazira, taluka Choryasi, district Surat, Gujarat ("**Plant**").

2. It is submitted that save and except those which are a matter of record, all averments and submissions made by the Appellant are disputed and denied by the Answering Respondent as if traversed seriatim unless specifically admitted herein and therefore no part of this Reply should be deemed to be an admission for want of specific denial.

3. The present Reply is being filed in response to the captioned Appeal, with a view to oppose the grant of any relief(s) much less, interim and/or

ad-interim, as prayed for or otherwise, in favour of the Appellant and against the Answering Respondent herein. The present Reply intends to state the correct facts on record of the present case, contrary to what is being stated by the Appellant herein, which is not only without any basis, but also creates serious prejudice to the Answering Respondent herein. Answering Respondent reserves the right to file further affidavit(s), as and when required.

4. At the outset, it is respectfully submitted that the present Appeal is devoid of any merit, based on surmises and conjectures and is thoroughly incorrect and misconceived. Answering Respondent categorically denies and disputes each and every averment, allegation, contention and/ or submission, made by the Appellant, as the same are *ex-facie* erroneous, repetitive and suffer from complete non-application of mind.

5. It is respectfully submitted that the Appellant has approached this Hon'ble Tribunal by primarily challenging, *albeit* incorrectly, the grant of Impugned EC to the Answering Respondent on various grounds. The true copy of the Impugned EC dated 02.03.2022 is annexed herewith as **ANNEXURE R-5/1**.

6. The Answering Respondent is an environmentally conscious, law-abiding company and has in *bona fide* interest applied and obtained in a timely manner all requisite approvals, including permissions from Gujarat Pollution Control Board ("**GPCB**") and MoEFCC for operating the Plant. The Answering Respondent has been regularly submitting compliance reports to MoEFCC and GPCB under the applicable laws which shows that the operation of the Plant is in compliance with all the relevant environmental laws and the conditions stipulated therein.

7. It is noteworthy that the sustainability initiatives of the Answering Respondent have been acknowledged by the Ministry of Steel,

Government of India, as mentioned in its Annual Report 2019-20 wherein the Answering Respondent has been applauded and commended in the following words:

> *"Arcelor Mittal Nippon Steel India Ltd. (AMNSIL) lays a great emphasis on sustainability and is aligned with the World Steel Association's (WSA) sustainability indicators. AMNSIL is a climate action member and a signatory to the Sustainability Charter, WSA and has been recognized for Safety and Health Excellence many times in last six years from WSA."*

8. It is most respectfully submitted that the Answering Respondent was earlier named Essar Steel India Limited. Essar Steel India Limited went through the Corporate Insolvency Resolution Process ("**CIRP**") under the Insolvency and Bankruptcy Code, 2016. The resolution plan approved by the committee of creditors and eventually by the Hon'ble Supreme Court of India was implemented with effect from 16.12.2019, whereby the management and control of Essar Steel India Limited was handed over to ArcelorMittal India Private Limited. Accordingly, since then the Answering Respondent has been relentlessly working to turnaround the business as per the Resolution Plan and is in the process of reviewing its contractual and commercial positions.

9. It is humbly submitted that on 08.01.2020 the name of the Answering Respondent was changed from 'Essar Steel India Limited' to 'ArcelorMittal Nippon Steel India Limited'.

10. That before furnishing a paragraph-wise reply to the Appeal, the Answering Respondent is seeking to raise following preliminary submissions and objections to the present Appeal, which are without prejudice to and independent of one another.

PRELIMINARY SUBMISSIONS/ OBJECTIONS

(A) ANSWERING RESPONDENT HAS OBTAINED IMPUGNED EC IN COMPLIANCE WITH THE APPLICABLE LAW

11. It is respectfully submitted that the Impugned EC was obtained by the Answering Respondent in compliance with the applicable provisions of the Environment Impact Assessment Notification, 2006 ("**EIA Notification**"). The Answering Respondent received the Impugned EC on 02.03.2022 after having complied with all the necessary steps prescribed under the EIA Notification. Answering Respondent filed the application to obtain EC on 24.12.2020 as the Proposed Project is listed under Serial No. 3(a) of the Schedule to EIA Notification under the Category A. The Terms of Reference ("**TOR**") were issued by the Reconstitute Environmental Appraisal Committee (Industry) ("**EAC**") vide MoEFCC letter No. F. No. J-11011/44/2004-IA II(I) dated 08.02.2021.

    The true copy of the TOR dated 08.02.2021 is annexed herewith as **ANNEXURE R-5/2**.

12. It is submitted that the EIA Notification provides the three-step procedure for Category A projects as – Scoping, Public Consultation and Appraisal. EIA Notification defines the term 'scoping' as the process of determining detailed and comprehensive TOR addressing all relevant environmental concerns for the preparation of an Environmental Impact Assessment and Environment Management Report ("**EIA Report**") in respect of the project or activity for which prior EC is sought. Hence, it is noteworthy that TOR are points based on which the project proponent is required to prepare the EIA Report. They are not compliance targets for the project proponent but serve as factors that assume relevance for the proposed project and thereby need to be addressed in the EIA Report.

Accordingly, Answering Respondent prepared the Draft EIA Report based on the TOR issued by the EAC, through M/s. Shree Green Consultants which is an accredited EIA consultant under QCI-NABET Scheme for Accreditation of EIA Consultant Organisations.

13. The public consultation process was undertaken based on the Draft EIA Report. The Final EIA Report (December, 2021) was submitted to the EAC addressing all the material concerns expressed during this process after making appropriate changes in the Draft EIA Report. The Final EIA Report describes the compliance with all TORs issued by the EAC providing specific steps / plan for various aspects including waste management, greenbelt development, cumulative impact assessment and fugitive emissions.

14. The EIA Report for the Proposed Project is based on baseline environmental monitoring studies conducted during the post-monsoon season from 01 October, 2020 to 31 December, 2020 in a study area of 10 km radial distance from the Plant, in compliance with the applicable law. The report mentions the monitoring results of ambient air quality, surface and ground water quality, background noise level and soil quality. The anticipated environmental impacts and proposed mitigation measures are also provided for the following factors:

Factors	**Potential impacts and mitigation measures**
Air environment	<u>Potential impacts:</u> The construction and operation of the Proposed Project will result in gaseous emissions (PM, SO2 and Nox) from a single or small group of stacks. Fugitive dust emission will be due to raw materials handling, loading and unloading of raw materials and finished goods, conveying and feeding point, vehicular movements, crushing & screening operations etc.

	Current status: The ambient air quality analysis reports are within prescribed limits. Proposed mitigation measures are: (a) adequate pollution control equipments like bag filter, water scrubber, electrostatic precipitator (ESP), etc. along with online continuous monitoring system are installed for the existing stack and shall also be provided for the proposed stacks as per the applicable guideline; (b) it shall be ensured that all stacks including proposed stacks shall have adequate heights as per the applicable norms of GPCB / Central Pollution Control Board ("**CPCB**"); (c) periodic stack monitoring and fugitive emission monitoring will be done; (d) periodic checkup of all air pollution control equipments to ensure their proper functioning. EIA Report also provides the mitigation measures to reduce air pollution during and after construction of the Proposed Project and to control fugitive emission. Detailed action plan to reduce emissions with short- and long-term actions, cost, target date is also provided.
Water environment	Current status: The surface and ground water analysis parameters are within prescribed limits. Potential impacts: Water will be sourced from Tapi river. Wastewater generated will be treated through Reverse Osmosis ("**RO**") mechanism and reused in the Plant to ensure zero liquid discharge ("**ZLD**"). No water will be

	sourced from groundwater sources and rainwater harvesting practice will be followed to improve groundwater condition. Mitigation measures: To avoid groundwater contamination, following mitigation measures are proposed: (a) raw materials, finish products and solid waste will be stored in separate stockyards; (b) all stockyards will be designed with the impervious flooring; (c) garland drain will be provided to all stockyards area to trap run off material; (d) any spillage of hazardous waste or contamination will be immediately removed; and € regular ground water monitoring will be carried out.
Noise environment	Potential impacts: The construction and operation of the Proposed Project may generate noise from rotating equipment, air blower, compressor, diesel generator, mechanical operations, vehicular movements etc. Mitigation measures: Following mitigation measures are proposed: (a) use of adequate noise control measures such as mufflers, silencers, anti-vibration pad for equipment with high vibration; (b) use of earmuff and earplugs by the operators; (c) housing / casing shall be provided for all noise generating machines; (d) regular maintenance of equipment€(e) limiting activity within day hours; (f) regular monitoring of noise level.
Soil environment – solid and	Current status: Soil sampling results show the parameters within prescribed limits.

hazardous waste management	Mitigation measures: There is a specific action plan for management of solid and hazardous waste generated at each unit of the Plant.
Ecological environment	Current status and mitigation measures: Studies were conducted for biological characterization of terrestrial and aquatic environments and changes in species diversity of flora and fauna in terrestrial as well as aquatic systems. Details of flora and fauna species covering 10 km radius have been collected to determine the existence of rare and/or endangered species. Wildlife conservation plan was also provided.
Environmental Monitoring Programme	Mitigation measures: Final EIA report specifies the sampling locations, parameters to be analyzed and frequency of sampling for monitoring the environmental parameters at the Plant. This will cover aspects like meteorology, stack emission, ambient air quality, fugitive emission, noise, industrial effluents, surface and ground water, soil analysis and performance of pollution control equipment.
Environmental Management Plan	Mitigation measures: The detailed plan covers the measures to control pollution concerning aspects like air quality, water quality, noise level, land, solid waste, ecology, greenbelt development, etc. during construction and post construction phase of the Proposed Project.
Environment Pollution Control Equipment	Mitigation measures: Details of pollution control equipment that will be installed at the Plant with capital cost (INR 1682

	crore) and recurring cost (INR 378 crore) are provided.
Environmental Hazard	Mitigation measures: On site emergency plan has been prepared for storage and handling of chemicals, raw material, product at the Plant.

15. The EIA Report covers all relevant aspects mentioned under the EIA Notification and TORs issued by the EAC. The EIA Report also provides the Impact Identification Matrix analysing potential impacts of the Proposed Project and their significance on aspects like environment, agriculture, pollution, socio-economic activities, ecology, air and water quality, etc., thereby profiling different material factors in the region. EIA Report also mentions the ecological impacts of the Proposed Project on fisheries and aquatic life in the region and notes that as the Proposed Project will only involve modifications in the existing Plant, it will not have any significant impacts on the local ecology.

16. The EIA Report has examined socio-economic factors considering the population in village Hazira. The perception of local population was also obtained for the EIA Report, which notes the views of residents across socio-economic groups, age, gender and locations. People have expressed benefits of the Proposed Project like employment generation, improvement in basic services and quality of life, local area and infrastructure development, etc. They have also mentioned that industries in the area including Answering Respondent are contributing in measures to reduce pollution and are actively engaged in Corporate Social Responsibility ("**CSR**") activities for local area development. Answering Respondent has noted that the issue of pollution, particularly air pollution, and its impacts on health, land, crops and ecology is an important concern in the region. To address this concern, Answering Respondent has taken several steps like installing air pollution control equipment in the Plant, installing continuous online emission monitoring

system, sweeping of roads to control dust, etc. The issue of pollution will be further addressed as a part of the Proposed Project through adequate pollution control measures to reduce air pollution load and recycle and reuse of wastewater within the Plant.

17. It is humbly submitted that for high pollution level in the region, there is a strong possibility that such pollution could have been caused by other factors including other industries operating in the area. Hence, it is mischievous and unfair to attribute such pollution solely to the Answering Respondent.

18. The Impugned EC has been granted after following the prescribed procedure in the EIA Notification:

(i) Answering Respondent has addressed the concerns raised at the public consultation process of EIA Notification

19. It is respectfully submitted that the public hearing for the Proposed Project was held on 21.09.2021. Various concerns were raised by locally affected persons at the hearing, which were duly responded to by the Answering Respondent at the time of the hearing and addressed in the Final EIA Report. Some of the major concerns raised at the hearing and responses provided to address them are mentioned below:

Major concerns raised at the public hearing dated 21.09.2021	**Response by Answering Respondent**
Direct and indirect employment to local people	Answering Respondent has taken over the business from Essar Steel India Ltd. after its insolvency resolution process. The manpower requirement for Proposed Project is 1,770 persons. Post modifications in the Plant, the requirement will increase to 15,290

	persons (as per revised estimates, this requirement will increase to 15,270 persons from the current manpower level of 13,500). The local employment concerns will be addressed and employment to residents of Gujarat will be worked out as per the rules. The Sarpanch will be informed when vacancy arises and relevant criteria that support the local population will be set. (Pages 330, 334-335 of the Appeal)
Pollution in the region due to industrial activities and its impacts on local people	Answering Respondent has taken a serious consideration of environmental management at the Plant. Previous owner could not install pollution control devices due to various reasons, but now Answering Respondent has taken over this Plant and is considering installing all necessary devices to prevent pollution. In the presentation made at the hearing, Answering Respondent provided that various equipments will be installed so that the particles are caught and disposed of before they go into the air. This will improve the amount of particulate matter that is presently at 80%, reducing it from the ambient level. (Pages 331-332 of the Appeal)
Movement of Plant's vehicles on road results in overcrowding. Diversion of traffic or	It was responded that transportation is a complex issue. It will be planned with the State Government authorities and other industries for resolution with concrete actions. The drainage system will also be

an alternate road is required.	considered for these roads for stormwater discharge. (Pages 332, 336 and 345 of the Appeal)
Healthcare facilities in the region	Answering Respondent had arranged for a COVID-19 facility to help local residents. It will take appropriate steps along with other industries and villagers to provide a hospital. Answering Respondent proposes to spend INR 16 crore over a period of 5 years for activities including health, education, sports and training (as per the revised estimates, Answering Respondent will now spend INR 21 crore over a period of 3 years for these projects). (Pages 331, 337 and 341 of the Appeal)
Discharge of wastewater from Plant into Tapi Estuary	The treated wastewater is being discharged into Tapi Estuary in compliance with conditions prescribed in Consolidated Consents and Authorizations ("**CCA**") and ECs issued to the Plant. The EC dated 09.03.2016 was issued to Essar Steel India Ltd. (previous owner) prior to the CIRP for expansion of the Plant, but it could not be implemented due to financial constraints and the then ongoing litigation before the Hon'ble National Company Law Tribunal ("**NCLT**"). Since the expansion project was never executed, this condition is currently not applicable. Plant proposes to implement the RO mechanism at the Plant as part of the proposed EC, which will make it ZLD unit. RO reject will be used for slag quenching.

	(Pages 333-334 of the Appeal)
Addressing issues related to gases like carbon monoxide	Answering Respondent has prepared an emergency plan for any leakage and alarm systems are also in place. (Pages 337-338 of the Appeal)
Location of public hearing inside Plant premises.	Project premises was determined as location for public hearing by the GPCB and local authority as EIA Notification requires it to be held at the site or in its proximity. (Pages 329-330 of the Appeal)

20. It is humbly submitted that issues related to fisheries business were also raised during the public hearing and Answering Respondent responded that there is no reliable information/data confirming the number of people who are connected with the fisheries business and therefore it is not feasible to make any assessments in this regard. Answering Respondent will implement different projects for regional development of Hazira and other CSR related activities at a cost of around INR 21 crore over a period of 3 years.

21. It is respectfully submitted that apart from the abovementioned major concerns raised at the public hearing, several individual-specific concerns were also addressed by the Answering Respondent during the hearing. Additionally, 31 written representations were also received by the Answering Respondent as a part of the 'public consultation' process, including from the Appellant (dated 16.09.2021) herein. Answering Respondent ensured that each of the concerns raised by different persons through the written representations is duly addressed. The Appellant has itself at page 412 of the Appeal provided a list of all the persons who had raised their concerns through the representations, each of which have been duly responded to by the Answering Respondent to address all their concerns. GPCB had also forwarded certain representations to Answering Respondent for response and necessary action, these

concerns were also addressed. Copies of all the detailed responses could also be produced before this Hon'ble Tribunal if need be. A brief of the responses provided by Answering Respondent to some of the major concerns raised in these representations have been reproduced below for reference:

Major concerns raised in written representations received from public	**Responses provided by Answering Respondent**	**Incorporation of relevant aspects in the Final EIA Report (December, 2021)**
Illegal discharge of untreated/half-treated wastewater into Tapi Estuary in violation of the EC dated 09.03.2016 and CCA issued by GPCB. MoEFCC's Certificate of Compliance dated 07.01.2022 mentions Plant's non-compliance with ZLD condition.	CCAs issued by GPCB to 03 units of the Plant – HRC, Plate Mill and Power Division allow Answering Respondent to discharge treated wastewater into Tapi Estuary. As part of the Proposed Project, RO system will be set up and Plant will ensure ZLD. Collection and testing of wastewater samples is regularly caried out by National Accreditation Board for Testing and Calibration Laboratories ("**NABL**") and MoEFCC accredited third-party laboratory. GPCB also collects and tests these samples during site visits.	Treated effluent will be reused within the Plant and ZLD will be achieved. Detailed ZLD scheme for the Plant is provided. Construction work is under progress and Answering Respondent has already spent INR 17.5 crore for installation and implementation of ZLD scheme. (Pages 924-927 and 1036-1037 of the Appeal)

	The results are within prescribed standards.	
Pollution of coastal areas and sea and reserved forest by Answering Respondent. Disposal of iron slag and other waste in coastal areas and sea is affecting fisheries in the region, which impacts health of local population as they consume fish.	Answering Respondent disposes the hazardous waste in compliance with applicable law. No waste is disposed in the sea. The TORs issued to Answering Respondent requires it to only prepare terrestrial EIA. Marine monitoring report of Tapi Estuary has been conducted and submitted along with EIA report. Testing of effluent discharge is done by NABL and MoEFCC approved laboratory and results are regularly submitted to GPCB. Only treated wastewater is discharged into Tapi Estuary and no pollution is caused in the estuary due to such discharge. As per Gujarat Maritime Board, this is a navigational channel and fishing activity	Details of solid and hazardous waste generation and management at the Plant is provided, along with details of Memorandum of Understanding between Answering Respondent and waste vendors. Plant reutilises / sales 80% of solid waste generated and it is planning to achieve 100% reutilisation. Various reuse-recycling measures of major solid and hazardous waste have also been taken. Effluent Treatment Plant ("**ETP**") sludge is converted into micro pellets for reuse in sinter plant. (Pages 961-964 of the Appeal) Monitoring analysis of Tapi Estuary and detailed marine report is provided.

	is prohibited due to navigational safety aspect.	(Pages 980-981 of the Appeal.) Mangrove survey and Coastal Regulation Zone ("**CRZ**") study are also provided. (Page 1204 of the Appeal) Detailed wildlife conservation plan is prepared and two season marine study (dated November, 2020) has also been conducted. (Pages 835, 1018 and 1229 of the Appeal)
Report by ATIRA shows effluents discharge from the Plant exceeds the prescribed standards. Industrial effluents affect the natural stream passing beside the Plant finally meeting Tapi river. Contaminated stream is being discharged from north-west boundary of the Plant.	Collection and testing of wastewater samples is regularly caried out by NABL and MoEFCC accredited third-party laboratory. GPCB also collects and tests these samples during site visits. The results are within prescribed standards.	Wastewater sample analysis by accredited laboratories is provided. (Pages 975-980 of the Appeal)

Indiscriminate dumping of iron slag, hazardous and solid waste within the Plant. Heaps of waste is visible inside Plant, which is severely polluting land and groundwater.	No storage of hazardous waste within the premises. Only solid non-hazardous wastes such as granulated slag, EAF slag are stored. All iron bearing solid non-hazardous waste is being reutilised in the system. Non-hazardous slag is exported to other countries as an additive in cement manufacturing, as allowed by the Ministry of Steel.	There is a specific action plan for management of slag, solid and hazardous waste generated at each unit of the Plant. (Pages 961-964 and 1043 of the Appeal) Soil sampling results are provided, which are within prescribed limits. (Page 994 of Appeal) Detailed study on impact of the Proposed Project on groundwater is conducted. Although only surface water will be used for project, mitigation measures and action plan are also provided to avoid groundwater contamination. Groundwater analysis reports are also provided which are within the prescribed limits. (Pages 975-979 and 1037 of the Appeal)

Units proposed to be constructed in EIA Report are already constructed and existing. It can be observed through comparison of satellite imagery of 2017 and 2020-21.	These projects are of debottlenecking activities of existing facilities and are coming in the existing unit/adjacent to existing units. Hence, it can't be visualised properly through Google image. GPCB had also inspected the Plant pursuant to CTE application filed by Answering Respondent.	Not required.
Air pollution issues due to release of hazardous dust and smoke from Plant.	Answering Respondent has taken various short- and long-term measures to control air pollution. Time-bound action plans are in place in this regard, which have also been submitted to GPCB. Various actions implemented are: (a) fume extraction / dust collection system has been modified and revived for efficient suction; (b) bag house capacity is increased, and filter bags are replaced; (c) manual water sprinkling is done in and around Plant, and also on roads; (d) road sweeping machines have been increased from 2 to 7	Plant's internal roads are paved and regularly cleaned through the industrial vacuum cleaner to reduce fugitive emission. Existing roads were strengthened at a cost of INR 2.5 crore and additional new road sweeping machines have been deployed for increasing cleaning frequency. (Pages 831 and 1026-1028 of the Appeal) Mitigation measures to reduce air pollution during and after construction of the

	for road cleaning; (e) manual cleaning of roads and surrounding areas is enhanced by employing additional manpower to 270 per day. Proposed actions: (a) further upgradation of secondary fume extraction system of SMP1; (b) SMP2-bellow, impeller and casing replacement; (c) Corex – bags replacement and concrete flooring; (d) BF – stock house dedusting system modifications. Stack monitoring is being regularly done through NABL and MoEFCC accredited third-party laboratory. GPCB also collects and tests these samples during site visits. The results are within prescribed limits.	Proposed Project are provided. Answering Respondent has prepared a detailed action plan to reduce emissions with short- and long-term actions, cost, and target date. (Pages 956-958 and 1020-1035 of the Appeal) A budget outlay of INR 173 crore has been approved by the Board of Directors in this regard. (Pages 830-831 of the Appeal) Continuous Emission Monitoring System is installed in all existing stacks and will be installed in all proposed stacks. (Page 959 of the Appeal) Detailed Environmental Monitoring Plan is provided which covers aspects like

		meteorology, stack emission, ambient air quality, fugitive emission, noise, industrial effluents, surface and ground water, soil analysis and performance of pollution control equipment. (Pages 1059-1061 of the Appeal) Environmental Management Plan provides measures that will be taken to control air pollution from the plant such as dust and fugitive emissions. (Pages 1216-1219 of the Appeal) Detailed cost for such equipment with capital cost (INR 1682 crore) and recurring cost (INR 378 crore) is provided. (Page 1234 of the Appeal)
Location of public hearing is inside Plant premises instead of	Location was determined by government authorities as per the EIA Notification.	Not required.

open space near panchayat house.		
Need for alternative roads for villagers as the main road is crowded with vehicles from industries and other sensitive infrastructure like LNG terminal, hydrocarbon storage tanks, HSD storage. No escape route for residents in case of an emergency.	There are currently 2 roads connecting Hazira village. Answering Respondent is maintaining the main road. Government can suggest suitable options for alternative escape route.	Traffic study of the area was conducted. Impact of transportation on surrounding environment and on existing road network was examined. (Pages 991 and 1047 of the Appeal) Detailed analysis of hazardous material at the Plant and risk scenarios, along with effects and response plan, is provided. Disaster management plan, on-site and off-site emergency plan are also provided. (Pages 1091-1182 and 1188-1204 of the Appeal)
As per condition in EC dated 09.03.2016, green cover within Plant premises should be 33% of total area. It is 80 ha. against mandated 254 ha. Garden and lawn in	EIA report mentions that existing greenbelt is developed in 171 ha. Additional 83 ha. will be earmarked for greenbelt, after which it will be 254 ha. Trees will be planted at boundary, roadside, around	EC dated 09.03.2016 was not implemented by the previous owner due to financial constraints and the then ongoing litigation before the Hon'ble NCLT.

Plant does not count as green cover.	offices and buildings, and in open land.	The existing greenbelt is 171 ha., proposed greenbelt is 83 ha. and target of 254 ha. (33%) will be achieved. Detailed plan for greenbelt development is provided with selection of plants and other guidelines. (Pages 1223-1229 of the Appeal)
Contrary to EC condition, 5% of project cost on Enterprise Social Commitment and 2% on CSR are not utilised in last 2 years	Previous owner was undergoing insolvency proceedings. Answering Respondent remains committed to Enterprise Social Commitments as per the EC condition. Various CSR initiatives have been initiated like skill development, health camps, and mitigation/control of COVID-19 pandemic.	Detailed Corporate Environment Responsibility and CSR plans are provided. Budget outlay of INR 16 crore over a period of 5 years is provided. This has now been revised to the budget outlay of INR 21 crore over a period of 3 years. (Page 1207 of the Appeal)
Cumulative impact assessment study was not done for entire premises.	EIA report has addressed the pollution control / mitigation methodologies for existing and proposed facilities in the Plant.	Cumulative impact assessment has been carried out considering modification projects, coke oven facility and other existing operations.

		(Pages 1049-1053 of the Appeal)
No action plan in Draft EIA Report for fugitive emissions	Draft EIA Report – Impact Assessment and Environmental Management Plan (chapter No. 4) addresses this aspect.	Measures that have been and will be implemented by Answering Respondent to reduce fugitive emissions are provided. Certain instances are: (a) fume extraction system has been modified and revived for efficient suction; (b) dust collection and extraction system has been strengthened; (c) bag house capacity is increased and filter bags have been replaced. (Page 1218 of the Appeal)
Blocking of flow of Tapi river by illegal bunds and reclamation activities in CRZ areas	No reclamation activity is envisaged in the Proposed Project. There is no dumping of any waste in the sea.	Not required as this was not part of the Proposed Project.
Forest clearance application has been filed for industrial activities in CRZ area which is not permitted.	No additional land is required for this project, and it will be implemented within the existing Plant premises. This application for forest clearance does not	Detailed wildlife conservation plan for Peafowl and White-Rumped Vultures is provided. (Pages 1018 and 1229 of the Appeal)

Company has encroached on Reserve Forest land. MoEFCC has issued forest clearance for this illegal occupation. The land had toddy palm trees on which vultures were nesting and roosting. This critically endangered species has disappeared from the region. The case against this encroachment and forest clearance is pending in WPPIL 34/2021 before Gujarat High Court. The present EC involves this land.	pertain to the Proposed Project. As per studies, the said vulture species exists in the area and amount has been earmarked for its protection. The said petition has now been disposed by the Gujarat High Court and disputed lands are not involved in the Proposed Project.	The Proposed Project is outside the CRZ area as per the CRZ study. (Page 1205-1206 of the Appeal)
Health impacts of pollution on local population, increasing number of cancer related deaths.	In the Proposed Project, Answering Respondent will setup environmental protection facilities and has proposed INR 1,185 crore towards environmental protection measures.	Public hearing action plan covering education, healthcare, environment pollution, employment and infrastructure, etc. is provided. The existing and proposed Corporate Environment Responsibility measures

		for improving healthcare facilities in the region are also provided. (Pages 1080-1082 and 1207 of the Appeal)
Marine- Chemical and Biological Environmental Monitoring Report of Tapi Estuary notes high levels of Phenol and PHc in Tapi Estuary indicating discharge of untreated effluents by Company.	There is no source of Phenol and PHc compounds from the Plant's operations. This is due to marine vessel operations in the Tapi Estuary.	Ecological Impact Assessment of the Proposed Project was conducted, which considered impacts due to pollution, fugitive emissions, wastewater, noise, etc. (Pages 1044-1046 of the Appeal)

22. It is noteworthy that all the specific issues (which were allegedly left unaddressed by Answering Respondent, as per the Appellant) were duly addressed during and after the public hearing. As stated earlier, Answering Respondent had provided written responses to the representations received from public. In fact, through a letter dated 21.09.2021, Answering Respondent had sent a point-wise response to the Appellant's representation dated 16.09.2021. The public hearing proceedings, written representations received, and responses furnished to address them were provided to the EAC. Necessary revisions were also made in the Draft EIA Report to submit Final EIA Report to EAC.

    True copy of the letter dated 21.09.2021 providing Answering Respondent's point-wise response to Appellant's concerns is annexed herewith as **ANNEXURE R-5/3**.

23. It is respectfully submitted that the Proposed Project seeks to establish auxiliary facilities in the Plant to support the existing facilities in achieving their permitted production capacities, as till date these facilities were operating at about 7.2 MTPA capacity.

24. The Proposed Project will mainly add CRM-2, coke oven and lime / dolime kiln units in the Plant.

(ii) EAC has examined all relevant considerations and applied its mind while appraising the Proposed Project

25. It is humbly submitted that as per Clause 7(i)(IV)(i) of the EIA Notification, EAC is required to undertake a detailed scrutiny of the application and other documents like Final EIA Report, outcome of the public consultation process including public hearing proceedings, etc. This appraisal is done in a transparent manner and EAC is required to recommend acceptance or rejection of the application for EC.

26. It is most respectfully submitted that the courts have laid down certain principles for the review of decisions related to environmental decisions by administrative authorities. The Hon'ble Supreme Court, in *Lafarge Umiam Mining Pvt. Ltd. v. Union of India & Ors., (2011) 7 SCC 338*, observed as follows:

"In the circumstances, barring exceptions, decisions relating to utilization of natural resources have to be tested on the anvil of the well-recognized principles of judicial review. Have all the relevant factors been taken into account? Have any extraneous factors influenced the decision? Is the decision strictly in accordance with the legislative policy underlying the law (if any) that governs the field? Is the decision consistent with the principles of sustainable development in the sense that has the decision-maker taken into account the said principle and, on the basis of relevant considerations, arrived at a balanced decision? Thus, the court should review the decision-

making process to ensure that the decision of MoEF is fair and fully informed, based on the correct principles, and free from any bias or restraint. Once this is ensured, then the doc"rine of "margin of app"eciation" in favour of the decision-maker would come into play."

(Emphasis supplied)

27. Similarly, in *Sterlite Industries (India) Ltd. & Ors. v. Union of India [(2013) 4 SCC 575]*, the Supreme Court observed the following grounds for judicial review of administrative decisions under environmental law: illegality, irrationality/unreasonableness and procedural impropriety.

28. It is submitted that this Hon'ble Tribunal had observed in *Anil M. Khedekar v. Secretary, Ministry of Environment and Forests & Ors (Appeal No. 38/2014 (WZ), dated 14.07.2017)* that it is a well settled law that appeals against ECs are required to be restricted on the touchstones of legality, reasonability, propriety and application of mind. In this case, NGT had denied an appeal against the grant of EC as EAC had considered all relevant aspects and concerns, including those raised by the appellant, while appraising the project concerned. Although there were certain shortcomings in the process, appellant failed to show compelling reasons to hold EAC proceedings as arbitrary, unreasonable and vitiated.

29. It is most respectfully submitted that based on the aforesaid judicial precedents, it is clear that the Impugned EC can be challenged only if it suffers from non-application of mind, non-consideration of material aspects, consideration of extraneous factors and breach of law. In the instant case, the Impugned EC does not suffer from any of these grounds as the recommendation by EAC was based on adequate consideration of relevant factors; it was in compliance with applicable provisions of EIA Notification; and it was made after due application of mind. During the appraisal, EAC had also ensured to obtain more clarity on various aspects from the Answering Respondent to further understand the relevant

factors related to the Proposed Project. Hence, there is no valid reason for the Appellant to file the present Appeal against the Impugned EC.

30. It is submitted that the concerns raised during the public consultation process were addressed in the Final EIA Report and EAC considered them along with other relevant aspects mentioned in the Final EIA Report at the appraisal stage of the Proposed Project. Hence, the allegations of the Appellant are unwarranted.

31. Appellant has mischievously alleged that EAC failed to consider the following aspects: (a) compliance with ZLD condition prescribed in EC dated 09.03.2016; (b) conditions in CCAs issued by GPCB allowing discharge of treated wastewater by Answering Respondent; (c) notices being issued by GPCB against the Plant since 2011; (d) Final EIA Report failing to address problems like air pollution, storage and disposal of slag, ETP sludge, wastewater discharge into stormwater drain and fugitive emission.

32. It is noteworthy that all these specific aspects were addressed in the Final EIA Report (as highlighted above in paragraph 21 of this Reply). Further, basis the information provided in the Final EIA Report, EAC had in its meeting dated 10.02.2022 and 11.02.2022 considered these aspects in detail. It can be observed from the minutes of the EAC meeting:

    a. EAC noted that the proposals approved and the conditions prescribed in EC dated 09.03.2016 could not be implemented due to the financial constraints and the then ongoing litigation before Hon'ble NCLT against the previous owner. The Proposed Project seeks to implement those proposals with certain modifications. (Page 717 of the Appeal)
    b. Certified compliance report prepared by the Integrated Regional Office ("**IRO**"), MoEFCC, Gandhinagar dated 07.01.2022 regarding compliance by Answering Respondent with earlier

ECs was also considered. Basis this report, it was noted that it is non-compliant with only two conditions and two are partly complied with. This aspect has also been noted below in paragraphs 57 to 60 of this Reply. (Page 751 of the Appeal)

c. The details of generation and management of solid and hazardous waste at the Plant were also considered. (Page 727 of the Appeal)

d. The major issues raised at the public consultation process and action plan prepared by the Answering Respondent to address those issues were also considered. The Answering Respondent disclosed to the EAC that certain environmental improvement projects could not be implemented by the previous owner due to its financial constraints and the then ongoing litigation against it before the Hon'ble NCLT. The Answering Respondent has accordingly prepared a detailed action plan for environmental improvement to address aspects like fugitive emission, dust, road repairs, greenbelt development, etc. (Pages 732 and 745 of the Appeal)

e. The cost outlay for environmental protection measures with capital cost being more than INR 1,688 crore and recurring cost being more than INR 378 crore was duly noted. (Page 734 of the Appeal)

f. The status of greenbelt development at the Plant and proposed action plan was also considered. (Page 734 of the Appeal)

g. The show-cause notice and notices of directions received by the Answering Respondent from GPCB after 16.01.2020 were disclosed in the Final EIA Report along with the compliance status, action plan implemented and further observations received from GPCB. (Page 735 of the Appeal)

h. The public representations received by MoEFCC and EAC (including the Appellant's representation dated 16.09.2021) were forwarded to IRO, Gandhinagar seeking point-wise reply. IRO provided its responses to these representations based on the

site visit to the Plant on 17.12.2021 and 18.12.2021. The comments received from the IRO, Gandhinagar were noted as mentioned below:

1. On ZLD condition, it was noted that Answering Respondent is discharging treated wastewater outside the premises through three outlets approved by GPCB. The construction work for ensuring ZLD has already started and is expected to be completed by December, 2023. Please note that this timeline was subsequently revised to March, 2023.
2. On the alleged issue of large heaps of waste lying in the open areas causing groundwater pollution, IRO observed that no sludge was found near the ETP. There are storage areas for ETP sludge and it is disposed at TSDF site. Design of sludge storage area needs to be improved to prevent mixing of rainwater with solid waste.
3. On the alleged issue of disposal of slag and other waste into the sea, it was noted that the Plant is reutilising 80% of its solid waste and is currently exploring various options and technologies to achieve 100% reutilisation. The slag storage area was also inspected. It was informed that the Answering Respondent is in discussion with National Highways Authority o“ India ("**NHAI**”) to use the slag in road construction (please note that Answering Respondent subsequently supplied the slag to NHAI for trial in road construction so that it can be used on a long term basis). They are also in negotiation in Research Designs and Standards Organization, Indian Railways for replacing ballast with steel slag.

   (Page 756 of the Appeal)

i. EAC had in its meetings dated 28.01.2022 noted several shortcomings in the information provided in the Final EIA

Report concerning aspects like TOR related compliances, structuring of the Final EIA Report, etc. Accordingly, EAC directed Answering Respondent to submit the revised information. (Page 758 of the Appeal)

j. Answering Respondent submitted a revised application dated 05.02.2022 addressing all the observations made by EAC. The revised application mentioned that all TOR points have been compiled in the Final EIA Report. Updated sheets along with supporting annexures were also submitted in the Revised EIA report. Some of the aspects addressed therein are as mentioned below:

    1. ZLD scheme for the entire Plant premises will be implemented by March, 2023.
    2. The revised action plans to reduce air pollution included installation of additional air pollution control measures such as water scrubber, venturi scrubber, bag filter, de-dusting system, screen filter, electrostatic precipitator (ESP) for capturing the fugitive emission from material handling areas and process; implementation of the Environmental Improvement Roadmap Plan; repairing of roads outside the Plant premises; deployment of additional sweeping machines; use of cleaner fuel; etc. (Page 760 of the Appeal)
    3. The action plan to address issues raised in public hearing has been prepared as per the regulations. The rural development projects will be completed at a cost of around INR 21 crore and pollution related action plan will be implemented within 3 years by December, 2024. (Page 761 of the Appeal)
    4. The revised action plan for greenbelt development was submitted with a target of achieving 33% greenbelt in the Plant premises. (Page 761 of the Appeal)

5. The Proposed Project falls outside the CRZ area as per the mapping exercise done by Institute of Remote Sensing, Chennai in June 2021. (Page 763 of the Appeal)
6. Cumulative Impact Assessment study has been done for the Proposed Project considering modification projects, coke oven facility, other existing operations including captive jetty. (Page 763 of the Appeal)
7. Installation of continuous emission monitoring system and improved environmental operational control in the existing air pollution control measures will be ensured. Advanced alarm system will also be provided for warning in case of breach of emission limits. (Page 764 of the Appeal)
8. Study for toxic metals including mercury, arsenic from emissions at the Plant was carried out and their presence was not detected. (Page 765 of the Appeal)
9. Test for toxic metal content in the waste was carried out and results indicated that the slag is non-hazardous. (Page 765 of the Appeal)
10. New Sinter plants are proposed under upcoming project for expansion from 9.6 to 15.6 MTPA and MEROS like technology will be implemented in that expansion. It is noteworthy that EAC was aware of the application filed by Answering Respondent for expansion of the Plant. Thus, it cannot be stated that Answering Respondent has not disclosed about the expansion project during EC application for Proposed Project (Page 766 of the Appeal)
11. To reduce air pollution, only gas-based fuels will be used in all units of the Plant except coke oven plant, sinter plant -1, blast furnace 1 and corex plant. (Page 769 of the Appeal)

k. Basis these responses and revisions provided by Answering Respondent, EAC observed that the EIA Report for the Proposed Project follows the prescribed TORs and reflects the present environmental concerns. EAC also deliberated on action plans and responses submitted by the Answering Respondent to address issues raised at public consultation stage and found them satisfactory. (Page 769 of the Appeal)

l. EAC also deliberated on the compliance status report submitted by IRO, Gandhinagar regarding compliance with conditions prescribed in earlier ECs and action taken report submitted by the Answering Respondent for compliance with such conditions. These were also found satisfactory. (Page 769 of the Appeal)

33. It is further submitted that EAC noted that the Answering Respondent is discharging treated effluents into Tapi Estuary through three points after obtaining consents from GPCB. It further noted that the effluent quality monitoring system was also installed at these outlets and discharge was within prescribed limits. The IRO, Gandhinagar inspected the Plant for compliance with ZLD mechanism and observed that Answering Respondent is already in the process to achieve ZLD. The construction work that has been initiated to ensure ZLD was also observed during the inspection. EAC also considered that EC dated 09.03.2016 prescribes ZLD whereas, GPCB consents permit discharge of treated effluents. However, after taking into consideration the comments by Answering Respondent that the project for which EC dated 09.03.2016 was sought could not be implemented and that the Answering Respondent is already in the process to ensure ZLD at the Plant, EAC was satisfied with Answering Respondent's compliance with the conditions of all existing ECs. Accordingly, EAC recommended the grant of EC for the Proposed Project.

34. It is respectfully submitted that EAC had examined and given adequate consideration to all relevant aspects while appraising the Proposed Project. The representation sent by Appellant dated 16.09.2021 was also taken into consideration and responses were sought from IRO, Gandhinagar after a site visit. The compliances by Answering Respondent with earlier ECs were also considered along with responses furnished by the Answering Respondent. The steps taken and proposed by the Answering Respondent on environmental aspects like air pollution, fugitive emission, wastewater discharge, greenbelt, etc. were also considered. Hence, EAC has taken an informed decision before giving its recommendation for EC. This decision is based on adequate consideration of relevant factors; is in compliance with applicable provisions of EIA Notification; and has been taken after due application of mind. It is also submitted that Answering Respondent has not concealed any factual data from the authorities, and genuine data and information has been furnished in the application. Based on the informed recommendation of the EAC, MoEFCC granted the Impugned EC on 02.03.2022.

35. It is humbly submitted that Answering Respondent will ensure compliance with all conditions prescribed in the Impugned EC, particularly related to ZLD, air pollution control measures, fugitive emissions, greenbelt development, installation of 24x7 continuous emission and effluent monitoring system, groundwater quality, paving and vacuum cleaning of roads, reutilization of solid waste within the Plant.

(B) ANSWERING RESPONDENT HAS NOT UNDERTAKEN CONSTRUCTION ACTIVITIES PRIOR TO GRANT OF IMPUGNED EC

36. It is respectfully submitted that Answering Respondent had not constructed any facility for which the EC was sought prior to the grant of Impugned EC by MoEFCC.

37. It is noteworthy that the Proposed Project contains debottlenecking activities for existing facilities, which are being constructed in the existing unit or adjacent to existing units. Hence, it can't be visualised properly through Google images. GPCB had also inspected the Plant pursuant to application for Consent to Establish filed by Answering Respondent.

38. It is most respectfully submitted that since no construction of auxiliary facilities proposed in the Impugned EC has been completed, this is not a case of *ex post facto* EC.

(C) ANSWERING RESPONDENT HAS COMPLIED WITH ALL CONDITIONS PRESCRIBED IN EARLIER ECs AND CCAs

39. It is respectfully submitted that the Answering Respondent has been undertaking its operations at the Plant in complete compliance with the terms and conditions prescribed by MoEFCC and GPCB. The Answering Respondent is not discharging any untreated industrial effluents into Tapi Estuary.

(i) Conditions prescribed in ECs for different divisions

40. That the Answering Respondent was granted different ECs by MoEFCC for its various divisions/units. The relevant condition for effluents discharge in the EC for Power Division dated 21.09.2006 reads as:

> *"3(xi) The liquid effluents shall be used within the plant to the extent possible. The balance effluents after treatment and*

conforming to the prescribed standards shall be discharged into Tapi Estuary through existing channel."

41. The EC for HRC division was granted on 29.05.2008. The condition relevant for effluents discharge in this EC reads as:

"A. Specific Conditions:

(ii)*... An effort shall be made to recycle and reuse the treated waste water in the process itself to reduce quantity of water consumption and effluent discharged into river Tapi...*"

42. The relevant condition for effluents discharge in the EC for Plate Mill Division dated 29.05.2008 reads as:

"A. Specific Conditions:

(iii)*... An effort shall be made to recycle and reuse the treated waste water in the process itself to reduce quantity of water consumption and effluent discharged into river Tapi...*"

43. The relevant condition for effluents discharge in the EC for Conarc division dated 05.07.2010 reads as:

"Paragraph 4.0:

...The treated wastewater will be used for ash handling dust suppression, green belt development and remaining will be discharged to Tapi Estuary after meeting the norms as per standards prribed….

A. Specific Conditions:

(viii) An effort shall be made not to discharge any treated wastewater outside the premises and adopt 'Zero' effluent discharge. An effort shall also be made to recycle and reuse the maximum treated wastewater in the process itself to reduce quantity of water consumption and effluent discharge into Tapi Estuary. Only excess treated wastewater after meeting the norms of Gujarat Pollution Control Board or as mentioned in E(P) Act,

whichever are more stringent, shall be discharged to Tapi Estuary through RCC Pucca Channels."

44. The EC conditions cited above indicate that MoEFCC has allowed the Answering Respondent to discharge treated effluent/wastewater into Tapi Estuary. Best possible efforts are being made by the Answering Respondent to recycle and reuse maximum treated wastewater to reduce not just the quantity of water being consumed from other sources but, to also reduce the amount of treated effluent being discharged into Tapi Estuary. The treated effluent water is being re-utilized in slag quenching, water sprinkling on roads in the Plant, in material handling areas to control fugitive dust emission, for gardening and other similar usages. Thereafter, only the excess treated wastewater is being discharged into Tapi Estuary as per the permitted norms.

True copies of ECs dated 21.09.2006, 29.05.2008, 29.05.2008 and 05.07.2010, issued by MoEFCC are annexed herewith as **ANNEXURE R-5/4 (Colly.).**

45. It is submitted that the Answering Respondent was granted the EC dated 09.03.2016 for replacement of existing units and addition of various units at the Plant. This EC required the Answering Respondent to ensure zero discharge of industrial effluents from the Plant. However, the said project could not be implemented due to financial constraints and the then ongoing litigation before the Hon'ble NCLT. Therefore, due to the circumstances mentioned above and reasons beyond the control of the Answering Respondent, the aforesaid project was not implemented and hence the question of compliance of conditions or the possibility of their violation does not arise. True copy of EC dated 09.03.2016 issued by MoEFCC is annexed herewith as **ANNEXURE R-5/5.**

46. It is further submitted that with the change in the management of the Plant, the Answering Respondent is now planning to implement the parts of the projects mentioned in the EC dated 09.03.2016. For this purpose, new EC application was submitted to MoEFCC, and EC was granted on 02.03.2022. As per the commitment given to MoEFCC and in compliance with the condition imposed by them, ZLD scheme for the entire complex will be implemented by March, 2023.

47. In respect of the EC dated 28.07.2010, it is humbly submitted that the previous owner could not implement the project approved therein including coke oven plant and ZLD due to certain constraints. Now, Answering Respondent intends to install the coke oven plant under the Impugned EC.

(ii) *Conditions prescribed in CCAs for different divisions*

47. It is submitted that GPCB has issued CCAs for different divisions of the Answering Respondent. The relevant condition for effluent discharge in the CCA for HRC division dated 07.04.2020 (renewed on 01.04.2021) reads as:

> *"3.7. The Final treated effluent conforming to the above standards shall be discharged into Estuary Zone of river Tapi through closed pipe through one outlet only."*

48. The relevant conditions for effluent discharge in the CCA for Plate Mill Division dated 07.04.2020 (renewed on 25.03.2021) read as:

> *"2...*
> *Subject to specific condition:*
> *1. Unit shall maintain zero discharge of wastewater. The evaporator shall be adequate to maintain zero liquid discharge.*

….

3.6. The final treated effluent shall conform to the above standards shall be recycled/re-circulated to maximum extent & rest shall be discharged into Estuary Zone of river Tapi through closed pipeline."

49. It is submitted that the relevant condition for effluent discharge in the CCA for Power Division dated 19.08.2019 (renewed on 18.08.2021) reads as:

> *"3.8. The Final treated effluent conforming to the above standards shall be discharged into Estuary Zone of river Tapi through closed pipeline through one outlet only.*"

50. It is submitted that GPCB has prescribed two contradictory conditions regarding the discharge of treated effluents in the CCA for Plate Mill Division dated 07.04.2020. In order to rectify this, the Answering Respondent submitted a letter dated 29.07.2020 to GPCB requesting to correct this discrepancy in the conditions by removing condition no. 1. However, no clarification or response has yet been received from GPCB in this regard. True copy of the letter dated 29.07.2020 addressed by the Answering Respondent to the GPCB is annexed herewith as **ANNEXURE R-5/6.**

51. With respect to the other CCAs mentioned above, it is submitted that the Answering Respondent has been permitted by GPCB to discharge treated effluents into Tapi Estuary, provided that such discharges conform to the standards prescribed by GPCB. A bare perusal of these conditions indicates that the Answering Respondent has been discharging treated effluents into Tapi Estuary in compliance with the terms and conditions prescribed by GPCB.

True copies of CCAs dated 07.04.2020 (renewed on 01.04.2021), 07.04.2020 (renewed on 25.03.2021) and 19.08.2019 (renewed on 18.08.2021) are annexed herewith as **ANNEXURE R-5/7 (Colly.)**.

52. The Answering Respondent was granted CCA dated 20.05.2020 for its Conarc Division, which was renewed on 01.04.2021. This CCA requires the Company to ensure that treated wastewater is reused in the plant and utilized on its own land for gardening and plantation purposes and not discharged into the surrounding environment. It is submitted that the Answering Respondent is re-utilizing the treated wastewater in slag quenching, for water sprinkling on roads in the Plant, in material handling areas to control fugitive dust emission, for gardening purpose, etc. The effluent is not discharged into the surrounding environment from this division. True copy of the CCA dated 20.05.2020 (recently renewed on 01.04.2021) is annexed herewith as **ANNEXURE R-5/8.**

53. It is submitted that GPCB granted CCA to the Pipe Mill Division on 07.04.2020, which was recently renewed on 25.03.2021. The CCA requires the Company to ensure that final treated effluent is recycled/reused within the premises and no effluents are discharged into the environment. It is submitted that this division is fully complying with this condition and no effluent is being discharged outside the premises of this division. True copy of the CCA dated 07.04.2020 (recently renewed on 25.03.2021) is annexed herewith as **ANNEXURE R-5/9.**

54. It is submitted that GPCB granted CTE dated 09.08.2011 to the Answering Respondent for expansion of the Plant by installation of 1.2 MTPA coke oven plant. It mandates ZLD and that no wastewater be discharged into the surrounding environment. However, it is submitted that this project could not be established by the Answering Respondent due to financial constraints and the then ongoing litigation before the Hon'ble NCLT. Hence, the allegation of any violation of this condition

does not arise. A true copy of CTE dated 09.08.2011 is annexed herewith as **ANNEXURE R-5/10.**

55. The conditions prescribed in the consents and authorisations by GPCB and MoEFCC for different divisions of the Answering Respondent have been summarised below:

Name of the division / project	**Discharge condition in the EC issued by MoEFCC**	**Discharge condition in the GPCB consent document**
HRC Division	EC dated 29.05.2008 allows the discharge but requires efforts to be made to reduce the quantity of water consumption and effluent discharged into river Tapi.	CCA dated 07.04.2020 (recently renewed on 01.04.2021) allows final treated effluents to be discharged into Tapi Estuary.
Plate Mill Division	EC dated 29.05.2008 allows the discharge but requires efforts to be made to reduce effluent discharge into river Tapi.	CCA dated 07.04.2020 (recently renewed on 25.03.2021) allows discharge of final treated effluents into Tapi Estuary. CCA mentions contradictory conditions related to effluents discharge. The Answering Respondent has submitted a letter dated 29.07.2020 to

		GPCB requesting to correct this discrepancy.
Power Division	EC dated 21.09.2006 allows balance treated effluents to be discharged into Tapi Estuary.	CCA dated 19.08.2019 (renewed on 18.08.2021) allows final treated effluents to be discharged into Tapi Estuary.
Conarc	EC dated 05.07.2010 allows balance treated effluents to be discharged into Tapi Estuary.	CCA dated 20.05.2020 (renewed on 01.04.2021) provides that there shall be no discharge of treated effluents into the surrounding environment. To ensure compliance the Answering Respondent is re-utilizing the treated wastewater in slag quenching, for water sprinkling on roads in the Plant, in material handling areas to control fugitive dust emission, for gardening purpose, etc. The effluent is not discharged into the surrounding environment.
Replacement and addition of various processes at the Plant	EC dated 09.03.2016 was obtained, but the project was not implemented due to financial constraints	CTE-Amendment dated 15.02.2016 was obtained, but CCA was not taken as the project was not

	and the then ongoing litigation before the Hon'ble NCLT. The EC dated 02.03.2022, recently obtained to implement a part of this project requires the Answering Respondent to ensure ZLD by March, 2023.	implemented after taking the 2016 EC. True copy of CTE-Amendment dated 15.02.2016 has been annexed herewith as **ANNEXURE R-5/11.**
Expansion of the Plant by installation of 1.2 MTPA coke oven plant	EC dated 28.07.2010 was obtained for the project, but it could not be implemented by the previous owner. Answering Respondent has now received Impugned EC to install this unit.	CTE dated 09.08.2011 mandates ZLD and that no wastewater shall be discharged into surrounding environment. This project could not be established by the Answering Respondent due to financial constraints and the then ongoing litigation before the Hon'ble NCLT.

56. It is therefore most respectfully reiterated that the Answering Respondent is discharging its treated industrial effluents into Tapi Estuary only through approved outlets in accordance with the conditions prescribed by MoEFCC and GPCB.

(iii) MoEFCC compliance certificate dated 07.01.2022

57. In the letter dated 07.01.2022, IRO, Gandhinagar submitted its remarks about status of compliance with conditions prescribed in EC dated 05.07.2010 and 09.03.2016. In the said letter, it is mentioned that IRO, Bhopal had submitted a compliance report dated 01.04.2021 noting a few 'partly complied' and 'not complied' conditions. Answering Respondent submitted an action taken cum compliance report on 26.11.2021 and requested for a site visit to verify the updated status of implementation of the said conditions. The site visit was done by IRO, Gandhinagar on 17.12.2021 and 18.12.2021, and Answering Respondent submitted an updated compliance report dated 20.12.2021. Basis this, IRO, Gandhinagar submitted an addendum to earlier compliance report noting only two conditions as 'not complied' and two as 'partly complied'.

58. It was noted that Answering Respondent had not complied with ZLD condition as per EC dated 09.03.2016. IRO noted that the said EC could not be implemented by previous owner and now the Answering Respondent is in the process of constructing mechanism to achieve ZLD. It has taken various initiatives to complete this project in two phases by December, 2023 (this timeline was subsequently revised to March, 2023). The other condition noted as 'not complied' was regarding failure of Answering Respondent to upload the status of compliance with EC conditions and monitoring data on its website. It was clarified that Answering Respondent has recently taken over the Plant and it is in process of preparing a website, which will be ready by January, 2021. Answering Respondent has complied with this condition and already uploaded the details on its website.

59. It is further submitted that two conditions noted for being 'partly complied' were regarding lapses by previous owner in providing details of notice published for grant of EC dated 05.07.2010 in two newspapers; and submission of certain plans and reports to authorities like CSR activities (Answering Respondent clarified that these

activities were affected due to proceedings before Hon'ble NCLT till 2019).

60. It is respectfully submitted that out of these four conditions, only one condition is currently pending for full compliance, i.e., ZLD, and all other conditions have been fully complied with. The construction work required for ZLD is already underway and will be completed by March, 2023 in compliance with the condition prescribed in the EC dated 02.03.2022.

61. It is pertinent to note that Appellant is attempting to mislead this Hon'ble Tribunal by falsely alleging that MoEFCC had noted non-compliance by Answering Respondent on aspects such as PM 10 and 2.5 standards were exceeding the prescribed parameters at Plant; production capacities mentioned in CTO and EC were not in consonance with each other; BOD/COD value in water quality reports were not in consonance with other reported parameters; etc. However, none of these aspects was mentioned by the MoEFCC in its communication dated 07.01.2022 to the Answering Respondent.

62. It is submitted that Answering Respondent had also furnished the compliance status and action plan (as on 01.12.2021) to MoEFCC on the specific Corporate Responsibility for Environmental Protection ("**CREP**") requirements relevant for Answering Respondent. This plan included status of implementation of measures relevant for reducing fugitive emissions, utilisation of slag, installation of online stack monitoring and online ambient air quality monitoring stations at the Plant, etc.

True copy of this action plan is annexed herewith as **ANNEXURE R-5/12**.

(D) <u>ANSWERING RESPONDENT'S PLANT IS OPERATING IN COMPLIANCE WITH APPLICABLE LAW</u>

63. It is most respectfully reiterated that the Answering Respondent is an environmentally conscious company and that it has undertaken every possible step to operate in harmony with the environment. The Plant has been operating in compliance with the relevant environmental and regulatory requirements.

64. It is submitted that the Answering Respondent regularly monitors and analyses the ambient air quality, stack emission and industrial effluents through third-party laboratories approved by NABL and MoEFCC. The results of such reports conform with the GPCB stipulated norms. These reports are also being regularly submitted to GPCB. True copies of the analysis reports and marine monitoring report for April, May and November, 2022 are annexed herewith as **ANNEXURE R-5/13 (Colly.).**

65. It is submitted that the Answering Respondent regularly submits its EC compliance report to MoEFCC and annual environment statements and environmental audit reports (prepared by GPCB registered environmental auditor as required under the GPCB Environment Audit Scheme, 2015) to GPCB. It is respectfully submitted that these statements and audit reports have mentioned that the Plant is operating in compliance with GPCB prescribed standards.

True copies of the EC compliance report (for the period April to September, 2022), environment statements (for Plate Mill division) and environmental audit report (for five divisions) for FY 2021-22 are annexed herewith as **ANNEXURE R-5/14 (Colly.).**

66. It is further submitted that the Answering Respondent has also installed an Online Continuous Monitoring System for emissions and effluents discharged from the Plant. This system monitors Plant's emissions and effluent discharge. The data from these systems is regularly provided to CPCB. This system has also not shown any non-compliance with the prescribed standards.

67. The show-cause notice and notice of directions received from GPCB after 16.01.2020 were disclosed in the Final EIA Report along with compliance status, action plan implemented, and further observations received from GPCB. EAC has made its decision of recommending the EC for Proposed Project based on consideration of all these previous observations and notices received from GPCB. It is respectfully submitted that Answering Respondent has carried out rectifications as per GPCB observations and is submitting compliance report along with time bound action plan to GPCB. It is also carrying out certain long-term changes as per these observations which will be completed by December, 2023. In view of its responses and actions, GPCB has deemed it fit to not proceed further on these notices and is regularly following up on the implementation status. Accordingly, EAC has made an informed decision of recommending the Proposed Project for EC taking all these aspects into consideration.

(E) APPELLANT HAS NOT APPROACHED THIS HON'BLE TRIBUNAL WITH CLEAN HANDS

68. It is most respectfully submitted that the Appellant has not approached this Hon'ble Tribunal with clean hands. The Appellant has filed this Appeal as an after-thought after earlier applications or petitions filed before Hon'ble High Court of Gujarat and this Hon'ble Tribunal failed to provide any adverse observations or relief against the Answering Respondent.

69. It is most relevant to note that an application titled *Roshni B. Patel v. Union of India & Ors. (OA No. 27 of 2020*) was filed before this Hon'ble Tribunal against the Answering Respondent (Respondent No. 8 therein) amongst other parties, raising environmental issues related to illegal utilisation, disposal and dumping of hazardous waste such as ETP sludge, chemical sludge, used oil, granulated slag, iron slag, lime

waste, heavy metal bearing waste of Corex plant slag and fly ash by the Answering Respondent on an adjacent land and on another area (that as per the applicant falls within CRZ – 1B as per the CRZ Notification, 2019). It was alleged that these activities are polluting the inter-tidal area of village Hazira, coastal land, sea, ground water and damaging the surrounding environment, which is also the fishing area of traditional fishermen and is affecting their livelihood.

70. The aforesaid application, after detailed hearing, was disposed of by this Hon'ble Tribunal *vide* order dated 21.03.2022. The Hon'ble Tribunal while disposing this application observed that the area in question does not fall under CRZ-1B; and Answering Respondent did not indulge in any illegal activities or violation of environmental norms including illegal utilisation of fly ash and slag.

True copy of the Hon'ble NGT order dated 21.03.2022 is annexed herewith as **ANNEXURE R-5/15**.

71. It is also pertinent to note that, being aggrieved by the said order dated 21.03.2022, an appeal was filed before the Hon'ble Supreme Court being Civil Appeal No. 4898 of 2022. The Hon'ble Supreme Court did not find any infirmity with the findings of this Hon'ble Tribunal and dismissed the appeal *vide* its order dated 05.08.2022. True copy of the order dated 05.08.2022, passed by the Hon'ble Supreme Court is annexed herewith as **ANNEXURE R-5/16**.

72. It is further submitted that a Public Interest Litigation has also been filed against the Answering Respondent before Hon'ble High Court of Gujarat titled *Roshni B. Patel v. State of Gujarat & Ors.* [Writ Petition (P.I.L.) No. 14 of 2022], which raises environmental issues related to discharge of wastewater into Tapi Estuary, which as per the petitioner in this case, is illegal and causing damage to local ecology and community. This Public Interest Litigation is currently *sub-judice* before the Hon'ble High Court of Gujarat.

73. It is pertinent to note that the present Appeal also raises issues related to discharge of wastewater, disposal of hazardous waste (iron slag, solid waste) in open land, coastal areas and sea, illegal reclamation of coastal land, among others. These issues either have been categorically rejected by this Hon'ble Tribunal and Hon'ble Supreme Court without any relief to the applicant or are currently pending before the Hon'ble Gujarat High Court.

74. It is most respectfully submitted that having failed to espouse any case against the Answering Respondent earlier, the present frivolous Appeal has been filed before this Hon'ble Tribunal on similar issues. In this Appeal as well, issues which have been disposed of by this Hon'ble Tribunal and the Hon'ble Supreme Court or are still pending before the Hon'ble High Court of Gujarat are being agitated. It therefore appears that there is a *malafide* intention and ulterior motive to harass the Answering Respondent and create unnecessary hurdles for its projects, which would promote sustainable development and well-being for the local communities through job-creation and improvement in the quality of their lives through the adoption of best environmental practices.

75. It is submitted that by filing cases like the present Appeal, PIL filed before the Hon'ble Gujarat High Court and the application already disposed of by the NGT and reiterated by the Hon'ble Supreme Court, the Appellant is indulging in the practice of forum shopping where it is just trying to seek any possible adverse order either from the courts or from this Hon'ble Tribunal on similar issues. It is a well-thought strategy of the Appellant, possibly at the behest of someone to stall the projects of the Answering Respondent at a time when the pandemic is thankfully ending and after two years of difficult circumstances the Answering Respondent is trying to carry out its operations in an efficient and compliant manner. This becomes pertinent especially considering that the Answering Respondent has taken control of the operations only since 16.12.2019, a few months after which the

pandemic struck in March, 2020 making everything go haywire across the world.

Without prejudice to the aforesaid Preliminary Submissions/ Objections, the Answering Respondent submits its Para-wise Reply to the present Appeal, which is in the alternate and independent of each other.

PARA-WISE REPLY TO THE PRESENT APPEAL

76. It is humbly submitted that nothing contained in all paragraphs of the present Appeal ought to be treated as admitted for the want of specific denial.

77. The contents of Para 1 to 2 merit no response.

78. The contents of Para 3 are denied except to the extent that they form a part of record. The Answering Respondent had not constructed any facility for which the EC was sought prior to the grant of Impugned EC by MoEFCC. The Proposed Project contains debottlenecking activities for existing facilities, which are being constructed in the existing unit or adjacent to existing units. Hence, it can't be visualised properly through Google image.

79. The contents of Para 3(i) are denied except to the extent that they form a part of record, as Answering Respondent is undertaking its operations in compliance with the applicable regulatory framework as well as the terms and conditions prescribed by MoEFCC and GPCB.

80. The contents of Para 3(ii) are denied except to the extent that they form a part of the record, as the Answering Respondent has obtained all its

environmental clearances and consents in compliance with the applicable law and after following the prescribed procedure.

81. The contents of Para 3(iii) to 3(viii) merit no response.

82. The contents of Para 3(ix) are denied, except to the extent that they form a part of record, as Answering Respondent is operating in compliance with applicable law as well as the terms and conditions prescribed by GPCB and MoEFCC. The observations received from GPCB were duly addressed and rectified, followed by submission of compliance report, implementation status and action plan to address these aspects. Being satisfied with these responses, GPCB has deemed it fit not to proceed any further on these aspects.

83. The contents of Para 3(x) and 3(xi) merit no response.

84. The contents of Para 3 (xii) are denied, except to the extent that they form a part of record, as the Answering Respondent has prepared the EIA Report in compliance with the TORs issued to it. All relevant aspects prescribed under the EIA Notification and TORs were addressed in the EIA Report. EAC and MoEFCC duly considered the EIA Report before granting Impugned EC for the Proposed Project. It is further submitted that the Answering Respondent is discharging treated wastewater into Tapi Estuary in accordance with the applicable laws and approvals granted by MoEFCC and GPCB. The ECs and CCAs for different divisions, as described above, permit the Answering Respondent to discharge specified quantity of treated effluents into Tapi Estuary. The discharge of treated effluent is not causing any water pollution in the region. It is further reiterated that the Answering Respondent will ensure ZLD at the Plant by March, 2023.

85. The contents of Para 3(xiii) are denied, except to the extent that they form a part of record, as the Answering Respondent has addressed all concerns raised at the public hearing. The specific concerns mentioned by the Appellant have also been addressed during and after public

hearing as well as in the Final EIA Report. The public hearing proceedings dated 21.09.2021, responses to written representations and the Final EIA Report address all these concerns.

86. The contents of Para 3(xiv) are denied, except to the extent that they form a part of record. It is humbly submitted that the Appellant has furnished the report titled "Report on Third Party Inspection at Hajira, Surat" dated 08 September, 2021 prepared by Ahmedabad Textile Industry's Research Association. While the association is a registered environmental auditor, it is most respectfully submitted that there are various grounds for questioning the credibility of the report, some of which are mentioned below:

a. On page 2 of the aforesaid report, it has been mentioned that the samples were collected from the locations where the discharges from the Plant were suspected. In other words, it appears that there is uncertainty regarding the effluent discharges from the locations of the Plant which have been mentioned in the report and from where the samples have supposedly been collected. The relevant paragraph reads as:

"ATIRA team visited the site, on August 02, 2021 and collected samples of wastewater coming out from the steel complex of AM/NS point of discharge in the Tapi river, and three other natural water bodies/drains near the steel complex where discharges from the steel plant were suspected."

b. It is pertinent to note that three samples (Samples – 2, 3 and 4) for the report have been collected from sources which are flowing outside the Plant. The Answering Respondent has no discharge points leading to these sources. The report makes the following observations regarding Samples – 2, 3 and 4:

"3. Sample-2 and Sample-3 were collected from two different locations of a natural drain flowing outside to the

premise of M/s AM/NS India. This drain also meets the Tapi river near the confluence point of sea.

4. Fourth Sample (Sample-4) was collected from an unknown water source which was observed flowing out across the boundary wall of the steel plant near north-west of the steel plant complex. This sample was observed to be highly contaminated with oil."

It is pertinent to note that if the sample is collected from an unknown water source, as cited above and if the source is not clear, there is a strong possibility that such sources could have been polluted due to the discharges from other sources including other industries operating in the area. Hence, it is mischievous and unfair to attribute such pollution to the Answering Respondent.

c. The report clearly mentions that it is only for the technical information of the client and it cannot be used for advertisement, promotion, publicity or litigation. This clearly shows that the report is being misused besides also raising doubts on the purpose/mandate for the preparation of this report.

d. The report is based on the samples collected from four points, the locations of which have not been confirmed by the Appellant and it has been mentioned by the Appellant that these points are 'suspected' to be discharging untreated effluents from the Plant. Hence, there is a need for a detailed investigation by a recognised laboratory in compliance with the statutorily prescribed sampling procedure, where the samples are actually collected from the discharge points of the Plant.

e. The process mandated by law was not followed in the collection of these four samples. As per Section 21 of the Water Act, even

State Pollution Control Boards ("**SPCBs**") are required to follow the prescribed procedure for collection of samples of effluents discharged from an industry. Section 21 requires SPCBs to *inter alia* provide one part of the sample to the industry in question as well, to ensure transparency in the collection process and to enable the industry to independently verify the findings from these samples. Although the procedure under this provision applies to SPCBs, the intent of the procedure squarely applies to this case as well simply to ensure transparency in the sample collection process and findings of the report. In this case, however, these samples were not shared with the Answering Respondent, hence it is not possible to independently verify the findings mentioned in this report.

87. The contents of Para 3(xv) are denied, except to the extent that they form a part of record, as Answering Respondent has ensured compliance with all ECs issued to it. It is humbly submitted that the previous owner could not implement the projects approved under the EC dated 28.07.2010. Answering Respondent seeks to install coke oven unit as per the Impugned EC. Further, in relation to the addendum dated 07.01.2022, it is humbly submitted that the Appellant is attempting to mislead this Hon'ble Tribunal by falsely alleging that MoEFCC had noted non-compliance by Answering Respondent on aspects such as PM 10 and 2.5 standards were exceeding the prescribed parameters at Plant; production capacities mentioned in CTO and EC were not in consonance with each other; BOD/COD value in water quality reports are not in consonance with other reported parameters; etc. However, none of these aspects was mentioned by the MoEFCC in its communication dated 07.01.2022 to the Answering Respondent. IRO, Gandhinagar has noted only two conditions as 'non-complied' and two conditions as 'partly complied', of which only one condition currently remains to be fully complied, i.e., ZLD for the entire Plant premises that will be ensured by March, 2023.

88. The contents of Para 3(xvi) to 3(xviii) are denied, except to the extent that they form a part of record. It is humbly submitted that concerns raised in written representations were duly addressed by the Answering Respondent by providing specific responses to these concerns and also by incorporating the relevant aspects in the Final EIA Report. The concerns raised by public at public consultation process and responses provided by Answering Respondent to such concerns were also considered by the EAC while appraising the Proposed Project. Further, IRO, Gandhinagar had also conducted a site visit to the Plant for examining these concerns and did not observe any such violations.

89. The contents of Para 4 to 6 merit no response.

PARA-WISE REPLY TO THE GROUNDS

90. The contents of Ground A are denied in toto. The Answering Respondent had not constructed any facility for which the EC was sought prior to the grant of Impugned EC by MoEFCC. The Proposed Project contains debottlenecking activities for existing facilities, which are being constructed in the existing unit or adjacent to existing units. Hence, it can't be visualised properly through Google image. GPCB had also inspected the Plant pursuant to application for Consent to Establish filed by Answering Respondent. This is not a case of *ex-post facto* EC.

91. The contents of Grounds B to E are denied in toto. It is submitted that EAC recommended EC for the Proposed Project after duly examining all relevant considerations. As described above, the decision was taken based on due application of mind after EAC was satisfied with the information and clarifications provided by Answering Respondent. It is further submitted that the Appellant is deliberately misleading this Hon'ble Tribunal by falsely alleging that MoEFCC had observed 13

conditions as 'partly complied' for EC dated 09.03.2016 and 12 conditions as 'partly complied' for 2010 EC. As mentioned above, ECs dated 09.03.2016 and 28.07.2010 were not implemented and hence the case their non-compliance does not arise. Moreover, it is submitted that only one condition remains to be fully complied with, i.e., ZLD for the entire Plant premises. All the other conditions have been complied with.

92. The contents of Ground F are denied in toto, as all concerns raised at the time of public hearing were duly addressed by the Answering Respondent. As stated earlier, the written responses were also provided to the representations received from public. The major concerns raised during the public consultation process were duly noted and incorporated in the Final EIA Report. EAC had also examined these concerns and responses furnished by Answering Respondent to address them. Site visit was also conducted by IRO, Gandhinagar to the Plant to examine these concerns. EAC recommended the Proposed Project for EC after being satisfied with all these considerations.

In view of the aforesaid submissions, the Answering Respondent most respectfully prays that this Hon'ble Tribunal may be pleased to dismiss this Appeal and impose heavy costs on the Appellant.

RESPONDENT NO. 5

FILED THROUGH

NAWNEET VIBHAW
SHARDUL AMARCHAND MANGALDAS AND CO.
ADVOCATES FOR THE RESPONDENT NO. 5
216, OKHLA INDUSTRIAL ESTATE, PHASE III
NEW DELHI – 110 020
E-MAIL: nawneet.vibhaw@amsshardul.com, M.: 8800491477

DATE: 14.01.2023

PLACE: NEW DELHI

BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN BENCH, PUNE

APPEAL NO. 27 OF 2022 (WZ)

IN THE MATTER OF:

Thakorbhai Vallabhbhai Khalasi ...Appellant

Versus

Ministry of Environment, Forest and Climate Change and Ors.

...Respondents

AFFIDAVIT

I, Nivedita Saxena, D/o Mukesh Kumar Saxena, aged 29 years, authorised signatory of Respondent No. 5 having office at 7th Floor, Raheja Towers, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra, 400051 presently at Mumbai, do hereby solemnly affirm and declare as under:

1. That I am fully acquainted with the facts and circumstances of the matter and am duly authorized to swear this affidavit on behalf of Respondent No. 5.
2. That the contents of the accompanying Reply filed on behalf of Respondent No. 5 are true and correct to the best of my knowledge and have been drafted by the counsel on my instructions and nothing material has been concealed therefrom.
3. That the Annexures annexed with the accompanying Reply are either true copies of their original or true printouts.
4. I am advised to state that the conditions of Section 65B of the Indian Evidence Act, 1872 are complied with, in filing the accompanying Reply. I state that I have taken printout of the relevant page and information from the World Wide Web (Internet) as downloaded by me on my computer system and no manipulations have been done. I state that printout(s) were taken using a computer, which was operating properly and under my lawful control. I state that the said computer is

being regularly used to send e-mails and electronic communication in the ordinary course of its use.

NOTARY NAME: R. B. KEWAT AREA - MUMBAI MAHARASHTRA Regd. No. 7109 EXPIRY DATE 5-11-2023 GOVT. OF INDIA

ARCELORMITTAL NIPPON STEEL INDIA LIMITED MUMBAI

DEPONENT

Verification:

I, the abovenamed deponent, do hereby verify that all the facts mentioned in the affidavit are true to my knowledge and that no part thereof is false and nothing material has been concealed therefrom.

Verified at Mumbai on this 14th day of January, 2023.

ARCELORMITTAL NIPPON STEEL INDIA LIMITED MUMBAI

DEPONENT

NOTARY NAME: R. B. KEWAT AREA - MUMBAI MAHARASHTRA Regd. No. 7109 EXPIRY DATE 5-11-2023 GOVT. OF INDIA

BEFORE ME

RAMBHAWAN B. KEWAT
Regd. No. 7109/11/2023 B.Com., LL.B.
ADVOCATE AND NOTARY
16-A, Jimmy Bldg., 1st Floor,
Room No. 10, Parel Station Road.
Parel (E), Mumbai - 400 012.

NOTED & REGISTERED
Sr. No. 4998 Page No. 87
Date: 14/1/2023

NOTARY GOVT. OF INDIA

SEEN ORIGINAL AUTHORITY LETTER ~~POWER OF ATTORNEY~~ / BOARD ~~RESOLUTION~~
DATED 5/8/2022 IN FAVOUR OF
MR. NIVEDITA SAXENA

NOTARIAL NOTARIAL NOTARIAL 5-11-2023 NOTARIAL NOTARIAL

ENVIRONMENTAL CLEARANCE

PARIVESH
(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Executive Director Project
M/S. AMNS INDIA LIMITED
survey no.353,354,179/P,262P,263P,310P,550P,561P,568P,569P,602P,village.hazira,taluka.choryasi,district.surat,,Surat,Gujarat-394270

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/GJ/IND/28742/2014 dated 05 Feb 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22A008GJ153411**
2.	**File No.**	J-11011/44/2004-IA II(I)
3.	**Project Type**	Modernization
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	3(a) Metallurgical industries (ferrous & non ferrous)
6.	**Name of Project**	Replacement of DRI by Blast Furnace (Hot Metal) and Electric Arc Furnace by Basic Oxygen Furnace (EA
7.	**Name of Company/Organization**	M/S. AMNS INDIA LIMITED
8.	**Location of Project**	Gujarat
9.	**TOR Date**	08 Feb 2021

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 02/03/2022

(e-signed)
Sundar Ramanathan
Scientist E
IA - (Industrial Projects - 1 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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This refers to your proposal no. **IA/GJ/IND/28742/2014 dated 05/02/2022** submitted through Parivesh Portal seeking grant of **Environment Clearance (EC) under EIA Notification, 2006** for the project mentioned above.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA notification, 2006 and appraised at Central level.

3. Accordingly, the above-mentioned proposal has been considered by the **Re-constituted EAC (Industry-I)** in its **53rd meeting held on 10-11th February, 2022**. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at https://parivesh.nic.in/.

4. The details of the proposal are as per the EIA report submitted by the proponent. The salient features of the expansion proposal as presented during the above-mentioned meeting of EAC (Industry 1) are as under: -

S.No.	Particulars	Details
a.	Terms of Reference for undertaking EIA study	08/02/2021
b.	Period of baseline data collection	Baseline monitoring data for the period from 1st October 2020 to 31st December 2020 and 23rd November 2021 to 25th December 2021 (AAQ).
c.	Date of Public Consultation	21/09/2021.
d.	Action plan to address the PH issues	In addition to EMP budget, an amount of Rs. 21 Crores (Capital) and Rs. 3 Crores (Recurring) have been earmarked to address the issues raised during public hearing. **PH Action plan is enclosed as Annexure-I**
e.	Location of the project	Hazira Notified Industrial Area at Village Hazira, Taluka Choryasi, District Surat, Gujarat.
f.	Latitude and Longitude of the project site	**Point / Latitude / Longitude** A / 21° 5'48.99"N / 72°39'24.95"E B / 21° 6'10.39"N / 72°37'40.26"E C / 21° 7'9.01"N / 72°37'50.26"E D / 21° 7'33.55"N / 72°38'41.73"E E / 21° 8'7.52"N / 72°39'17.79"E F / 21° 7'2.17"N / 72°39'18.42"E G / 21° 6'33.77"N / 72°39'11.85"E H / 21° 6'33.35"N / 72°39'35.31"E
g.	Total land	770 ha [Private Land]
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The modification is proposed in existing project area of 770 ha. Total land is under the possession of the company. No additional land is required for proposed expansion.
i.	Existence of habitation & involvement of R&R, if any	No R&R is involved.

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S.No.	Particulars	Details
j.	Elevation of the project site	**6** m maximum above mean sea level
k.	Involvement of Forest land if any.	Nil
l.	Water body exists within the project site as well as study area	**Project site:** Nil **Study area** **Water body** / **Distance** / **Direction** Tapi Estuary / 0.5 km / East Arabian sea / 2 km / South Hazira pond / 2.2 km / South Suvali pond / 3.3 km / NNW Mora pond / 2.7 km / North Junagam Pond / 1.4 km / West
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil **List of Reserved and protected forests:** ▪ Hazira Reserve Forest 1.72 SSW ▪ Open Forest near Dumas Village 5.42 SE ▪ Open Forest near Vasava Village 6.40 NNW
n.	Existence of sand dunes, mangroves mud flats	The project premises were identified with the help of GPS data derived from satellite image and No Mangrove species were found to be present within the project premises. The presence of mangrove species has been observed in areas outside the AMNS premises, within the study area and far away from project site. The species Avicennia marina is found to be dominant in these areas
o.	Project cost	Existing Investment – INR 35000 Crores Proposed Investment - INR 6413.13 Crores
p.	EMP cost	The capital cost for environmental protection measures is proposed as Rs 1687.26 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 378.28 Crores.
q.	Employment opportunity	1770 Nos.
r.	Water and Power requirement	Water: Existing - 145,839.00 m^3/day, Proposed - 7,489 m^3/day Power – Existing – 1038 MW, Proposed – 125 MW

Unit configuration and capacity:

Sr. No	Plant / Facility	As per EC dated 09.03.2016 (A)		Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Config.	Capacity	Config.	Capacity	Config.	Capacity	
1	HBI Plant (DRI Mod I to VI)	Mod I-IV: 4.0	7.83	-	-	Mod I-IV: 4.0	7.83	*Earlier planning was to remove HBI Modules (1 to

Sr. No	Plant / Facility	As per EC dated 09.03.2016 (A)		Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Config.	Capacity	Config.	Capacity	Config.	Capacity	
	(in MTPA)	Mod:V - 1.98 Mod VI: 1.85	(- 4.0* =3.83)			Mod:V - 1.98 Mod VI: 1.85		4) totalling 4 MTPA and replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity. CTO has been sanctioned for 7.83 MTPA.
2	Blast Furnace (BF) (in MTPA)	1 x 2.04 (2200 m3) 1 x 3.0	5.04	-	-	1 x 2.04	2.04	1 x 3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT, now dropped.
3	Sinter Plant	1x 1.48 (1 x 120 m2) 2 x 3.5 (~ 325 m2 each)	8.48	-	-	1x 1.48 (1 x 120 m2)	1.48	7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. Now, will establish the 7.0 MTPA Plant through Upstream Expansion from 9.6 to 15.6 MTPA - approved vide 2016 EC. (It will comprise of 02 number plants).
4	Coke Oven (Recovery Type)	1 x 1.20 1 x 1.35	2.55	-	-	1 x 1.35	1.35	Under implementation 1.2 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. 2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed.
5	Air Separation Plant (Nm3/Hr)	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen) 1 X 2200 TPD	424,744	-	-	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	424,744	64200 Nm^3/hr plant will be established as per 2016 EC

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Sr. No	Plant / Facility	As per EC dated 09.03.2016 (A)		Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Config.	Capacity	Config.	Capacity	Config.	Capacity	
6	SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	4.6*	-	-	4 x 150 MT Heat size	4.6	*Earlier planning was to remove 4.6 MTPA EAF -4 nos. and replacing with BOF-3 nos. in its place but that could not be implemented due to fund constraints and legal cases at the NCLT. Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original capacity. CTO has been sanctioned for 4.6 MTPA.
7	SMS-2	4 x 200 MT Heat size	5.0	-	-	4 x 200 MT Heat size	5.0	
8	Corex Plant	2 x 0.85	1.7	-	-	2 x 0.85	1.7	
9	Lime Plant (Lime/Dolime	1 x 0.45 (4 x 300 TPD) 1 x 0.48 (3 x 500 TPD)	0.93	1 x 0.27* (1 x 200 + 1x 500 TPD)	0.27	1 x 0.45 1 x 0.48 1 x 0.27*	1.2	
10	Plate Mill	1 x 1.5	1.5	-	-	1 x 1.5	1.5	
11	CSP and HRC	1 x 3.5	3.5*	-	-	1 x 3.5 1 x 4.5#	8.0	* 3.5 MTPA approved vide 05.07.2010 EC # 4.5 MTPA Approved vide 29-05-2008 EC Total 8.0 implemented, but inadvertently mentioned 3.5 MTPA only in 2016 EC
12	CRM	1 x 1.5	1.5	1 x 2.2 1 x 1.0	3.2	1 x 1.5 1 x 0.54* 1 x 2.2 1 x 1.0	5.24	CTO taken for additional 0.54 MTPA from GPCB.
13	**Pipe mill:**							
	H Saw Pipes (in MTPA)	1 x 0.15	0.15	-	-	1 x 0.15 1 x 0.15*	0.30	0.15 MTPA as per 2016 EC *CTO taken for additional 0.15 MTPA from GPCB. (0.15+0.15=0.30).
	L Saw Pipes (in MTPA)	1 x 0.33	0.33	-	-	1 x 0.33	0.33	
14	CPP (in MW)	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 1 X 48 MW	604	-	-	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW	556	

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Sr. No	Plant / Facility	As per EC dated 09.03.2016 (A)		Proposed Modification (B)		Final after Modification (A+B)		Remarks
		Config.	Capacity	Config.	Capacity	Config.	Capacity	
15	Waste Heat Recovery based Power Plant (in MW)	1 x 25 MW 1 x 20 MW	45	-	-	1 x 25 MW 1 x 20 MW	45	
16	Jetty (length in m)	456 m+ 734 m	1190 m	-	-	456 m + 734 m	1190 m	*734 and 456 meters capacity was sanctioned in 2006 EC. This was implemented although inadvertently mentioned 734 m only in 2016 EC and CTO also mentioned the same 734m length.

5. The Re-constituted EAC (Industry-I) in its 53rd meeting held on 10-11th February, 2022 based on information & clarifications provided by the project proponent and after detailed deliberations recommended the instant expansion proposal for grant of Environment Clearance under EIA Notification, 2006 subject to stipulation of specific and general conditions as detailed in the paragraph given below.

6. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1) hereby decided to grant Environment Clearance for instant proposal of **M/s. ArcelorMittal Nippon Steel India Limited (AMNS)** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions.

A. Specific conditions

i. The additional water requirement for the proposed modernization i.e., 7489 KLD water requirement for modification project shall be drawn from Tapi River.
ii. Green Belt shall be developed in 222.05 ha with tree density of 2500 trees per ha. (or 1000 trees per acre) all along the periphery of the project site by 31st December, 2022.
iii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
iv. Sinter cooler heat recovery system for the existing Sinter plant shall be implemented within 3 years from the date of issue of Environment clearance.
v. Dry Gas cleaning system shall be implemented for the existing Blast furnace within 5 years from the date of issue of Environment clearance.
vi. The Oil scum and oily waste from CRM shall be sent to registered recyclers for oil recovery and incineration.
vii. CEMS shall be connected to plant control room for process control to keep emissions under control. Interlocking of CEMS shall be in conformity with CPCB directions
viii. Hot Rolled Coil (HRC) production shall be done through hot charging minimum 65% and for billets hot charging shall be minimum 85%. Remaining shall be done through reheat furnace operating on natural gas/ Corex gas.
ix. Acid Recovery Plant (ARP) and acid fume scrubber in stack emission shall be less than 10 mg/Nm^3 HCl.
x. The Oil scum and oily waste from CRM shall be sent to Authorized recycler.
xi. CDQ shall be installed along with a modified wet quenching tower as a standby.

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xii. In SMS plant fume extraction system for all process equipment like converters, LRF shall be independent. Common Fume Extraction System (FES) shall be provided only for roof top emissions.

xiii. RO reject from BOD plant of Coke Oven shall not be used for slag quenching. Multi Effect Evaporator (MEE) shall be installed to handle RO reject and the MEE sludge shall be sent to TSDF.

xiv. PM emission from all stacks (existing and new) shall be less 30 mg/Nm^3.

xv. 100% solid waste generated shall be recycled/reused/sold. No dumping is permitted.

xvi. A wind barrier of 400 m shall be provided near Sikotar Mata Temple in Hazira Village.

xvii. Wind barrier at raw material handling yard shall be provided and loading and unloading station shall be closed.

xviii. Zero Liquid Discharge (ZLD) scheme for the entire complex shall be implemented by March, 2023.

xix. All plant roads shall be paved and industrial vacuum cleaners shall be provided to clean the roads regularly.

xx. All stock piles shall be constructed over impervious soil and garland drains/storm water drains with catch pits to trap run off material shall be constructed.

xxi. PP shall carryout extensive rainwater harvesting and recharge as per the action plan submitted in the EIA report.

xxii. Sulphur recovery and ammonia cracker shall be installed in Coke Oven Plant.

xxiii. The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

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iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
x. Land-based APC system shall be installed to control coke pushing emissions.
xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

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V. Energy Conservation measures

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

VI. Waste management

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

IX. Environment Management

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

X. Miscellaneous

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

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which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

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

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

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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

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

xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

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

7. This issues with the approval of the Competent Authority.

2/3/22

(Sundar Ramanathan)
Scientist 'E'

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Copy to:-

1. Secretary, Department of Environment, Government of Gujarat, Secretariat, Gandhinagar.
2. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, A Wing, 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector 10 A, Gandhinagar – 382010.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
5. Chairman, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
6. District Collector, Surat District, Gujarat.
7. Guard File/Record File/Monitoring File.
8. MoEF&CC Website.

2/3/22

(Sundar Ramanathan)
Scientist 'E'

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Annexure-I

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

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

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Sr. No	Project/ Program	Target / Remarks	Year wise Progress*		
			2022	2023	2024
1	Infrastructure development in nearby villages	Construction of community centre	--	Hazira Village	Damka Village
2		Installation of drinking water pipe line	Hazira Village	--	--
3		Road development	New Road construction Ganpati Temple to Hazira Village (approx. 6 km	Junagam internal road development	--
4		Installation of street light/ Solar lights	03 Villages (Hazira, Junagam) and road from Junagam to Suwali BeachSuwali and road from	03 Villages (Rajgari, Mora, Bhatlai)	02 Villages (Damka, Vansva)
5		Providing diesel generator (2 No-125 KVA)	Near Hazira main Water Sump & Matafaliya	Suwali Village	--
6		Mechanized vehicle for garbage lifting and transportation.	Hazira Village	--	--
7		Deepening & cleaning of pond	Damka Villages	Vansva Village	Bhatlai Village
8		Rain water harvesting project for school	03 Villages (Hazira, Junagam, Suwali)	03 Villages (Rajgari, Mora, Bhatlai)	02 Villages (Damka, and Vansva)

** Note – Total financial outlay for addressal of public hearing concerns – INR 21 Crores*

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F. No. J11011/44/2004-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
JorBagh Road, Aliganj
New Delhi – 110003

E-mail: r.sundar@nic.in
Tel: 011-24695304

Dated: 8th February, 2021

To

Shri Rajiv
Executive Director - Project
M/s. ArcelorMittal Nippon Steel India Limited
Hazira Industrial Area
Surat Hazira Road, Surat, Gujarat
E-mail: dr.anil.jain@amns.in

Snbject: Modification in Existing Plant by Installing Auxiliary Facilities without Increasing Plant Capacity by **M/s. ArcelorMittal Nippon Steel India Limited (Formerly Essar Steel India Limited)** located at 27th km, Notified Hazira Industrial Area, Surat, Hazira Road, **Surat, Gujarat – Prescribing of Terms of Reference – regarding.**

Sir

1. This has a reference to your online application vide Proposal no. IA/GJ/IND/189821/2020 dated 24/12/2020 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006.

2. The aforesaid project proposal was considered in 28th REAC meeting held on 18-20th January 2021.

Details submitted by the project propoucnt

3. The project of M/s. ArcelorMittal Nippon Steel India Limited loeated in Village: Hazira, Tehsil: Choryasi, District: Surat, State: Gujarat is for Modification in Existing Plant by Installing Auxiliary Facilities without Increasing Plant Capacity.

4. Environmental site settings

S. No.	Particulars	Details	Remarks
i.	Total land	770.00 ha [Private]	Land use: Industrial

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S. No.	Particnlars	Details	Remarks
ii.	Existence of habitation & involvement of R&R, if any.	Hazira (Around 0.50 Km in South Direction)	-
iii.	Latitude and Longitude of the project site	Latitude: 21° 6'50.68"N Longitude: 72°38'33.69"E	-
iv.	Elevation of project site the	9 meter	-
v.	Involvement of Forest land if any.	Nil	-
vi.	Water body exists within the project site as well as study area	Tapi ~0.5 km North East Direction Gulf of Khambhat 3 Km in west direction	-
vii.	Existence of ESZ/ ESA/national park/wildlife sanctuary/ biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Dumas Reserved forest ~5.30 Km in South East direction.	-

5. The existing project was accorded environmental clearance vide lr.no. F.No. J-11011/381/2014-IA II (I) dated 9th March 2016.

6. Implementation status of the existing EC

Sr. No.	Name of Facility	Unit	As per EC dated 9th March 2016			Implementation Status as on Dec, 2020	
			Existing	Proposed	Total	Status of Existing Units in 2016	Statns of Existing Units in 2020
I.	HBI Plant (DRI Mod. I to VI)	MTPA	7.83	-4.0	3.83	Only Mod V & VI are in operation	Mod I to VI "7.83" in operation
2.	Blast Furnace	MTPA	2.04	3	5.04	In operations	"2.04" in operations
3.	Sinter Plant	MTPA	I.48	7	8.48	In operations	"I.48" in operations
4.	Coke Oven (Recovery Type)						
	Gross Coke	MTPA	I.2	I.35	2.55	Under	Under

Sr. No.	Name of Facility	Unit	As per EC dated 9th March 2016			Implementation Statns as on Dec, 2020	
			Existiug	Proposed	Total	Status of Existing Units in 2016	Status of Existing Units in 2020
	Crude Tar (By – Product)	TPA	52,200	63,000	1,15,200	construction	construction
	Sulphur (By – Product)	TPA	I,700	I,980	3,680		
	Crude Benzol (By-Product)	TPA	0	I8,243	I8,243		
	Naphthalene	TPA	I30	0	I30		
5	Air Separation						
	Oxygen Gaseous	Nm^3/hr	3,60,544	64,200	4,24,744	In operations	"3,60,544" in operations
	Oxygen Liquid		2,950	500	3,450		"2950" in operations
	Nitrogen		1,19,944	25,700	I,45,644		"I,19,944" in operations
	Argon		3,470	I,500	4,970		"3,470" in operations
6	Steel Melt Shop-I(EAF) (4Nos.)	MTPA	4.6	-4.6	0	In operations (partial)	"4.6" in operations
7	Basic Oxygen Furnace (BoF) (3Nos.)	MTPA	0	4.6	4.6	proposed	proposed
8	Steel Melt Shop-2 (4 EAF& 4LF)	MTPA	5.0	0	5.0	In operations	"5.0" in operations
9	Corex Plant (2 Nos.)	MTPA	I.7	0	I.7	In operations	"1.7" in operations
I0	Lime Plant (Lime/ Dolime)	MTPA	0.93	0.27	I.2	In operations	"0.93" in operations
II	CPP	MW	3I	0	3I	In operations	In

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Sr. No.	Name of Facility	Uuit	As per EC dated 9th March 2016			Implementation Statns as on Dec, 2020	
			Existing	Proposed	Total	Status of Existing Units in 2016	Status of Existing Units in 2020
						(partial)	operations
		MW	48	0	48	Not yet established	Not yet established
		MW	525	0	525	Not in operation	In operations
12	Plate Mill	MTPA	1.5	0	1.5	In operations	In operations
13	Pellet Plant	MTPA	4.0	0	4.0	Not yet established	Not yet established
14	CSP, Hot Rolling Mill & Long Product - HRC	MTPA	3.5	0	3.5	In operations	In operations
	Rebar		1.6	0	1.6	Not yet established	Not yet established
	Wire Rod		0.7	0	0.7		
15	Caster Shop						
	Slab From Slab Caster	MTPA	4.9	0	4.9	In operations	In operations
	Billets From Billet Caster	MTPA	2.37	0	2.37	Not yet established	Not yet established
16	CRM						
	Hot Rolled Pickled Coils/Sheets	MTPA	1.5	0.54	2.04	In operations	In operations (Consent To Operate received from SPCB)
	CR Coils/Sheet		1.3	0.65	1.95		
	Galvanized Coils /Sheets		0.65	0	0.65		
	Coated Sheets/Coil		0.1	0	0.1		
	Any Other Lines						
17	Waste Heat Recovery Based Power Plant	MW	25	20	45	In operations	"25" in operations

Sr. No.	Name of Facility	Unit	As per EC dated 9th March 2016			Implementation Status as on Dec, 2020	
			Existing	Proposed	Total	Statns of Existing Units in 2016	Statns of Existing Units in 2020
18	Pipe Mill						
	H Saw Pipes	MTPA	0.15	0.15	0.30	In operations	In operations (Consent To Operate received from SPCB)
	L Saw Pipes	MTPA	0.33	0	0.33		
	Coating Plant	MTPA	0	0.48	0.48		

7. Proposed Auxiliary Facility

Sr. No	Facility	Unit	Proposed Capacity
1.	Coal briquetting Plant - (1000 TPD)	TPD	1000
2.	BF – PCI Project- Pulverized coal	T/Hr	80
3.	Lime Kiln (500 TPD) - Lime and Dolime	MT / Month	15000
4.	Rotary Kiln (200 TPD) - Calcined Lime	MT/Month	6000
5.	Blast Furnace Dust Catcher /Dust separation unit-150 TPD	TPD	150
6.	Acid Regeneration Plant - 100 KL & Pickling Line-3	KL/Day	100
7.	BF slag grinding mill (BOO) - 50 TPD	TPD	50
8.	New Cooling towers for		
	Mod-1 and 2	M3/HR	3900
	Mod-3 and 4	M3/HR	5300
	Mod-5 and 6	M3/HR	2000
9.	Slag Conditioning & Metal Recovery plant	TPD	7500
10.	Thick Plate Normalizing Furnace	Tons/year	15000
11.	Shot blasting machine	Tons/year	300,000
12.	VD Cooling Tower	m3/hr	3x 500m3/hr,
13.	RHD Cooling Tower	m3/hr	3x 1065m3/hr,
14.	Water Treatment Plant for 500 MW CCPP	m3/hr	2 x 500 m3/hr
15.	CRM-2		
	Hot Rolled Pickled Coils/Sheets	MTPA	3.2
	CR Coils/Sheet		2.2
	Galvanized Coils/Sheets		1.0
	Annealing coils/Sheets		1.0

16.	Ladle furnace - Existing Liquid Steel 4.6 MTPA (Standby LF-5 for Special grades)	-	-
17.	SMP-1 Fume Extraction System upgradation	-	-
18.	Mod 4 additional VPSA to utilize Corex gas and going forward Coke oven gas	-	-
19.	Hot metal Pretreatment Station Outside Shop (KR Technology)	-	-
20.	Tank Farm-2 with interconnection between PKL-3 & ARP-2	-	-
21.	Additional Ladle Furnace (LF7) – Standby for Special grades	MTPA	-

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

S. No.	Raw Material	Quantity required per auuum			Source	Distance from site (Kms)	Mode of Trausportatiou
		Existi-ug	Expausion	Total			
1.	Coal Fines	Nil	365000 MT / Year	365000 MT / Year	Pellet will be sourced from AMNS's Pelletization Plant located at Visakhapatnam & Paradeep, Flux (Calcinated Lime & Dolomite) produced in-house, Lime stone from Dubai & Oman, Iron Ore lump from Bailadila, Kumba-Australia, Brazil, Coal for Coke Oven plant from Australia (mainly) and Canada, USA, Russia.		These conveyors in turn move the coal to coal storage yard. The coal is transported from yard to coke oven plant is by series of conveyors. The coke produced shall be routed through cutting and sizing units. Prime grade coke from this unit will be transported to Blast furnace by conveyor and other fractions shall be stored in bunker, from where coke shall be transported to other consumers by trucks. The by-products produced and chemicals required shall be transported by road vehicles. The internal transportation of materials like refractory, store
2.	Polymer Binder	Nil	14600 MT / Year	14600 MT / Year			
3.	Coal Fines	Nil	88 MT/Hr	88 MT/Hr			
4.	Ferroy Allow (Mn, Ti, Mo, V, B etc.)	Nil	3-8 Kg/Ton	3-8 Kg/Ton			
5.	Aluminium	Nil	2.5-6 Kg/Ton	2.5-6 Kg/Ton			
6.	CPC	Nil	1-1.5 Kg/Ton	1-1.5 Kg/Ton			
7.	Limestone/Dolomite	Nil	34,500 MT/Month	34,500 MT/Month			
8.	Limestone (6-40 mm)	Nil	11867 MT/month	11867 MT/month			
9.	Ferroy Allow (Mn, Ti, Mo, V, B etc.)	Nil	2-20 Kg/Ton	2-20 Kg/Ton			
10.	Aluminium	Nil	2.8-3.5 Kg/Ton	2.8-3.5 Kg/Ton			
11.	CPC	Nil	0.1-2Kg/Ton	0.1-2Kg/Ton			
12.	Blast Furnace dust catcher dust	Nil	150 TPD	150 TPD			

S. No.	Raw Material	Qnautity required per anuum			Source	Distance from site (Kms)	Mode of Transportation
		Existi-ng	Expausion	Total			
13.	Blast furnace granulated slag	Nil	50 TPD	50 TPD			materials shall be by plant vehicles. All the materials will be covered during transportation through trucks to the site
14.	Production Consumables – Steel shots	Nil	250 Ton/Year	250 Ton/Year			
15.	Flat Steel strip in coil Form	Nil	5,40,000 MT/Annum	5,40,000 MT/Annu m			
16.	Hydrochloric Aci	Nil	30,000 Liters of 33% con	30,000 Liters of 33% con			
17.	HCl Regeneration	Nil	127 M^3 /Day	127 M^3 /Day			
18.	HR Coils	Nil	3.85 MTPA	3.85 MTPA			

9. The water requirement for the project is estimated as 10118.0 m^3 /hr, (Existing 8499 m^3/ hr + Proposed 1619 m^3/ hr) will be obtained from the Tapi River. The permission for drawl of surface water is obtained from Surat irrigation Department.

10. The power requirement for the project is estimated as 623 MW, will be obtained from the 400 KV transmission tower line for entire complex.

11. The capital cost of the project is Rs 6216.58 Crores and the capital cost for environmental protection measures is proposed as Rs 1185.08 Crores. The employment generation from the proposed project / expansion is 500 Nos.

12. There is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

13. Name of the EIA consultant: M/s Shree Green Consultants. The said consultant is not accredited by QCI/NABET.

14. Proposed Terms of Reference (Baseline data collection period 1st October 2020 to 31st December 2020)

Attributes		Sampling		Remarks
A. Air		No. of Stations	Frequency	
a. Meteorological parameters	Temp., RH, Rain Fall, CC, WD, WS	1	Continues 3 months	
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2 NO_x CO THC, NMHC, Lead	8	2 times per week	

Attributes		Sampliug		Remarks
B. Noise	Noise	8	Once in study period	
C. Water				
Surface water/Ground water quality parameters	Colour, pH, EC, Temp., Turbidity, Dissolved Solids, Alkalinity, Total Hardness (as CaCO3), Calcium (as Ca+2), Magnesium (as Mg+2), Chlorides (as Cl-) Sulphate (as SO4-2), Fluoride (as F-), Nitrates (as NO3-), Ammonical nitrogen, Phenolic compound, Boron (as B), Copper (as Cu), Iron (as Fe), Manganese (as Mn) Zinc (as Zn), COD, BOD, DO, Arsenic (as As), Cadmium (as Cd), Chromium (as Cr+6), Lead (as Pb), Mercury (as Hg), Nickel (as Ni), Cyanide (as CN), E-coli, Total Coliform	8 + 8	Once in study period	
D. Land				
a. Soil quality b. Land use	- Bulk Density, Moisture content, Water Holding Capacity Porosity, Permeability, Particle size distribution, Texture Class, pH (10% Solution), Electrical Conductivity Cation Exchange Capacity, Calcium, Magnesium Sodium, Potassium, Phosphorus, Sodium Absorption Ratio (SAR), Nitrogen, Organic Carbon Settlements, Industrial area, Land with scrub, Land without scrub, Mud plot, Salt pans, Water logged area etc.	8	Once in study period	
E. Biological a. Aquatic b. Terrestrial	Floral Diversity and Faunal Biodiversity	10 km radius study area	Once in study period	
F. Socio-economic parameters	Demography	10 km radius study area	Once in study period	

Observations of the Committee

15. The Committee noted the following:

i. EC for the plant under expansion at present was granted in March 2016. Under this program PP proposed to close down 4.0 MTPA HB1 and 4.6 MTPA SMS -1 and add units like BF, SP, Coke Ovens, By- product Plant, Oxygen Plant, BOF of 4.6 MTPA capacity, Lime Plant, WHRB and Pipe Mill.

ii. Now PP wants to add some more facilities like Coal briquetting, PCI injection in blast furnaces, LF, Lime kilns, BF dust catcher, Acid Regeneration Plant, BF slag grinding unit,

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New cooling towers, Normalising Furnace in Plate mill, Shot blasting Machines, Cooling tower and a new CRM 2 at a total cost of 6216.58 Cr.

iii. Above additions are the balancing facilities and would not have any impact of the sanctioned capacity if crude steel production i.e., 9.6 MTPA.

iv. At present the plant is housed in 770 ha land. No additional land is required for addition of these facilities.

v. Additional water requirement of 38856 KLD shall be met from Tapti River.

Reeommendations of the Committee

16. In view of the foregoing and after deliberations, the Committee recommended the project proposal for prescribing specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at **Annexnre-1** read with additional ToRs at **Annexnre-2.**

Decisiou of MoEFCC

17. The undersigned is directed to inform that the Ministry of Environment, Forest and Climate Change (MoEF&CC) after accepting the recommendation of the EAC (Industry- 1), hereby decided to accord following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at **Auuexure-1** read with additional ToRs at **Annexure-2**:

i. No construction activity/infringement will take place in flood plain of Tapi river situated in the vicinity of the project site. The flood plain corresponding to HFL of Tapi river shall be depicted and same may be verified by an authority not below the rank of District Magistrate/Executive Engineer of the State Government.

ii. The PP will raise green belt in 33% of the total project area. This will include 50 m wide green belt along the boundary of the plant situated towards the Tapi river.

iii. PM levels from existing and new stacks shall be maintained at less than 30 mg/Nm3 except for Coke Oven chimney where it shall be 50 mg/Nm3.

iv. Emission from ARP stack shall be less than 10 mg/Nm3 of HCl.

v. Zn dust shall be monitored in AAQ in CRM complex and data shall be submitted in EIA report.

vi. HW generated in CRM shall be disposed of in TSDF.

vii. Oily sludge from CRM and other mills shall be incinerated.

viii. 100 % Solid waste generated shall recycled/reused or sold.

ix. Treated effluent from various ETPs including BOD plant of Coke ovens shall be recycled and reused inside the steel works.

x. Mangroves survey shall be carried out and study report shall be furnished.

xi. CRZ mapping of the project site shall be carried out through an authorized agency inter-alia including HTL/LTL mapping, CRZ land classification along with super-imposition of facilities envisaged in the project.

xii. Cumulative impact assessment shall be carried out for the entire facility within the boundary of the plant complex.

xiii. EMPs for social and infrastructure development shall be based on the assessment of social needs and the issues raised in public hearing.

xiv. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.

xv. All roads in the plant shall be paved and industrial vacuum cleaners shall be used regularly to clean roads to reduce fugitive emissions.

xvi. Action plan to reduce the fugitive emissions from the plant shall be furnished.

xvii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

xviii. Action plan for rain water harvesting shall be furnished.

xix. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.

18. It is requested that the draft EIA Report may be prepared in accordance with the above mentioned specific ToRs and enclosed generic ToRs and additional ToRs and thereafter further necessary action including conduct of public consultation may be taken for ToR for undertaking EIA study for obtaining Environment Clearance in accordance with the procedure prescribed under the EIA Notification, 2006 as amended.

19. In accordance with this Ministry's Notification vide S.O. 751 (E) dated 17.02.2020, the ToRs are valid for a period of four years from today i.e., 08.02.2021 and will expire on 07.01.2025. There will be no further extension of validity of ToR.

This issues with the approval of the competent authority

(Suudar Ramauathau)
Scieutist 'E'

Copy to:-

1. Additional Chief Secretary, Forests & Environment Department, 14th Block, 8th Floor, Sachivalaya, Gandhinagar.
2. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. Chairman, Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10A, Gandhinagar-382010.
5. Member Secretary, Central Ground Water Authority, West Block –II, Wing -3, Sector 1, R.K.Puram, New Delhi – 110086.
6. District Collector, Surat District, Gujarat.
7. Guard File / Record file / Monitoring file.
8. MOEF&CC Website.

(Sundar Ramanathan)
Scieutist 'E'

ANNEXURE –1

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

1. **Executive Summary**

2. **Introductiou**
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the project proponent
   - iii. Importance and benefits of the project

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

4. **Site Details**
   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
   - ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including ail eco-sensitive areas and environmentally sensitive places)

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

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

6. **Enviroumental Status**
i. Determination of atmospheric inversion level at the project site and site-specific micro-meteoroiogical data using temperature, relative humidity, hourly wind speed and direction and rainfall.
ii. AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into aceount the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given

in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight iocations as per CPCB/MoEF&CC guidelines.

v. Whether the site falis near to polluted stretch of river identified by the CPCB/MoEF&CC.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detaiied description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7. **Impact Assessmeut aud Enviroumcut Mauagemeut Plau**

i. Assessment of ground ievel concentration of pollutants from the stack emission based on site-specifIc meteorological features. In case the project is iocated on a hiliy terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the projeet on the AAQ. Cumulative impact of ail sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality eontours shaii bc plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (iarge quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Ruies.

v. Details of stack emission and action plan for controi of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

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ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Totai capitai cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Pian including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. **Occupatioual health**

i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure ievei (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

iii. Annual report of health status of workers with special reference to Occupational Health and Safety.

iv. Pian and fund ailocation to ensure the occupational health & safety of all contract and casual workers.

9. **Corporate Enviroumcut Poliey**

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compiiance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / vioiations of environmental norms to the Board of Directors of the company and / or sharehoiders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers ineluding truek drivers during operation phase.

11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.1lI dated 30/09/2020 shall be complied.

12. Any litigation pending against the project and/or any direction/order passed by any Court of

Law against the project, if so, details thereof shall also be ineluded. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or reievant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shali quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be aiso attached as an annexure to the final ElA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specifIc chapter and page no. of the EIA-EMP Report
vii. While preparing the ElA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are avaiiable on thc website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCi)/National Acereditation Board of Education and Training (NABET) wouid need to include a certifIcate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shali be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be eonsidered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shali be provided. The draft EIA-EMP report shall be submitted to the State Pollution Controi Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time-scheduie of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened ete. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaehing of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of eoke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its souree and authorization from the eoncerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.

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Executive Summary

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

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

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Gujarat Pollution Control Board

Regional Office,
Belgium Square, Silver Plaza Complex, Opp. Linear Bus Stand,
Ring Road, Surat -395 003
Website: www.gpcb.gov.in

Annexure-D

A statement showing written replies given by Project Proponent of **M/s. ArcelorMittal Nippon Steel India Limited,** for 'Modification in existing Plant by Installing Auxiliary Facilities without Increasing Plant Capacity located at 27th km, Notified Hazira Industrial Area, Surat - Hazira road, Ta. & Dist.: Surat, Gujarat before and during Public Hearing held on 21/09/2021 at 11:00 a.m. at **ArcelorMittal Nippon Steel India Limited,** plant B, Security Gate, Hazira Bypass Road, Hazira, Ta. Choryasi, Dist.: Surat - 394270 as per the Ministry of Environment and Forests and Climate Change, Government of India, New Delhi vide its notification no. S.O. 1533 dated 14/09/2006 and its subsequent amendment S.O. 3067(E) dated 01/12/2009.

Sr. No.	Replies to Comments received in writing from Concerned Persons	Annexure
1	Shri Chhotubhai R. Patel, President (Hazira Kantha Vistar Sahakari Mandli Ltd.), At. & Po. Kavas, Ta. Choryasi, Dist. Surat.	D-1
2	Hazira Villagers (Lallubhai Patel & Others) Ta.:Choryasi, Dist.:Surat.	D-2
3	Dharmesh Mistry, Dist.:Bharuch.	D-3
4	Rinaben Dhansukhbhai Patel, Sarpanch: Rajgari Gram Panchayat At. Rajgari, Po. Suvali, Ta. Choryasi, Dist. Surat.	D-4
5	Suvali Gram Panchayat. At. & Po. : Suvali, Ta.: Choryasi, Dist. Surat.	D-5
6	Thakorbhai Vallabhbhai Khalasi, Asha Street, Village: Hazira Ta. Choryasi, Dist. Surat.	D-6 (Ref: Mail dated 16/09/2021)
7	Thakorbhai Vallabhbhai Khalasi and other villagers. At & Post: Hazira, Ta. Choryasi, Dist. Surat.	D-7 (Ref: Mail dated 17/09/2021 and Hard copy)
8	Jitendrakumar Babalbhai Patel Ankleshwar, Dist. Bharuch	D-8 (Ref: Mail dated 17/09/2021)
9	Kalpeshbhai Bhagubhai Patel, Taluka Panchayat Member, Shivrampur(Junagam), Ta. Choryasi, Dist. Surat.	D-9

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Gujarat Pollution Control Board

Regional Office,
Belgium Square, Silver Plaza Complex, Opp. Linear Bus Stand,
Ring Road, Surat -395 003
Website: www.gpcb.gov.in

10	Thakorbhai Vallabhbhai Khalasi Asha Street, Vachlo Mahollo, At Po.: Hazira, Ta. Choryasi, Dist. Surat.	D-10 (Ref: Mail dated 18/09/2021)
11	Shivrampur(Junagam) Gram Panchayat At – Shivrampur (Junagam), Po-Suvali, Ta.:Choryasi, Dist.:Surat.	D-11
12	Jayesh Patel President - Khedut Samaj, Surat	D-12
13	Parivartan Trust, (Kantha Vibhag Yuva Koli Samaj) President Shri Prakashbhai B. Contractor, At. Khajod, Dis. Surat.	D-13
14	Roshni Patel, Nanpura, Surat.	D-14
15	Hasmukh Vora, Amroli, Surat.	D-15
16	Deepakbhai Dhansukhbhai Patel, Village- Damka, Ta.:Choryasi, Dist.:Surat.	D-16
17	Pravinbhai Seth, Ankleshwar, Dist.:Bharuch	D-17
18	Jitendrakumar Babalbhai Patel Ankleshwar, Dist. Bharuch	D-18 (Ref: Mail dated 20/09/2021)
19	Zankhana Patel, MLA – Choryasi, Ta.:Choryasi, Dist.:Surat.	D-19
20	Nileshkumar Satishbhai Tadvi, At. & Po. Hazira, Ta.:Choryasi, Dist.:Surat.	D-20
21	Shivrampur Gram Panchayat, At.- Shivrampur (Junagam), Po. – Suvali, Ta.:Choryasi, Dist.:Surat.	D-21
22	Ranjanben Bharatbhai Patel, Sarpanch Shri, Village Panchayat Mora, Village Mora, Ta. Choryasi, Dist. Surat.	D-22
23	Chandrakant B. Patel, Mata Faliyu, Hazira, Ta. Choryasi, Dist. Surat.	D-23
24	Dharmendra B. Patel, Sarpanch Shri, Hazira Gram Panchayat, At. & Po. Hazira, Ta. Choryasi, Dist. Surat.	D-24

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Gujarat Pollution Control Board

Regional Office,
Belgium Square, Silver Plaza Complex, Opp. Linear Bus Stand,
Ring Road, Surat -395 003
Website: www.gpcb.gov.in

25	Naginbhai Chandubhai Patel, Gundardi Faliyu, Village – Hazira, Ta.:Choryasi, Dist.:Surat.	D-25
26	Deepakbhai Dhansukhbhai Patel, Village- Damka, Ta.:Choryasi, Dist.:Surat.	D-26 (Same Reply as D-16)
27	Parivartan Trust, (Kantha Division Yuva Koli Samaj) President Shri Prakashbhai B. Contractor, At. Khajod, Dis. Surat.	D-27 (Same Reply as D-13)
28	MSH Sheikh, President - Brackish Water Research Center, At. & Po. Olpad, Dist.: Surat.	D-28
29	Katha Vibhag Machi Samaj Trust, Po.Budia, Maachivaad, Ta.:Choryasi, Dist.:Surat.	D-29
30	Darshan A. Naik, Olpad, Surat.	D-30
31	Divyakant Rasiklal Patel. Dist.:Surat.	D-31

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ANNEXURE D - 7

AM/NS INDIA

Ref.No: AMNS / PH / 7

Date: 21/09/2021

To,
Thakorbhai Vallabhbhai Khalasi and other villagers.
At & Post: Hazira, Ta. Choryasi, Dist. Surat.

Subject: Reply to the Representation on Modification in existing plant by Installing Auxiliary Facilities without Increasing Plant capacity in ArcelorMittal Nippon Steel India Limited, Notified Industrial Area, Hazira Road, District: Surat.

Reference: Your letter dated 16/09/2021 (Mail & Hard Copy received on 17/09/2021)

Dear Sir,

Please, find below our point wise reply as a seriatim.

1. Violations under water Act, 1973 and Environment Protection Act,1986

There is no unauthorized and/or untreated effluent discharge from our unit.

AMNSIL's 03 divisions have been authorized to discharge treated effluent (27,572 M3/day) to tapi estuary as per GPCB consent and the consent details are:

Point 1: HRC division consent (CCA) order no. AWH 107719 Dated. 07.04.2020 -19,672 M3/day
Point 2: Plate Mill Division, consent (CCA) order no. AWH 107721 dated.07.04.2020 – 1920 M3/day.
Point 3: Power Division, consent (CCA) order no. AWH 103579 dated.19.08.2019 - 5,980 M3/Day.

Further, as a part of this modernization project we are setting up Reverse osmosis plant at Rs. 60 Crores towards Water Pollution Control measures i.e. for implementation of ZLD system. With this RO Unit, we will achieve the ZLD for the proposed modernisation areas.

As regards effluent sampling & analysis, NABL & MoEF&CC accredited 3rd party laboratory is regularly carrying out sample collection of treated Effluent water of various streams, carrying analysis and submitting reports to Gujarat Pollution Control Board (GPCB). GPCB is also collecting samples during their site visits.

2. Violations under Environment Protection Act, 1986

As mentioned above, in terms of the present CCA, AMNSIL is having permission to discharge treated effluent. Compliance report of CCA orders were enclosed in EIA report.

The company is committed to comply with Environmental norms stipulated by the authorities.

ArcelorMittal Nippon Steel India Limited
(Formerly Essar Steel India Limited)
Registered Office: 27th km, Surat-Hazira Road,
Hazira, Surat 394 270 Gujarat, India
CIN U27100GJ1976FLC013787

T +91 0261-668 9200
E contact@amns.in
W www.amns.in

A joint venture between ArcelorMittal and Nippon Steel Corporation

ArcelorMittal NIPPON STEEL

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3. Violations under Water Act, 1974

NABL & MoEF&CC accredited 3rd party laboratory is regularly carrying out sample collection of treated Effluent water of various streams, carrying analysis and submitting reports to Gujarat Pollution Control Board (GPCB). GPCB is also collecting samples during their site visits. The results are found well within the limits.

4. Violations of Haz Waste rules

No hazardous waste is being stored in the Plant premises and only the non-hazardous solid waste such as Granulated slag, EAF slag are being stored. There is no pollution to environment due to these solid wastes.

The company has initiated 3 R's principle (Reduce, Re-use, Recycle). Moreover, all the iron bearing non-hazardous solid waste materials is being reutilized into the system.

As the domestic market for the non-hazardous slag (Blast furnace Granulated Slag) is very low hence, we are exporting the slag to foreign countries as an additive in the cement manufacturing process as suggested by Ministry of Steel.

5. Violations under Environment Protection Act,1986

For utilization of maximum production capability of existing plant, technical study has been carried out through inernal technical experts and found some projects. And to implement those projects, this proposal has been made.

These projects are of debottlenecking activities of existing facilities and hence these projects are coming in the existing unit / adjacent to the existing units. Hence, it can't be visualized properly through Google image. The proposed facilities will be implemented after obtaining the EC. During GPCB CTE inspection, the project site was inspected by the GPCB officials.

6. Violations under Air Act,1981

In recent times, the company has taken various measures to control Air Pollution. In this regard, time bound action plan with Various Short Term & Long Term Actions are under implementation. The Action plan has been submitted to Gujarat Pollution Control Board (GPCB).

By implementation of these measures, we can able to control the Air Pollution. Gujarat Pollution Control Board is taking regular follow up for implementation of the Actions submitted by the company.

Various Actions Implemented are:

- Fume Extraction / Dust collection system has been modified and revived for efficient suction.
- Bag house capacity is increased & filter bags have been replaced.
- Manual water sprinkling is going on, in & around plant as well as on roads.
- Road sweeping machines have been increased form 2 nos. to 7 nos. for effective road cleaning.
- Manual cleaning of the roads and the surrounding areas is enhanced by increasing additional manpower to 270 nos. per day.

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Various Actions Proposed are:

- Further upgradation of secondary Fume Extraction system of SMP1
- SMP2 - Bellow, Impeller and casing replacement
- Corex – Bags Replacement & Concrete Flooring
- BF – Stock house Dedusting system modifications

Regarding stack monitoring, NABL & MoEF&CC accredited 3rd party laboratory is regularly carrying out sample collection of stack samples, carrying analysis and submitting reports to Gujarat Pollution Control Board (GPCB). GPCB is also collecting samples during their site visits. The results are found well within the limits.

General points for public consultation:

Point 1: Public Hearing location has been selected by the concerned Statutory Authorities based on the provisions, Rules and EIA,2006 notification as well as considering current COVID Guidelines.

Point 2: At present, there are two roads available for the connecting to Hazira village. AMNS is maintaining the main village road. However, for an additional escape route Government has to suggest suitable options.

Point 3: AMNSI ensures that the hazardous waste generated is disposed-off in compliance with the applicable laws and no waste disposal is taking place in the sea.

Point 4: No additional land required for this project and will be implemented within the existing plant premises.

The said application for the Forest land diversion for Industrial purpose do not pertain to this project.

Point 5: It is mentioned in the EIA report that the Existing greenbelt is developed in the area of 170 ha. And further area of about 84 ha. will be earmarked for the development of green belt. After establishment, total greenbelt area will be 254 ha. Total 1,83 566 nos. of trees will be planted at plant boundary, road side, around offices & buildings and in the open land.

Point 6: The detailed land use breakup is given table 2.13 (A) of EIA Report.

Point 7: Copy is enclosed as Annexure - 1.

Point 8: The WP(PIL)34/2021 has now been disposed of by the Hon'ble Gujarat High Court and disputed lands are not involved in the proposed project.

Point 9: Notably. The Company was undergoing corporate insolvency resolution and we remain commuted towards our social commitment. We will carry out the Enterprise Social Commitments as per the proposed EC.

Now, the company has initiated Various activities under its Corporate Social Responsibility like skill development, Health Awareness, health checkup camps & vaccination drive etc. to nearby villages. In recently during pandemic situation also the company as a responsible Corporate citizen has initiated so many activities to mitigate / control the COVID Pandemic situation.

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Point 10: Copy is available in the EIA Report.

Point 11: Will explore the possibility of 50-meter green belt wherever possible in estuary side

Point 12: In the draft EIA report, it is clearly addressed the pollution control mitigation methodology for Existing plant facilities as well as proposed.

Point 13: It is addressed in Draft EIA Report under Impact Assessment and Environmental Management Plan chapter.

Point 14: Around 5,000 people.

Point 15: Approx. 1325 m3 / day

Point 16: Approx.1,260 m3 / day. For the last two years, average quantity of water provided to Hazira Village is ~1,291 m3 / day.

Point 17: The water allocated by Irrigation department is utilized for Plant, Township and supply to nearby villages.

Point 18: Approx. 200- 250 Tons/month hazardous waste is disposed to the TSDF.

Point 19: 3,668 Tons of Hazardous waste is disposed to TSDF site for the last two years. The name of TSDF are,

1) M/S. Detox Private Ltd, Kutch.
2) M/S. BEIL, Ankleshwar.

Point 20: The Zinc measurements were carried out in CRM Complex as per ToR Condition of MoEF&CC.

Point 21: There is no source of Phenol and PHc compounds from the steel plant operations. This is due to marine vessel operations in the estuary.

Point 22: As per our proposal and ToR issued to us only terrestrial EIA is required to be prepared. Marine monitoring report is prepared and submitted along with EIA report already.

Point 23: Detailed Marine Monitoring of Tapi Estuary has been conducted. Bioassay test for treated effluent at approved discharge outlet points is being carried out every month through NABL & MoEF&CC approved laboratory and results of the report is being regularly submitting to GPCB / MoEF&CC. The mitigation measures proposed are in line with current CCA and regulations.

Point 24: As mentioned above, in terms of the present CCA, AMNSIL is having permission to discharge treated effluent. Compliance report of CCA orders were enclosed in EIA report.

Point 25: This is addressed in point no.21.

Point 26: As per study in the region there is a White-rumped Vulture (Gyps bengalensis) exists.

In this modernization project we are setting up mostly Environment protection facilities and proposed Rs.1185 Crores towards Environment Protection measures.

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Point 27: GPCB has issued certain Show Cause Notices (SCN) and Notice of Directions (NoD) under Air Act to the company, accordingly compliance report along with time bound Action plan submitted to the GPCB. In view of the action taken and reply tendered by AMNSIL, GPCB has deemed it fit to not proceed further on the notices. GPCB is doing regular follow up for implementation status.

Point 28: AMNSIL ensures that untreated effluent is not discharged into the Tapi estuary and there is no pollution caused in the Tapi estuary on account of the discharge of treated effluent from the plant. Further, as per GMB this is navigational channel, fishing activity is prohibited due to navigational safety aspect.

Point 29: No reclamation activities are proposed in this project. There is no dumping of waste of any type out in sea being carried and/or proposed under the present project by AMNSIL.

Thanking You.

Yours Faithfully,

For, ArcelorMittal Nippon Steel India Limited

Rajiv Bhatnagar
Executive Director – Projects

Copy: The Regional Officer, GPCB, Surat.

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HRC Division Environment Clearance

EC No. J-11011/74-III/ 2006-IA.II(I)
dated 29.05.2008

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F. No. J-11011/74-III/2006-IA.II(I)
Government of India
Ministry of Environment & Forests
(IA. Division)
****

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
Dated 29th May, 2008

To,

M/s Essar Steel limited
Hazira, District Surat
Gujarat

Sub: Expansion of Integrated Steel Plant at Hazira, Surat, Gujarat by M/s Essar Steel Limited, Hazira – Environmental clearance reg.

Sir,

Kindly refer your letter No. ESTL/ENV/EC/P-II/0507 dated 12th June, 2007 and 20th July, 2007 regarding trifurcation of the environmental clearance accorded by the Ministry for the expansion of integrated steel plant (4.5 MMTPA) alongwith other associated facilities (units) at Hazira, Surat, Gujarat vide letter no. J-11011/74/2006-IA.II(I) dated 13th June, 2006 with a total cost of Rs. 4,918.00 Crores in the name three group companies viz. (i) Essar Steel Limited (ESTL), (ii) Essar Steel (Hazira) Limited (ESHL) and (iii) Hazira Plate Limited (HPL).

2.0 It is noted that trifurcation of the said environmental clearance for specified products in the name their group companies viz. (i) Essar Steel Limited (ESTL), (ii) Essar Steel (Hazira) Limited (ESHL) and (iii) Hazira Plate Limited (HPL) is for the administrative and commercial reasons of the cleared products in the said environmental clearance letter. Following will be manufactured by M/s Essar Steel Limited (ESTL) at the existing site and no additional land will be required :

S. N.	Product Name	Unit	Products (TPA)
1	Hot Briquetted Iron (HBI)	MTPM	3,33,333
2	BF Grade Coke	MTPM	50,000
3	Electricity Generation (WHRB)	MU/Day (MW)	1.15 (48 MW)
4	Hot rolled Coil (HRC)	MTPM	3,75,000
5	Oxygen (Gas)	NM^3/M	371,12,000
6	Oxygen (liquid)	NM^3/M	21,24,000
7	Nitrogen	NM^3/M	345,20,000
8	Argon	NM^3/M	10,58,400
9	Electricity Generation	MW	31
10	Electricity Generation (new CPP)	MW	525

3.0. The Ministry of Environment and Forest has examined the request of M/s Essar Steel Limited and observed that there will be no change in location, technology, process, products, emission and effluent waste generation. Accordingly, Ministry trifurcates the environmental clearance into M/s Essar Steel Limited and M/s Essar Steel (Hazira) Limited and Hazira Plate Limited under the provisions of EIA Notification dated 14th September, 2006. This environmental clearance is in the name of the M/s Essar Steel Limited, Hazira for the production of Hot Briquette Iron (3,33,333 TPM), BF Grade Coke (50,000 TPM), Hot Rolled Coil (3,75,000 TPM), Oxygen Gas (371,12,000 Nm^3/Month), Oxygen Liquid (21,24,000Nm^3/Month), Nitrogen (345,20,000 Nm^3/Month), Argon (10,58,400 Nm^3/Month), WHRB from Coke Plant (48 MW), Electricity generation (31 MW), gas based Captive Power Plant (525 MW) with a total cost of

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Rs. 2,568.00 Crores subject to the strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

i. The Ministry's environmental clearance accorded for the expansion of integrated steel plant (4.5 MMTPA) alongwith other associated facilities (units) at Hazira, Surat, Gujarat vide letter vide letter no. J-11011/74/2006-IA.II(I) dated 13th June, 2006 for the specified products in the name of M/s Essar Steels Limited stands withdrawn and supersedes the previous environmental clearance dated 13th June, 2006 from the date of issue of this environmental clearance.

ii. The gaseous emissions form various processes units shall conform to the load/mass based standards notified by the Ministry on 19th May, 1993 and standards prescribed from time to time. The Gujarat State Pollution Control Board (GSPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. CO shall also be monitored along with other parameters (SPM, SO_2 and NO_X) in the stack. Continuous stack monitoring in respect of SPM shall be extended to the stacks of expansion plant also and on-line data shall be submitted to the CPCB and GSPCB.

ii. Total water requirement shall not exceed 44,766 M^3 / day as permitted by the State Government. The effluent generated shall be analyzed for presence of metal and bioassay (toxicity) test shall be carried out as per the CPCB guidelines. Analysis of the water for heavy metal in the vicinity of the slag dumping area shall also be carried out once in every six month and data shall be submitted to the Ministry and GSPCB. An effort shall be made to recycle and reuse the treated waste water in the process itself to reduce quantity of water consumption and effluent discharged into river Tapi. Separate drains for domestic, process, storm water shall be provided in consultation with SPCB. The domestic wastewater shall be treated in STP and treated waste water after conforming to the prescribed standards shall be used in green belt development.

iii. In-plant control measures for controlling fugitive emissions from spillage/raw materials handling shall be provided. Further, specific measures like water spraying at all the transfer points, conveyors and hoppers, curtains, suitable enclosures, dust collection system and water sprinkling on roads shall be provided to control fugitive emissions. Data on fugitive emissions shall be regularly monitored and records maintained.

iv. The company shall install bag filters to control the emissions from the ventury scrubbers and hydro-cyclones shall be provided to HBI plant; fume extraction system consisting of bag filters to HRC plant; ESP, bag filters, cyclones to Blast Filters (BF) & Sinter plant; dust extraction system with bag filters to coke oven plant and bag filters to lime plant. The flue gas emission through stacks attached to the boiler, furnace and heater shall conform to the standards prescribed by the Gujarat Pollution Control Board.

v. The company shall undertake rainwater harvesting measures by collecting the rainwater through drains. The water collected shall be connected to raw water pipeline for reuse in the plant. The company shall provide proper drainage system for rainwater to prevent water logging within and in the vicinity of the plant.

vi. A green belt of adequate width and density shall be developed in at least 25 % of plant area and along the boundary wall of site as per the CPCB guidelines.

vii. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

viii. As proposed, expansion of integrated steel plant shall be based on the natural gas only. In case the NG required for the Steel manufacturing process and Captive Power Plant (CPP) including proposed expansion totaling about 8.00 MMSCMD is not available, alternative fuel can be used for the power plant only. However, the environmental impact assessment for the alternate fuel shall accordingly be carried out and environmental clearance shall be obtained from the Ministry.

ix. Environmental Clearance in respect of jetty in CRZ area shall be obtained prior to commencement of the expansion project and a copy of the environmental clearance accorded shall be submitted.

x. The company shall comply with all the recommendations/action points made in the Charter on Corporate Responsibility for Environment Protection (CREPs) and progress report shall be submitted to MOEF/CPCB.

B. GENERAL CONDITIONS :

i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board and the State Government.

ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

iii. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO_2 and NO_X are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and GSPCB / CPCB once in six months.

iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.

v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should confirm to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

vii. As mentioned in the EIA/EMP, Project authorities shall ensure judicious utilization of Rs. 161.00 Crores and Rs. 16.50 Crores earmarked towards the capital cost and

recurring expenditure/annum earmarked for the environmental pollution control to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government. An implementation schedule for complying with all the conditions stipulated herein shall be submitted to the Regional Office of this Ministry at Bhopal / CPCB / GSPCB. The funds so provided shall not be diverted for any other purposes.

viii. The Regional Office of this Ministry at Bhopal / CPCB / GSPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

ix. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

6.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

7.0. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

(Dr. P.B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Environment and Forests, Government of Gujarat, Gandhinagar, Gujarat.
2. The Chief Conservator of Forests (Central), Ministry of Environment and Forests, Regional Office, (West), Link Road No. 3, E-5, Arera Colony, Bhopal – 462 016, M.P.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110 032.
4. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10-A, Gandhinagar, Gujarat -382010.
5. Adviser IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
7. Guard File.
1. Monitoring File.
2. Record File.

29/5/08

(Dr. P.B. Rastogi)
Director

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Plate Mill Division Environment Clearance

EC No -11011/74-II/ 2006-IA.II(I)
dated 29.05.2008

TRUE COPY

F. No. J-11011/74-II/2006-IA.II(I)
Government of India
Ministry of Environment & Forests
(IA. Division)
****

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
Dated 29th May, 2008

To,

M/s Essar Plate Limited
(Hot Metal Complex)
Hazira, District Surat, Gujarat.

Sub Production of Hot Rolled Plates (1,500,000 TPA) at Hazira, Surat, Gujarat by M/s Hazira Plates Limited - Environmental clearance reg.

Sir,

Kindly refer your letter No. ESTL/ENV/EC/P-II/0507 dated 12th June, 2007 and 20th July, 2007 regarding trifurcation of the environmental clearance accorded by the Ministry for the expansion of integrated steel plant (4.5 MMTPA) alongwith other associated facilities (units) at Hazira, Surat, Gujarat vide letter no. J-11011/74/2006-IA.II(I) dated 13th June, 2006 with a total cost of Rs. 4,918.00 Crores in the name three group companies viz. (i) Essar Steel Limited (ESTL), (ii) Essar Steel (Hazira) Limited (ESHL) and (iii) Hazira Plate Limited (HPL).

2.0 It is noted that trifurcation of the said environmental clearance for specified products in the name their group companies viz. (i) Essar Steel Limited (ESTL), (ii) Essar Steel (Hazira) Limited (ESHL) and (iii) Hazira Plate Limited (HPL) is for the administrative and commercial reasons of the cleared products in the said environmental clearance letter. Hot Rolled Plates (1,500,000 TPA) will be manufactured at the existing site at Hazira, Surat, Gujarat by M/s Hazira Plates Limited and no additional land will be required.

3.0. The Ministry of Environment and Forest has examined the request of M/s Essar Steel Limited and observed that there will be no change in location, technology, process, products, emission and effluent waste generation and, accordingly, trifurcates the earlier environmental clearance into M/s Essar Steel Limited and M/s Essar Steel (Hazira) Limited and Hazira Plate Limited under the provisions of EIA Notification dated 14th September, 2006. This environmental clearance is in the name of the M/s Hazira Plates Limited, Hazira for the production of 1,25,000 TPM of Plates with a total cost of Rs. 2,000.00 Crores subject to the strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

i The Ministry's environmental clearance accorded for the expansion of integrated steel plant (4.5 MMTPA) alongwith other associated facilities (units) at Hazira, Surat, Gujarat vide letter vide letter no. J-11011/74/2006-IA.II(I) dated 13th June, 2006 for the specified products in the name of M/s Essar Steels Limited stands withdrawn and supersedes the previous environmental clearance dated 13th June, 2006 from the date of issue of this environmental clearance.

ii. The gaseous emissions form various processes units shall conform to the load/mass based standards notified by the Ministry on 19th May, 1993 and standards prescribed from time to time. The Gujarat State Pollution Control Board (GSPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels shall go beyond the

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prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.

iii. Total water requirement shall not exceed 7,000 M^3/day as permitted by the State Government. An effort shall be made to recycle and reuse the treated wastewater in the process itself to reduce quantity of water consumption and effluent discharged into river Tapi. Separate drains for domestic, process, storm water shall be provided in consultation with SPCB.

iv. In-plant control measures for controlling fugitive emissions from spillage/raw materials handling shall be provided. Data on fugitive emissions shall be regularly monitored and records maintained.

v. The flue gas emission through stacks attached to the furnace and heater shall conform to the standards prescribed by the Gujarat Pollution Control Board.

vi. Used lube oil and containers shall be sold to authorized recyclers / reprocessors only.

vii. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

viii. Adequate green belt all around the plant shall be provided to reduce ambient noise.

B. GENERAL CONDITIONS :

i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board and the State Government.

ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

iii. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO_2 and NO_X are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and GSPCB / CPCB once in six months.

iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.

v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should confirm to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

vii. As mentioned in the EIA/EMP, Project authorities shall ensure judicious utilization of Rs. 10.00 Crores and Rs. 1.00 Crores earmarked towards the capital cost and recurring expenditure/annum earmarked for the environmental pollution control to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government. An implementation schedule for complying with all the conditions stipulated herein shall be submitted to the Regional Office of this Ministry at Bhopal / CPCB / GSPCB. The funds so provided shall not be diverted for any other purposes.

viii. The Regional Office of this Ministry at Bhopal / CPCB / GSPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

x. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

6.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

7.0. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

(Dr. P.B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Environment and Forests, Government of Gujarat, Gandhinagar, Gujarat.
2. The Chief Conservator of Forests (Central), Ministry of Environment and Forests, Regional Office, (West), Link Road No. 3, E-5, Arera Colony, Bhopal – 462 016, M.P.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110 032.
4. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10-A, Gandhinagar, Gujarat -382010.
5. Adviser IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
7. Guard File.
8. Monitoring File.
9. Record File.

(Dr. P.B. Rastogi)
Director

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Power Division Environment Clearance

EC No - J-13011/7/ 2006-IA.II(T)
dated 21.09.2006

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BY SPEED POST

No. J-13011/7/2006-IA.II(T)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan
CGO Complex,Lodi Road
New Delhi-110003

Dated: 21st September, 2006

To

The General Manager (Environment)
M/s Essar Steel Limited
Hazira, Surat – 394 270
Gujarat

Sub: 525 MW Gas Based Captive Power Plant at Hazira, District Surat, Gujarat by M/s Essar Steel Limited - Environmental Clearance regarding.

Sir,

The undersigned is directed to refer to your communications no. ESTL/ENV/EC/P2/PS-02-06 dated 15th February, 2006, 25th April, 2006, 31st May, 2006 and 21st July, 2006 on the above mentioned subject.

2. It is noted that the project is for setting up of a gas based combined cycle captive power project in the existing premises of the Essar Complex to meet the power requirement of the steel plant expansion. Total land required for the captive power project(CPP) is 24.5 ha which is available in the existing premises. The power plant configuration will be a gas turbine of 330 MW and a steam turbine of 195 MW. It is estimated that the quantity of gas to be used for the plant shall be 25,00,000 SM^3/day. The proposed site is at a distance of about 300 m from HTL of Tapi Estuary and as such outside CRZ area. No new activity relating to the plant will be setup in the CRZ area. The existing discharge channels which are in the CRZ area will be utilized for this plant also. The estimated water requirement of 3 MGD for the power plant will be met out of the already allocated 15 MGD of water. No ground water shall be used for the plant. No Defence installations, reserve forest, Biosphere Reserve, National Park/Wildlife Sanctuary is located within 10 km of the site. No R&R is involved. Public hearing was held on 10th March, 2005 and NOC has been obtained on 12th May, 2005 from the State

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Pollution Control Board. The capital cost of the project is Rs 1082.00 crores which does not include any amount for environmental protection measures.

3. On the basis of the information submitted and after its consideration by the Expert Committee for Thermal Power Projects, environmental clearance for the above mentioned project is hereby accorded subject to implementation of the following terms and conditions:

(i) The conditions stipulated by GPCB vide their letter nos. PC/ NOC/SRT-1556/ 13884 dated 12th May, 2005 shall be strictly implemented.

(ii) Only Natural Gas/R-LNG shall be used as fuel for the power plant.

(iii) Four stacks of 65 m each shall be installed with continuous Online monitoring system.

(iv) Low NOx burners shall be provided for control of NOx emissions. NOx emissions from individual stacks shall be restricted to less than 50 ppm.

(v) A comprehensive risk analysis for the worst case scenario (taking into account the total inventory and their cascading effects) shall be carried out. The risk contours shall be plotted on the location map clearly showing the vulnerable areas. The details shall be furnished within 3 months. A maximum of 4 tonners of chlorine shall be stored at site and that too at two locations. Necessary Disaster Management Plan shall also be prepared and submitted to the Ministry within three months.

(vi) There shall be no Fugitive emissions of Gas.

(vii) No new construction relating to the project shall be undertaken in CRZ area.

(viii) Regular monitoring of the air quality, including HC levels both in work zone and ambient air shall be carried out in and around the power plant. Complete analysis of the recorded data shall be regularly undertaken and results shall be submitted to the Ministry every six months.

(ix) Necessary permission from the Chief Controller of Explosives shall be obtained before commissioning of the plant and a copy of the same shall also be submitted.

(x) Closed Cycle Cooling System with COC of atleast 5 shall be provided.

(xi) The liquid effluents shall be used within the plant to the extent possible. The balance effluents after treatment and conforming to the prescribed standards shall be discharged into Tapi Estuary through existing channel.

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(xii) The greenbelt shall be developed in a total area of 164 ha of land of the total Essar Complex at Hazira (existing 500 ha and expansion of 250 ha), thus covering about 22% of the total area. An year-wise action plan for greenbelt development shall be prepared and submitted to the Ministry within three months.

(xiii) The proposed by-pass road to by-pass the entire Essar Complex shall be completed within two years and thereafter the existing road connecting the Hazira Village through the Essar Complex shall be closed for general public to avoid any risk to their life and property in the eventuality of a major accident taking place. The time schedule for this diversion and the agency responsible for the diversion work, with progress in the matter, shall be communicated to the Ministry periodically.

(xiv) The State Coastal Zone Management Authority shall regularly monitor the project to ensure that the provisions of the CRZ Notification are not violated by the proponent.

(xv) Rainwater harvesting shall be adopted in consultation with the Central Groundwater Authority/ Board. The plan for the same shall be submitted within a period of three months from the date of clearance.

(xvi) Leq of Noise level shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.

(xvii) Adequate safety measures shall be provided to limit the impact within the limits of the plant, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.

(xix) Regular mock drills for the On-Site emergency management plan shall be carried out as per the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989. Based on the same, changes/improvements required, if any, in the On-Site emergency management plan shall be ensured.

(xx) The project proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in

(xxi) Details of capital and recurring cost for environmental protection measures shall be submitted to the Ministry within 30 day of the receipt of the clearance letter.

(xxii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

(xxiii) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/Regional Office/CPCB/SPCB.

(xxiv) Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.

(xxv) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

(xxvi) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.

(xxv) Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhopal /the CPCB/the SPCB who would be monitoring the compliance of environmental status.

4. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.

5. The environmental clearance accorded shall be valid for a period of 5 years for commencement of construction/operation of the power plant. In case, if the project authorities fails to do so within this stipulated period, this environmental clearance shall stand lapsed automatically.

6. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

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7. The above stipulations shall be enforced along with others as under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, Hazardous Wastes (Management and Handling) Rules, 1989, the Public Liability Insurance Act, 1991 and rules there under, the Environment Impact Assessment Notification of January, 1994 and their subsequent amendments.

(S.K. AGGARWAL)
DIRECTOR

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Conarc Division Environment Clearance

EC No - J-11011/714-A/ 2008-IA.II(I)
dated 05.07.2010

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F. No. J-11011/714-A/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
Dated: July 5th, 2010

To,

M/s Essar Steel (Hazira) Ltd.
Hazira-394 270
District Surat, Gujarat.

E-mail : alagurajanp@essar.com / jarafat@essar.com ;
Fax No. : 011–29837874 / 29844370 / 0261-6688888

Subject: Integrated Steel Plant (5.0 MMTPA) at Hazira, District Surat, Gujarat by M/s Essar Steel (Hazira) Ltd. (ESHL) – Environment clearance reg.
Ref. : Your letter no. ESHL/ENV/11-09/01 dated 31st October, 2009.

Sir,

Kindly refer your letter no. ESHL/ENV/11-09/01 dated 31st October, 2009 alongwith project documents including Form I and Pre-feasibility Report and EIA/EMP as per the EIA Notification, 2006 and related project documents and subsequent clarifications furnished vide communications dated 24th February, 2010 and 16th March, 2010 regarding above mentioned project.

2.0 You have informed to the Ministry that as a part of group restructuring activity by the Essar Group, the Integrated Steel Plant (5.0 MMTPA) will be handled by M/s Essar Steel (Hazira) Ltd. (ESHL) and all the power plants by separate company viz. M/s Essar Power Hazira Ltd. (EPHL) and accordingly have requested to transfer of steel plant in the name of M/s Essar Steel (Hazira) Ltd. (ESHL). Transfer is for administrative and commercial reasons. There will be no change in any of the features of the Integrated Steel Plant (5.0 MMTPA) including capacity, technology, location, land requirement, fuel and water requirement, pollution load etc.

3.0 The Ministry of Environment and Forests has examined the application. It is noted that Ministry has already accorded environmental clearance for the existing Integrated Steel Plant (4.5 MMTPA) alongwith Captive Power Plant (270 MW) vide letter no. J-11011/327/06 IA (II)(I) dated 29th May, 2008 at Hazira, District Surat, Gujarat and subsequently for the expansion of the Integrated Steel Plant (4.5 to 5.0 MMTPA) with HBI (7,20,000 MTPA) alongwith Captive Power Plant (270 MW) vide letter dated 22nd December, 2008 at the same project site. Total project area for the steel plant will be 215 ha. No land will be acquired and expansion will be carried out on the existing land only. Total cost of the project will be Rs. 5,750.00 Crores. Final capacities and products of the Steel Plant (5.0 MTPA) will be as per Annexure 1.

4.0 The COREX process will be adopted for the production of steel (5.0 MMTPA). Electrostatic precipitator (ESP), bag filter, gas cleaning plant (GCP, dust extraction (DE) & dust suppression (DS) system, scrubber etc. will be provided to control gaseous emissions. Water sprinklers, cyclone, dedusting system, fume extraction system etc. will

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be provided to control fugitive emissions from various sources. Total water requirement will be 1,00,838 m^3/day. The treated wastewater will be used for ash handling, dust suppression, green belt development and remaining will be discharged to Tapi Estuary after meeting the norms as per standards prescribed. Lime/dolime fines, mill scales, iron fines, Iron ore fines etc. will be fully utilized in the sinter making. Blast furnace and Corex slag will be sold to cement manufacturers. EAF slag and other solid/hazardous wastes will be disposed off in environment-friendly manner.

5.0 No Public Hearing / Public Consultation is required due to expansion of the proposed unit in the same campus as per Section 7 (ii) of EIA Notification, 2006.

6.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under EIA Notification dated 14th September, 2006 subject to strict compliance of the following conditions:

A. SPECIFIC CONDITIONS:

i. The Ministry's environmental clearance accorded for the existing Integrated Steel Plant (4.5 MMTPA) alongwith Captive Power Plant (270 MW) vide letter nos. J-11011/74/06 IA dated 13th June, 2006, J-11011/327/06 IA (II)(I) dated 25th April, 2007 and 29th May, 2008 & Integrated Steel Plant (5.0 MMTPA) alongwith Captive Power Plant (270 MW) vide letter no. J-11011/714/2008-IA II (I) dated 22nd December, 2008 for the specified products in the name of M/s Essar Steel (Hazira) Ltd. stands withdrawn and supersedes all the previous environmental clearances from the date of issue of this environmental clearance.

ii. The gaseous emissions form the various units shall conform the load/mass based standards notified by the Ministry on 19th May, 1993 and standards prescribed from time to time. The Gujarat Pollution Control Board (GPCB) may specify more stringent standards from the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective shall not be restarted until the control measures are rectified to achieve the desired efficiency.

iii. Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks for all the parameters (SPM, SO_2 and NO_X including CO) and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm^3 and data shall be submitted to Ministry's Regional Office at Bhopal, CPCB and GPCB.

iv. Electrostatic precipitator (ESP) to Pellet Plant, high efficiency ventury scrubber (auxiliary) to Hot Briquetted Iron (HBI) Plant, wet type double ventury scrubber to gas cleaning system of Blast Furnace (BF) and bag filters shall be provided to coal blending section, dry coal screen house, cast house, stock house, lime kiln etc. shall be provided to control gaseous emissions within the permissible limit. The flue gas emission through stacks attached to

the boiler, furnace and heater shall conform to the standards prescribed by the GPCB and data shall be submitted to Ministry's Regional Office at Bhopal, CPCB and GPCB.

iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iv. In-plant control measures for controlling fugitive emissions from spillage/raw material handling shall be provided. Further, specific measures like water sprinklers/bag filters/cyclone dedusting system shall be provided to raw material handling section, transfer points, conveyors and hoppers, curtains etc. Suitable enclosures, dust collection system and water sprinkling on haul roads shall be provided to control fugitive emissions. Dust from the induction furnace shall be collected in the hoods and dusty air will be cleaned by using cyclone and venturi scrubber. Fume extraction system with bag filters shall be provided to Steel Melting Shop (SMS) and caster steel plant (CSP). Dedusting system with bag filters shall be provided to cast house, stock house, coal injection system, hot metal de-sulphurization mixer of BF. Data on fugitive emissions shall be regularly monitored and records maintained.

v. Gaseous emission levels including secondary fugitive emissions from blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed. The emission standards issued by the Ministry in May, 2008 for the sponge plants shall be followed.

vi. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

vii. Total water requirement from Singanpore Weir shall not exceed 1,00,838 m^3/day. No ground water shall be used. Separate drains for domestic, process, storm water shall be provided in consultation with GPCB. All the other effluents shall be treated in plant-wise independent wastewater treatment system. BF-GCP and coal washery water shall be treated in thickener and used in the pig casting machine. Acidic and alkaline effluent from DM water plant shall be neutralized and reused in the plant through ash pond. Oil traps shall be provided to remove oil and grease. All the wastewater from process shall be treated and recycled and reused for ash handling, dust suppression and green belt development. The domestic wastewater shall be treated in sewage treatment plant (STP) and treated wastewater after conforming to the prescribed standards shall be used for green belt development.

viii. An effort shall be made not to discharge any treated wastewater outside the premises and adopt 'Zero' effluent discharge. An effort shall also be made to recycle and reuse the maximum treated wastewater in the process itself to reduce quantity of water consumption and effluent discharge into Tapi estuary. Only excess treated wastewater after meeting the norms of Gujarat

Pollution Control Board or as mentioned in E(P) Act, whichever are more stringent, shall be discharged to Tapi Estuary through RCC Pucca Channels.

ix. Prior permission for the drawl of 1,00,838 m^3/day water from Singanpore Weir from the concerned department shall be obtained.

x. The water consumption shall not exceed 16 m^3/Ton of Steel as per prescribed standard.

xi. Ground water monitoring around the solid waste disposal site/secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhopal, CPCB and GPCB.

viii. All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else. Lime/dolime fines, mill scales, iron ore fines, DRI Fines, scale, sinter dust etc. shall be used in Sinter Plant. Blast furnace slag shall be granulated and granulated slag, BF & Corex slag shall be provided to cement manufacturers for further utilization. As proposed, an effort shall also be made to manufacture tiles from the slag. All the other solid wastes including EAF slag and broken refractory mass shall be properly disposed off in environment-friendly manner. Used lube oil and oily waste shall be provided to authorized recyclers / reprocessors.

ix. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

x. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB.

xi. As proposed, green belt for adequate width and density shall be provided in at least 33 % of plant area and along the boundary wall of the site as per the CPCB guidelines.

xii. The company shall undertake rainwater harvesting measures by collecting the rainwater through drains. The water collected shall be connected to raw water pipeline for reuse in the plant. The company shall provide proper drainage system for rainwater to prevent water logging within and in the vicinity of the plant.

xiii. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector shall be implemented and progress report shall be submitted to MOEF/CPCB.

xv. Environmental Clearance under CRZ Notification, 1991 and subsequent amendments shall be obtained for Deep Draught Berth (550 meter Jetty

along with channel) prior to commencement of the construction activities and the copy of environment clearance accorded shall be submitted.

xiii. Natural gas in Corex plant, Steel melting shop, Caster shop, Long product mill and Lime plant shall be used. No coke oven plant shall be installed.

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

B. GENERAL CONDITIONS

i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB) and the State Government.

ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forest.

iii. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO_2 and NO_X are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and GPCB/CPCB once in six months.

iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.

v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EPA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

vii. As mentioned in the EIA/EMP, Project authorities shall ensure judicious utilization of Rs. 135.00 Crores and 13.00 Crores earmarked towards capital cost and recurring cost/annum for the environmental pollution control to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government. An implementation schedule for complying with all the conditions stipulated herein shall be submitted to the

Regional Office of this Ministry at Bhopal / CPCB / GPCB. The funds so provided shall not be diverted for any other purposes.

viii. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.

ix. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhopal, the respective Zonal Office of CPCB and the GPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

x. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the GPCB. The Regional Office of this Ministry at Bhopal / CPCB / GPCB shall monitor the stipulated conditions.

xi. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.

xii. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the GPCB and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.

xiii. Project authorities shall inform the Regional Office at Bhopal as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

Yours faithfully,

(Dr. P.L. Ahujarai)
Scientist 'F'

Copy to:

1. The Secretary, Department of Environment and Forests, Government of Gujarat, Gandhinagar, Gujarat.
2. The Chief Conservator of Forests (Central), Ministry of Environment and Forests, Regional Office, (West), Link Road No. 3, E-5, Arera Colony, Bhopal – 462 016. (M.P.)
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110 032.
4. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10-A, Gandhinagar, Gujarat -382010.
5. Adviser, IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003.
7. Guard File.
8. Monitoring File.
9. Record File.

(Dr. P.L. Ahujarai)

Scientist 'F'

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Annexure 1

List of Facilities/ Products & the Capacities

S. N.	Plant Facilities	Final capacity (TPA)
A	**Pellet Plant**	
1.	Pellets	40,00,000
B.	**HBI / DRI Plant (1 Nos.)**	
1	HBI / DRI	18,50,000
2.	Iron Ore Fines	2,68,000
C.	**COREX Plant (2 Nos.)**	
1	Hot Metal	17,00,000
2	Granulated Slag	5,10,000
3	Granulated Pig Iron	68,292
D	**Blast Furnace(2 Nos. replace with 1 No.)**	
1.	Hot Metal	20,40,000
2.	Granulated Slag	6,12,000
D.	**Steel Melt Shop (4 EAF & 4 LF)**	
1.	Liquid steel	50,00,000
2.	Slag	10,00,000
3.	Iron fines	62,400
E.	**Caster Shop (4 Slab & 2 Billet Casters)**	
1.	Slabs from Slab Caster	49,00,000
2.	Billets from Billet Caster	23,70000
F.	**Addition of CSP Hot Rolling Mill with Long Product Mill**	
1.	Rebar	15,99,996
1.	Wire Rod	6,99,996
2.	HRC	35,00,000
3.	Mill Scale	1,20,000
G.	**Lime Plant (3 Nos.)**	
1.	Lime / Dolime	4,50,000
2.	Lime stone / dolomite chips	1,10,000
3.	Lime Fines	30,000
4.	Off grade lime / dolime	10,000
H.	**Oxygen Plant (4 Nos.)**	
1.	Oxygen Gaseous Nm^3/hr	3,09,000
2.	Nitrogen Nm^3/hr	72,000
3.	Argon Nm^3/hr	2,000

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F. No. J-11011/381/2014-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi - 110003
E-mail: satish.garkoti@nic.in
Tel: 011- 24695316

Dated: 8th/9th March, 2016

To

M/s. Essar Steel India Limited
Hazira industrial area, Village Hazira,
Tehsil Choryasi, District Surat,
Gujarat-394270

Subject: Replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility in the existing integrated steel plant of M/s. Essar Steel India Limited located in Hazira Notified industrial area, Village Hazira, Tehsil Choryasi, District Surat, Gujarat - Environment Clearance regarding.

Sir,

This has reference to your online application no. IA/GJ/IND/28742/2014 dated 25th June, 2015 along with copies of EIA/EMP report seeking Environment Clearance under the provisions of the EIA Notification, 2006 for the project mentioned above and subsequent letter No. ESTIL/ENV/JP/EC/11-15 dated 9th November, 2015. The ToRs to the project was awarded by Ministry of Environment, Forest and Climate Change vide letter No. J-11011/381/2014-IA.II (I) dated 12th February, 2015 for preparation of EIA/EMP report.

2.0 Based on the TORs prescribed to the project; the project proponent submitted an application for environmental clearance to the Ministry online on 02.08.2015. The project was appraised by the Expert Appraisal Committee (Industry) during its meeting held on 03.09.2015 and desired to revise the EIA & EMP report. The revised EIA & EMP report was received by the Ministry on 09.11.2015.

3.0 The proposal is for replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility. Details of existing and proposed configuration, production facilities and products are as follows.

Recd on 22/03/16

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No.	Name of Production Unit/Products	Unit	Capacity			Status of Existing Units
			Existing	Proposed	Total	
1.	HBI Plant (DRI Mod. I to VI)	MTPA	7.83	-4.0	3.83	Only Mod V & VI are in operation.
2.	Blast Furnace	MTPA	2.04	3	5.04	In operation
3.	Sinter Plant	MTPA	1.48	7	8.48	In operation
4.	Coke Oven (Recovery Type)					
	Gross Coke	MTPA	1.2	1.35	2.55	Under construction.
	Crude tar (by-product)	TPA	52,200	63,000	1,15,200	
	Sulphur (by-product)	TPA	1,700	1,980	3,680	
	Crude Benzol (by-product)	TPA	0	18,243	18,243	
	Naphthalene	TPA	130	0	130	
5.	Air Separation					
	Oxygen Gaseous	Nm^3/hr	3,60,544	64,200	4,24,744	In operation
	Oxygen liquid		2,950	500	3,450	
	Nitrogen		1,19,944	25,700	1,45,644	
	Argon		3,470	1,500	4,970	
6.	Steel Melt Shop-1(EAF) (4 Nos)	MTPA	4.6	- 4.6	0	In operation (Partial)
7.	Basic Oxygen Furnace (BoF) (3 Nos)	MTPA	0	4.6	4.6	Proposed
8.	Steel Melt Shop-2 (4 EAF & 4 LF)	MTPA	5.0	0	5.0	In operation
9.	Corex Plant (2 Nos)	MTPA	1.7	0	1.7	In operation
10.	Lime Plant (Lime /Dolime)	MTPA	0.93	0	0.93	In operation
11.	CPP	MW	31	0	31	In operation (Partial)
		MW	48	0	48	Not yet established
		MW	525	0	525	Not in operation
12.	Plate Mill	MTPA	1.5	0	1.5	In operation
13.	Pellet plant	MTPA	4.0	0	4.0	Not yet established

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No.	Name of Production Unit/Products	Unit	Capacity			Status of Existing Units
			Existing	Proposed	Total	
14.	CSP, Hot Rolling Mill & Long Product - HRC	MTPA	3.5	0	3.5	In operation
	Rebar		1.6	0	1.6	Not yet established
	Wire Rod		0.7	0	0.7	
15.	Caster Shop					
	Slabs from slab caster	MTPA	4.9	0	4.9	In operation
	Billets from Billet caster		2.37	0	2.37	Not yet established
16.	CRM					
	Hot Rolled Pickled Coils/Sheets	MTPA	1.5	0	1.5	In operation
	CR Coils/Sheets		1.3	0	1.3	
	Galvanized Coils/Sheets		0.65	0	0.65	
	Coated Sheets/Coils		0.1	0	0.1	
17.	Extension of Existing Jetty	Meters	734	0	734	In operation
18.	Waste Heat Recovery Based Power Plant	MW	25	20	45	In operation
19.	Pipe Mill					
	H Saw Pipes	MTPA	0.15	0	0.15	In operation
	L Saw Pipes	MTPA	0.33	0	0.33	

4.0 The total land required for the project is 50.163 ha. The proposed replacement will be carried out in the existing units after dismantling and at other vacant areas. No additional land will be acquired. No forest land involved. The topography of the area is flat and reported to lies between 21^0 6'15.07" to 21^0 7'26.78" N Latitude and 72^0 38'28.24" to 72^0 39'1.29" E Longitude in Survey of India topo sheet No. F43M12, at an elevation of 9 m AMSL. The Tapi River passes adjacent to the project area. It has been reported that no modification/diversion in the existing natural drainage pattern at any stage has not been proposed. It has been reported that Dumas Reserved Forest is located towards south-east direction of the project.

5.0 The targeted production capacity of the plant will not be increased and remained 9.6 million TPA. The ore in the form of DR and BF Grade Pellets for the plant would be procured from Essar's Pelletization plant located at Visakhapatnam & Paradeep, Calibrated Lump Ore would be procured from NMDC mines in Kirandul, District Dantewada, Chhattisgarh and Oxide Fines would be procured from Goa, Orissa and NMDC mines in Kirandul. The ore transportation will be done through sea route. The details of raw material is as under:

No.	Name of Raw Material	Requirement (MTPA)			Source	Mode of Transpor-tation
		Existing	Proposed	Total		
1	DR Grade Pellets	83,91,000	- 44,03,000	39,88,000	**Essar's Pelletization Plant located at Visakhapatnam & Paradeep**	Sea Route
2	BF Grade Pellets	45,00,000	1,72,000	46,72,000		
3	Calibrated Lump Ore	21,65,000	- 11,47,000	10,18,000	NMDC mines in Kirandul, Dist Dantewada, CG.	Sea Route
4	Oxide Fines	6,12,000	52,18,000	58,30,000	Goa, Orissa, NMDC mines in Kirandul	Sea Route
	Total Iron Bearing material	1,56,68,000	-1,60,000	1,55,08,000	-	-

6.0 The ground water table reported to ranges between 0.80 m to 9 m below the land surface during the post-monsoon season and 2 m to 6 m below the land surface during the pre-monsoon season. Water for the project is/will be sourced from Tapi River at Variav, 31 km upstream from Hazira.

7.0 The water requirement of the project is estimated as 1,375 m^3/hr, while total water requirement for the facilities/unit to be dismantled (HBI / DRI Modules I to IV and EAF 4 nos.) is around 1,400 m^3/hr. Total water requirement of complex will be 8,499 m^3/hr. Entire water is being sourced from existing water source i.e. Tapi River at Variav, 31 km upstream from Hazira. The power requirement of the project is estimated as 101MW. Total power for the facilities/unit to be dismantled (HBI/DRI Modules I to IV and EAFs 4 nos.) is around 330 MW. Total power requirement of complex will be 623 MW. Power is being sourced from 400 KV transmission tower line.

8.0 Solid waste to the tune of 85,21,352 MTPA will be generated due to the project, out of which 38,50,852 MTPA will be used as raw material within steel complex, 15,52,000 MTPA will be used for land filling and road construction, 23,52,000 will be sent to cement plant and 7,66,500 MTPA will be sold to authorized party. It has been informed that 49,247 MTPA of hazardous waste will be generated due to the project, out of which 17,600 MTPA will be used in sinter plant as iron bearing material by the way of micro pellets or disposal at GPCB approved TSDF site, 3,079 MTPA will be sold to registered re-refiners, 15,090 nos./MTPA will be sent to authorised recyclers/reprocessors, 11,138 MTPA will be disposed at GPCB approved CHWIF and 2,340 MTPA will be Sold to authorized recyclers. It has been reported that an area of 159 ha is already developed as green belt and envisaged

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additional 93 ha to be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

10.0 The Public hearing is exempted for the proposed project as it is located within the notified Hazira industrial area.

9.0 The capital cost of the project is Rs. 8,097 Crores and the capital cost for environmental protection measures is proposed as Rs. 1,543 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 185.85 Crores. The proponent has mentioned that there is no court case to the project or related activity.

10.0 The matter was considered by the Expert Appraisal Committee (Industry-I) in its 2nd meeting held on 28th -30th December, 2015. After detailed deliberations, the EAC (I) recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of Environmental Clearance.

11.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant Environmental Clearance to the above mentioned proposal of Replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility in the existing integrated steel plant of M/s. Essar Steel India Limited under the provision of EIA Notification dated 14th September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.

ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 and installing energy efficient technology.

iii. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development.

iv. All the coal fines and char shall be utilized within the plant and no char shall be used for briquette making or disposed off anywhere else. Scrap shall be used in steel melting shop (SMS) and SMS slag and kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

v. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.

vi. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.

vii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

viii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

ix. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

x. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

xi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.

xii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.

xiii. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activities, its proper utilization and disposal.

xiv. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.

xv. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.

xvi. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.

xvii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.

xviii. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

xix. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to being into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

xx. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

xxi. The project proponent shall provide for LED lights in their offices and residential areas.

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

B. GENERAL CONDITIONS:

i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board and the State Government.

ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).

iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM_{10}, $PM_{2.5}$, SO_2 and NO_X are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and the SPCB/CPCB once in six months.

iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.

v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).

vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.

viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhopal. The funds so provided shall not be diverted for any other purpose.

x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.

xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects

shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhopal / CPCB / SPCB shall monitor the stipulated conditions.

xiii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Bhopal by e-mail.

xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEFCC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhopal.

xv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

14.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

09/3/2016

(Dr. Satish C. Garkoti)
Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Government Gujarat.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.

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3. The Chairman, Gujarat State Pollution Control Board, 4, Paryavaran Bhavan, Opp. Bij Nigam, CHH Road, Sector 10A, Sector 10, Gandhinagar, Gujarat 382010.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal – 462016.
5. Guard File / Record File/Monitoring file.

(Dr. Satish C. Garkoti)
Scientist 'F'

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ANNEXURE R - 5/6

U/C

ESSAR
STEEL

G.P.C. Board
SURAT.
RECEIVED COPY
Sign
Date 13-8-2020

July 29, 2020

GPCB ID:22968

To,
Unit Head – Surat
Gujarat Pollution Control Board
Sector – 10 A, Gandhinagar

Essar Steel India Limited
Hazira - 394 270
Gujarat
india

Corporate Identity Number:
U27100GJ1976FLC013787

T +91 261 668 2400
F +91 261 668 5544
www.essar.com

Sub: Extension of CCA – Renewal Validity and Corrections in Granted CCA by Board

Ref: CCA No. AWH –107721, dated 07/04/2020(GPCB ID:22968)

Dear Sir,

With reference to the mentioned CCA, we would like to bring to your attention on the below points.

We had applied for CCA-Renewal via Application No. 170162 dated 14/02/2020 for a period of 5 Years. We had paid the CCA fee also for 5 years as per the fee receipt attached as **Annexure – 1A**. We were granted CCA-Renewal for a period of 06 months (till 30/9/2020) only as per attached CCA in **Annexure 1B**. We hereby request the board to extend our CCA to the full five years till year 2025.

We would also like to bring your kind attention to the discrepancies in the granted CCA as mentioned in below table:

Condition No.	As per Granted CC&A (AWH – 107721)	As per Application data
	Granted	**Applied**
	Specific Conditions	
1	Unit shall maintain Zero Discharge of Waste Water. The evaporator shall be adequate to maintain Zero Liquid Discharge	The final treated effluent is recycled to maximum extent & rest is discharged into estuary zone of river Tapi / through closed pipeline. **Hence this condition is not applicable to us. We request you to remove the same.**
4.	**Condition under Air Act**	
4.1	Quantity of NGL/Naphta is missing in Fuel (Sr. No. 1)	**Fuel** / **Quantity** 1 Gas Fired Reheating Furnace NG/Corex Gas or **NGL/Naptha** — 19,000 Nm3/Hr or **15 MT/Hr** 2 Heat Treatment Furnace NG — 7694 Nm3/Hr APC tag and last granted CCA No. 64237 dated 14/08/2014 is attached as **Annexure-2.**

07/08/2020
Gujarat Pollution Control Board
Sector No. 10 A,
Gandhinagar - 382 010.

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<table>
<tr>
<td>4.3</td>
<td>Stack No. 5) Cold Leveller De-Dusting System

<table>
<tr><th>Parameters</th><th>Permissible Limits</th></tr>
<tr><td>PM
SO2
NOx</td><td>150 Mg/Nm3
100 ppm
50 ppm</td></tr>
</table>
</td>
<td>For Cold Leveler De-dusting, only Particulate matter emission PM is there. Hence please remove SO2 and NOx from parameter list.

APC tag and last granted CCA No. 64237 dated 14/08/2014 is attached as Annexure-2.</td>
</tr>
<tr>
<td>4.3</td>
<td>All Stacks given name as “Plant Mill” in bracket.</td>
<td>Please correct the names to “Plate Mill”</td>
</tr>
</table>

We request you to do the needful in extending our CCA for 05 years and also do the corrections in the same as mentioned above

Thanking you.
For **M/s. Essar Steel India Limited (Plate Mill Division)**

Authorized Signatory
Encl: a/a
CC: Regional Officer, GPCB – Surat

ESSAR STEEL INDIA LTD. ESSAR * HAZIRA *

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HRC Division Consolidated Consent & Authorization (CCA)

Consent Order No. AWH 107719
dated. 07.04.2020

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GPCB

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

CCA-Amendment

BY R.P.A.D.

NO: GPCB/CCA-SRT-340 (15)/ID_20680/ 587320 **Date:-** 07/04/2024

To:
M/s. ArcelorMittal Nippon Steel India Limited(HRC Division)
Plot No: 203-230, 245-264, 312-321,
@ 27 KM. Surat-Hazira Road,
Surat-394270,
Tal: Chorasi, Dist: Surat.

Sub : Amendment in the consolidated consent & Authorization of the Board.
Ref: CCA-Renewal vide order No. AWH-107719 Dated of issue : 07/04/2020

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986, The Board has granted CCA vide order No. AWH-107719 Dated of issue : 07/04/2020 valid upto 30/09/2020 with specific conditions mentioned therein.

The Board has right to review and amend the conditions of the said CCA Order.

1. The validity of the above referred CCA-Renewal is extended up 31/12/2024 instead of dated 30/09/2020.

2. The name of unit shall be read as **M/s. ArcelorMittal Nippon Steel India Limited (HRC Division)** instead of **M/s. Essar Steel India Limited (HRC Division)**

3. The rest of the conditions of the above referred CCA–Renewal shall remain unchanged. You are directed to comply with these conditions.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(G.H. Trivedi)
Deputy Chief Environmental Engineer

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GPCB

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **170160 dated 14-02-2020** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)
To,
M/s. Essar Steel India Limited (HRC Division)
Plot No: 203-230, 245-264, 312-321,
@ 27 KM. Surat-Hazira Road,
Surat-394270,
Tal: Chorasi, Dist: Surat.

1. **Consent Order No. AWH-107719 Date of issue: 07-04-2020.**

2. The consents shall be **valid upto 30-09-2020** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Plant Name	Product /By Products	Capacity MT/Month
1	HBI (Module I-V)	HBI	4,98,333
		Iron Ore Fines	68,604
		LPG	5400
2	HRC Plant (EAF, Caster , HSM, SC)	HR Coils	3,75,000
		Mill Scale	12,050
		Slag	98000
		Iron Fines	6000
3	Lime Plant	Lime	40,400
		Lime Fines	8000
		Lime Stone/Dolomile Chips	10590
		Off Grade Lime/ Dolime	720
4	Oxygen Plant	Oxygen (Gaseous)	371120000
		Oxygen (Liquid)	21240000
		Nitrogen (gaseous)	34520000
		Argon	1058400
5	CRM	Hot Rolled Pickled Coils/ Sheets	1,70,000

		Cold Rolled Coils/Sheet	1,08,334
		Galvanized Sheet/Coils	54,167
		Coated Sheet/Coils	8334
		Specnt Acid (M^3/Day)	2100
		Iron Oxide	1050
6	CPP-31 MW	Captive Power (MU/Day	744 MWH (31 MW)
7	Extension of Existing Captive Jetty (734 Meters)		
8	Waste Heat Recovery Based Power Plant	Power	25 MW

Subject to specific condition:

1. **The applicant shall strictly comply with all condition/stipulated made in Environmental Clearance issued by Ministry of Environment and Forest,New Delhi in it order no- J-11011/74/2006-IA-II(I) Dated, 13/06/2006 and CRZ clearance for extension of existing captive jeety vide order no. II-65/2005-IA-III Dtd. 18/09/2006 respectively.**
2. **Industry shall strictly comply with all specific conditions mentioned in Environmnetal Clearance issued by Govt. of India, Ministry of Environment and Forest vide their letter No. J-11011/74/2006 IA-II(I). dtd. 13/06/2006.**
3. **The unit shall strictly observe and comply with conditions stipulation made in Environmental Clearance issued by MOEF, New Delhi in its order No:- J-11011/45/2004-IA-II(I) dtd, 07/11/2005.**
4. **The applicant shall strictly observe & comply with various stipulation imposed by MOEF, New Delhi in its Order no. J-11011/4/95-IA0II(I) dtd. 23/07/1992 & to submit compliance report thereof.**
5. **The applicant shall strictly observed & comply with all condition of Environmental Clearance granted by Ministry of Environment and Forest, vide letter no. J-13011/90/2006-IA-II(I) Dated, 20/04/2007.**
6. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
7. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilitiesto replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**
8. **Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.**
9. **The applicant shall strictly observed & comply with all condition of Environmental Clearance granted by Ministry of Environment and Forest, vide letter no. J-11011/4/1992-IA II (I), Dated:- 04/07/2005.**
10. **Applicant shall comply to the Standard Operating Procedure for acid reuse will be complied with judiciously.**
11. **Spent Acid After regeneration shall be reused in this.**

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3. CONDITIONS UNDER THE WATER ACT:

3.1. Source of water: - Borewell.
3.2. The quantity of the water consumption for industrial purpose shall not exceed 93966 KL/Day.
3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 2711 KL/Day
3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 19672 KL/Day, however discharge shall be within the consented quantity mentioned in consent of the whole plant.
3.5. The quantity of domestic waste water shall not exceed 1173 KL/Day.
3.6. (A) The applicant shall provide adequate effluent treatment system in order to achieve the quantity of the treated effluent as per GPCB norms mentioned below. (HBI & HRC Plant):

PARAMETERS	GPCB NORMS
PH	6.5 TO 8.5
Temperature	40° C
Colour (Pt. co. scale) inn units	100
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Phenolic Compounds	1 mg/l
Sulphides	2 mg/l
Ammonical Nitrogen	50 mg/l
Total Chromium	2 mg/l
Hexavelent Chromium	0.1 mg/l
BOD (5 days at 20^0C)	30 mg/l
COD	100 mg/l
Cyanides	0.2 mg/l
Fluorides	1.5 mg/l
Lead	0.1 mg/l
Copper	2 mg/l
Nickel	3 mg/l
Zink	5 mg/l

(B) CPP Plant:-

Boiler Blow Down:-	
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Total Copper	1.0 mg/l
Total Iron	1.0 mg/l
Cooling Water Blow Down:-	
Free Available Chlorine	0.5 mg/l
Zinc	1.0 mg/l
Hexavalent Chromium	0.1 mg/l
Total Chromium	0.2 mg/l
Phosphate	5.0 mg/l
Combined Effluent:-	
PH	6.5 To 8.5
Suspended Solids	100 mg/l

Oil and Grease	10 mg/l
Total Copper	1.0 mg/l
Total Iron	1.0 mg/l
Zinc	1.0 mg/l
Hexavalent Chromium	0.1 mg/l
Total Chromium	0.2 mg/l
Phosphate	5.0 mg/l

3.7. The Final treated effluent confirming to the above standards shall be discharged into Estuary Zone of river Tapi through closed pipe through one outlet only.

3.8. Domestic effluent @ 380 M^3/day shall be disposed off through septic tank/ soak pit system & @782 M^3/day shall be treated separately to confirm to the following standards and utilized on land for plantation or gardening within the factory premise.

BOD (5 days at 20^0C)	Less than 20 mg/l
Suspending Solids	Less than 30 mg/l
Residual Chlorine	Minimum 0.5 mg/l

3.9. Domestic effluent shall be disposed off through septic tank/soak pit system.

3.10. Domestic effluent shall be disposed off through septic tank/soak pit system.

4.CONDITIONS UNDER THE AIR ACT:

4.1. The following shall be used as a fuel.

Sr. No.	Fuel	Quantity
1	**HBI (Mod-I-V):**	
	NG (Sm^3/Day)	5610173
	LPG	932 TPD
	Naptha/ NGL	376 TPD
	HRC: (Lime plant , RHF, Boiler)	
	NG (Sm^3/Day)	9312164
	NGL/Naptha	7507 TPD
	CRM:	
	NG (Sm^3/Day)	194568
	CPP:- 31 MW:	
	NG (Sm^3/Day)	192000
	NGL/Naptive	168 TPD

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached shall conform to the following standards:

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Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
(A) HRC Plant:-					
1.	Boiler of HRC Plant	30	----	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
2.	Heat Recovery Steam Generator (HRSC)-31 MW	60	Tall Chimney	Particulate Matter SO_2 NO_x	10 mg/Nm^3 10 ppm 80 ppm
3.	Reheating Furnace I	88.5	----	Particulate Matter SO_2 NO_x	100 mg/Nm^3 40 ppm 125 ppm
4.	Reheating Furnace II	88.5	----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 40 ppm 125 ppm
5.	Electric Arc Furance I & II	45	FES System 1 & 2 with Bag Filter	Particulate Matter	80 mg/Nm^3
6.	Electric Arc Furance III	45	FES System with Bag Filter	Particulate Matter	80 mg/Nm^3
7.	Electric Arc Furance IV	45	FES System with Bag Filter	Particulate Matter	80 mg/Nm^3
8.	Normalizing Furance	30	----	Particulate Matter SO_2	80 mg/Nm^3 40 ppm
(B) CRM Plant:-					
1	Boiler No. 1 & 2 of CRM	30	-----	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
2.	Batch Annealing Furnace (BAF)	20	----	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
3.	Heat Recovery Steam generator (HR SG) –	60	----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 50 ppm 190 ppm

	25 MW Waste Heat Recovery Based Power Plant				

4.4. There process emission through various stack/vent of reactor, process shall confirm to the following standards

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
(A) HBI Plant:-					
1.	HBI Performer cum Recuperator I	30	Venturi Scrubber	PM	50 mg/Nm^3
2	Reformer cum Recuperator II	30	Venturi Scrubber	PM	50 mg/Nm^3
3	Reformer cum Recuperator III	30	Venturi Scrubber	PM	50 mg/Nm^3
4.	Reformer cum Recuperator IV	40	Venturi Scrubber	PM	50 mg/Nm^3
5	Reformer cum Recuperator V	40	Venturi Scrubber	PM	50 mg/Nm^3
6	HBI Process Dust Collection System (PDCS) I	20	Venturi Scrubber + Hydro cyclone	PM	40 mg/Nm^3
7	PDCS II	20	Venturi Scrubber + Hydro cyclone	PM	40 mg/Nm^3
8	PDCS III	20	Venturi Scrubber + Hydro cyclone	PM	40 mg/Nm^3
9	PDCS IV	20	Venturi Scrubber + Hydro cyclone	PM	40 mg/Nm^3
10	PDCS V	25	Venturi Scrubber + Hydro cyclone	PM	40 mg/Nm^3
(B) Lime Plant:-					
1	Lime Plant Kiln I	45	Bag Filter	PM	150 mg/Nm^3
2	Lime Plant Kiln II	45	Bag Filter	PM	150 mg/Nm^3
3	Lime Plant Kiln III	45	Bag Filter	PM	150 mg/Nm^3
4	Lime Plant Kiln IV	45	Bag Filter	PM	150 mg/Nm^3

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(c) CRM Plant:-					
1	HCl Scrubber attached to Pickling operation (Line 1)	25	HCL Scrubber	HCL	20 mg/Nm^3
2	HCl Scrubber attached to Pickling operation (Line 2)	25	HCL Scrubber	HCL	20 mg/Nm^3
3	HCl Fume Scrubber attached to Acid Regeneration Plant (ARP)	25	HCL Scrubber	HCL	20 mg/Nm^3
4	Fume Extraction System Attached to Cold Rolling Mill (Line 1)	30	FES System	SO_2 NO_x	40 mg/Nm^3 25 mg/Nm^3
5	Fume Extraction System Attached to Cold Rolling Mill (Line 2)	30	FES System	SO_2 NO_x	40 mg/Nm^3 25 mg/Nm^3
6	Gas scrubber attached to Galvanizing operation (Line 1)	30	Gas Scrubber	SO_2 NO_x	40 mg/Nm^3 25 mg/Nm^3
7	Gas scrubber attached to Galvanizing operation (Line 1)	20	Gas Scrubber	SO_2 NO_x	40 mg/Nm^3 25 mg/Nm^3
(d) Pickling Plant:-					
1	Pickling Line	30	Water Scrubber	HCL	20 mg/Nm^3

4.5. Industry shall take adequate measure to control dusting due to storage, transportation & handling of Coal/Lignite & fly ash.

4.6. Industry shall comply with Coal handling guideline of the Board.

4.7. Industry shall comply with fly ash notification 1999 as amended from time to time.

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4.8. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT (Microgram/M^3)	
	Annual	24 Hrs Average
Particulate Matter-10 (PM_{10})	60	100
Particulate Matter- 2.5 ($PM_{2.5}$)	40	60
SO_2	50	80
NO_x	40	80

4.9. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.10. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

5. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

5.1 Authorization order No:- **AWH-107719** date of Issue: **07-04-2020.**

5.2 **M/s. Essar Steel India Limited (HRC Division).** is hereby granted an authorization to operate facility of below for following hazardous wastes on the premises situated at **Plot No: 203-230, 245-264, 312-321, @ 27 KM. Surat-Hazira Road, Surat-394270, Tal: Chorasi, Dist: Surat.**

Sr. No.	Waste	Quantity MT/Year	Schedule-I/ Category	Facility
1	Chemical Sludge from waste water treatment	2900 MT/year	35.3	Collection, Storage, Transportation and disposal at GPCB authorized TSDF Site.
2	Used or Spent Oil	1443 KL/Year	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.
3	Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	7265 Nos/Year	33.1	Collection, storage transportation and disposal to authorized decontaminator
4	Spent ion exchange resin containing metals	11,138 Nos/Y	35.2	Collection, Storage, Transportation and disposal at CHWIF.
5	Zinc Dross	195 MT/Month	Schedule-IV (15)	Send to authorized recycler who has obtained

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				authorization from the Board under rule 9 of Hazardous and other waste (Management & Transboundary) Rules,2016

5.3 The authorization shall be valid up to **30-09-2020.**

5.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

5.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.5.2 to the industry having valid CCA of this Board.

6. TERMS AND CONDITIONS OF AUTHORISATION

1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.

15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.
16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

7. **SPECIFIC CONDITIONS:-**

7.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
7.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
7.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
7.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
7.5. Unit shall comply provisions of E-Waste Management Rules-2016.
7.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
7.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding **ninety days**. Prior permission of the Board shall be obtained for extension of the storage period.
7.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.
7.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

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8. **GENERAL CONDITIONS: -**

8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
8.2. Applicant shall also comply with the general conditions given in annexure I.
8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.
8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

For and on behalf of
Gujarat Pollution Control Board

((N.M Tabhani)
Deputy Chief Environment Engineer

NO: GPCB/CCA-SRT-340(14)/ID_20680/ 562541 **Date:-** 19/06/2020

Issued to:
M/s. Essar Steel India Limited (HRC Division)
Plot No: 203-230, 245-264, 312-321,
@ 27 KM. Surat-Hazira Road,
Surat-394270,
Tal: Chorasi, Dist: Surat.

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Plate Mill Division Consolidated Consent & Authorization (CCA)

Consent Order No. AWH 107721
dated. 07.04.2020

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CCA-Amendment

BY R.P.A.D.

NO: GPCB/CCA-SRT-1162(2)/ID_22968/ 586882 **Date:-** 25/03/2021

To:
M/s.. ArcelorMittal Nippon Steel India Limited (Plate Mill Division)
Surat-Hazira Road,
Post Hazira-394270,
Tal: Chorasi, Dist: Surat..

Sub : Amendment in the consolidated consent & Authorization of the Board.
Ref: CCA-Renewal vide order No. AWH-107721 Dated of issue : 07/04/2020

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986, The Board has granted CCA vide order No. AWH-107721 Dated of issue : 07/04/2020 valid upto 31/12/2024 with specific conditions mentioned therein.

The Board has right to review and amend the conditions of the said CCA Order.

1. The validity of the above referred CCA-Renewal is extended up 31/12/2024 instead of dated 30/09/2020.
2. The name of unit is read as **M/s. ArcelorMittal Nippon Steel India Limited (Plate Mill Division)** instead of **M/s. Essar Steel India Limited (Plate Mill Division)**
3. The rest of the conditions of the above referred CCA–Renewal shall remain unchanged. You are directed to comply with these conditions.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(G.H. Trivedi)
Deputy Chief Environmental Engineer

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R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **170162 dated 14-02-2020** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)
To,
M/s. Essar Steel India Limited (Plate Mill Division)
Surat-Hazira Road,
Post Hazira-394270,
Tal: Chorasi, Dist: Surat.

1. **Consent Order No. AWH-107721 Date of issue: 07-04-2020.**

2. The consents shall be **valid upto 30-09-2020** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Product	Quantity
1	Hot Rolled Plate	1,25,000 MT/Month
2	Mill Scale	3000 MT/Month

Subject to specific condition:

1. **Unit shall maintain zero discharge of wastewater. The evaporator shall be adequate to maintain zero liquid discharge.**
2. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
3. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**

3. CONDITIONS UNDER THE WATER ACT:

3.1. Source of water: - Tapi River.
3.2. The quantity of the water consumption for industrial purpose shall not exceed 10,000 KL/Day.
3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 30 KL/Day
3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 1920 KL/Day.

3.5. The applicant shall operate effluent treatment system efficiently so that treated effluent from the industrial unit shall conform to the norms mentioned below.

PARAMETERS	GPCB NORMS
PH	6.5 TO 8.5
Temperature	40° C
Colour (Pt. co. scale) inn units	100
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Phenolic Compounds	1 mg/l
Sulphides	2 mg/l
Ammonical Nitrogen	50 mg/l
Total Chromium	2 mg/l
Hexavelent Chromium	0.1 mg/l
BOD (5 days at 20°C)	30 mg/l
COD	100 mg/l
Cyanides	0.2 mg/l
Fluorides	1.5 mg/l
Lead	0.1 mg/l
Copper	2 mg/l
Nickel	3 mg/l
Zink	5 mg/l
Lron	3 mg/l

3.6. The final treated effluent shall conform to the above standards shall be recycled/re-circulated to maximum extent & rest shall be discharged into Estuary Zone of River Tapi through closed pipeline.

3.7. The quantity of domestic waste water shall not exceed 20 KL/Day.

3.8. Domestic effluent shall be disposed off through septic tank/soak pit system.

4. **CONDITIONS UNDER THE AIR ACT:**

4.1. The following shall be used as a fuel.

Sr. No.	Fuel	Quantity
1	Gas fired Reheating Furnace NG/Corex gas or NGL/Naptha	19,000 Nm^3/Hr
2	Heat treatment Furnace NG	7,694 Nm^3/Hr

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached to furnace shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
1	RHF-1 &2 (Plant Mill)	106	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm

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2	Normalizing Furnace (2 nos) (Plant Mill)	30	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
3	Austinising Furnace (2 nos) (Plant Mill)	30	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
4	Tempering Furnace (Plant mill)	30	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
5	Cold leveler De-dusting system (Plant Mill)	30	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm

4.4. There shall be no process emission from the manufacturing process as well as any other ancillary process.

4.5. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT (Microgram/M^3)	
	Annual	24 Hrs Average
Particulate Matter-10 (PM_{10})	60	100
Particulate Matter- 2.5 ($PM_{2.5}$)	40	60
SO_2	50	80
NO_x	40	80

4.6. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.7. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

5. **AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]**

Form for grant of authorization for occupier or operator handling Hazardous waste

5.1 Authorization order No:- **AWH-107721** date of Issue: **07-04-2020.**

5.2 **M/s. Essar Steel India Limited (Plate Mill Division).** is hereby granted an authorization to operate facility of below for following hazardous wastes on the premises situated at **Surat-Hazira Road, Post Hazira-394270, Tal: Chorasi, Dist: Surat.**

Sr. No	Waste	Quantity MT/Year	Schedule-I/ Category	Facility
1	Used Oil	330	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.

2	Empty barrels/containers/ liners contaminated with hazardous chemicals/ wastes	1650	33.1	Collection, storage transportation and disposal to authorized decontaminator

5.3 The authorization shall be valid up to **30-09-2020**.

5.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

5.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.5.2 to the industry having valid CCA of this Board.

6. **TERMS AND CONDITIONS OF AUTHORISATION**

1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty".
7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.

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16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

7. SPECIFIC CONDITIONS:-

7.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
7.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
7.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
7.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
7.5. Unit shall comply provisions of E-Waste Management Rules-2016.
7.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
7.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding ninety days. Prior permission of the Board shall be obtained for extension of the storage period.
7.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.
7.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

8. GENERAL CONDITIONS: -

8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
8.2. Applicant shall also comply with the general conditions given in annexure I.

8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.

8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.

8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.

8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

For and on behalf of
Gujarat Pollution Control Board

((N.M Tabhani)
Deputy Chief Environment Engineer

NO: GPCB/CCA-SRT-1162(2)/ID_22968/ 562513 **Date:-** 19/06/2020

Issued to:
M/s. Essar Steel India Limited (Plate Mill Division)
Surat-Hazira Road,
Post Hazira-394270,
Taf: Chorasi, Dist: Surat.

Power Division Consolidated Consent & Authorization (CCA)

Consent Order No. AWH 103579
dated. 19.08.2019

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GPCB

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, **Gandhinagar**-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

NO:GPCB/CCA-SRT-1599/ID-24199/ **Date:**

To,
M/s. ArcelorMittal Nippon Steel India Limited-Power Division
(Old name: M/s. Bhander Power Ltd. (Essar Group Co-525 MW))
Plot No: 353,354, 27 KM Surat-Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

Sub: Regarding correction in name of **M/s. Bhander Power Ltd. (Essar Group Co-525 MW)**
Ref: - 1. This office CCA **Order No. AWH-103579 issued on M/s. Bhander Power Ltd. (Essar Group Co-525 MW).**
2. Your letter for change in name of industry dated: 31/05/2021.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 3(c) & 5(5) of the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules-2008 & framed under the Environment (Protection) Act-1986, **The Board has granted CCA vide order No. AWH-103579 issued on 19/08/2019, valid up to 31/03/2024.** The Board has right to review and amend the conditions of the said CCA Order.

The referred CCA **order No. AWH-103579 issued on 19/08/2019** order originally issued to **M/s. Bhander Power Ltd. (Essar Group Co-525 MW), Plot No: 353,354, 27 KM Surat-Hazira Road, Hazira-394270, Tal: Chorasi, Distt Surat** Transfers to **M/s. ArcelorMittal Nippon Steel India Limited-Power Division** With condition that **M/s. ArcelorMittal Nippon Steel India Limited-Power Division** shall bind to comply with all the conditions subject to which it was granted as if consent was granted to this industry originally.

The rest of the conditions of the above referred CCA order shall remain unchanged. You are directed to comply these conditions judiciously.

For and on behalf of
Gujarat Pollution Control Board

Bhargava 18/8

(Smt. S.V.Bhargava)
Unit Head, Surat

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GUJARAT POLLUTION CONTROL BOARD
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By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **158189 dated 21-06-2019** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)

To,
M/s. Bhander Power Ltd. (Essar Group Co-525 MW)
Plot No: 353,354, 27 KM Surat-Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

1. **Consent Order No. AWH-103579 Date of issue: 19-08-2019.**

2. The consents shall be **valid upto 31-03-2024** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Product	Quantity
1	Power	525 MW

Subject to specific condition:

1. **Industry shall strictly comply with all specific conditions mentioned in Environmental Clearance issued by Govt. of India, Ministry of Environment and Forest vide their letter No. J-11011/74/2006 IA-II(I). dtd. 13/06/2006.**
2. **The unit shall strictly observe and comply with conditions. Stipulation made in Environmental Clearance issued by MOEF, New Delhi in its order No:- J-11011/45/2004-IA-II(I) dtd, 07/11/2005.**
3. **The applicant shall strictly observe & comply with various stipulation imposed by MOEF, New Delhi in its Order no. J-11011/4/95-IA0II(I) dtd. 23/07/1992 & to submit compliance report thereof.**

3. CONDITIONS UNDER THE WATER ACT:

3.1. Source of Water:- Tapi River.
3.2. The quantity of the water consumption for industrial purpose shall not exceed 17122 KL/Day.
3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 25 KL/Day.
3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 5980 KL/Day.
3.5. The quantity of domestic waste water shall not exceed 20 KL/Day.
3.6. Domestic effluent shall be disposed off through septic tank/soak pit system.
3.7. The applicant shall provide adequate effluent treatment system in order to achieve the quantity of the treated effluent as per GPCB norms mentioned below. (Which are applicable):

PARAMETERS	GPCB NORMS
PH	6.5 TO 8.5
Temperature	Not more than 5°C higher than the intake water temperature.
Colour (Pt. co. scale) inn units	100
Suspended Solids	100 mg/l
Oil and Grease	20 mg/l
Phenolic Compounds	1 mg/l
Sulphides	2 mg/l
Ammonical Nitrogen	50 mg/l
Total Chromium	2 mg/l
Hexavelent Chromium	0.1 mg/l
BOD (5 days at 20°C)	30 mg/l
COD	100 mg/l
Cyanides	0.2 mg/l
Fluorides	1.5 mg/l
Lead	0.1 mg/l
Copper	2 mg/l
Nickel	3 mg/l
Zink	5 mg/l

Boiler Blow Down:-	
Suspended Solids	100 mg/l
Oil and Grease	20 mg/l
Total Copper	1.0 mg/l
Total Iron	1.0 mg/l
Cooling Water Blow Down:-	
Free Available Chlorine	0.5 mg/l
Zin	1.0 mg/l
Total Chromium	0.2 mg/l
Phosphate	5.0 mg/l

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Combined Effluent:-	
PH	6.5 To 8.5
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Total Copper	1.0 mg/l
Total Iron	1.0 mg/l
Zinc	1.0 mg/l
Hexavalent Chromium	0.1 mg/l
Total Chromium	0.2 mg/l
Phosphate	5.0 mg/l

3.8. The Final treated effluent confirming to the above standards shall be discharged into Estuary Zone of river Tapi through closed pipe through one outlet only.

3.9. Domestic effluent shall be disposed off through septic tank/ soak pit system & shall be treated separately to confirm to the following standards and utilized on land for plantation or gardening within the factory premise.

BOD (5 days at 20^0C)	Less than 20 mg/l
Suspending Solids	Less than 30 mg/l
Residual Chlorine	Minimum 0.5 mg/l

4. CONDITIONS UNDER THE AIR ACT:

4.1. The following shall be used as a fuel in HRSG and GT.

Sr. No.	Fuel	Quantity
1	NG	25,00,000 Sm^3/day

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached to HRSG and GT shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
1.	HRSG-1	65	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3
2.	HRSG-2	65	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3
3.	HRSG-3	65	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3

4.	GT-1	30	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3
5.	GT-2	30	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3
6.	GT-3	30	Low NOX generating burners	Particulate Matter SO_2 NO_x	50 mg/Nm^3 200 mg/Nm^3 300 mg/Nm^3

4.4. There shall be no process emission from the manufacturing process as well as any other ancillary process.

4.5. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT (Microgram/M^3)	
	Annual	24 Hrs Average
Particulate Matter-10 (PM_{10})	60	100
Particulate Matter- 2.5 ($PM_{2.5}$)	40	60
SO_2	50	80
NO_x	40	80

4.6. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.7. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

6. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

6.1 Authorization order No:- **AWH-103579** date of Issue: **19-08-2019.**

6.2 **M/s. Bhander Power Ltd. (Essar Group Co-525 MW)** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **Plot No: 353,354, 27 KM Surat-Hazira Road, Hazira-394270, Tal: Chorasi, Dist: Surat.**

Sr. No.	Waste	Quantity MT/Year	Schedule-I/ Category	Facility
1	Used Oil	54	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.

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2	Empty barrels/containers/ liners contaminated with hazardous chemicals/ wastes	6	33.1	Collection, storage transportation and disposal to authorized decontaminator

6.3 The authorization shall be valid up to **31-03-2024.**

6.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

7. **TERMS AND CONDITIONS OF AUTHORISATION**

7.1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.

7.2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

7.3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.

7.4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.

7.5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

7.6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"

7.7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

7.8. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous and Other Waste Rules, 2016.

7.9. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

7.10. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

7.11. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.

7.12. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.

7.13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

7.14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.

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7.15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.

7.16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.

7.17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.

7.18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.

7.19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.

7.20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.

7.21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.

7.22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

8. GENERAL CONDITIONS: -

8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.

8.2. Applicant shall also comply with the general conditions given in annexure I.

8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.

8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.

8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.

8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

8.7. The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.

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8.8. In case of change of ownership/management the name and address of the new owners/ partners/directors/proprietor should immediately be intimated to the Board.
8.9. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p. no. 657 of 1995 dated 14th October 2003.

9. **SPECIFIC CONDITIONS:-**

9.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
9.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
9.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
9.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
9.5. Unit shall comply provisions of E-Waste Management Rules-2016.
9.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
9.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding **ninety days**. Prior permission of the Board shall be obtained for extension of the storage period.
9.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.
9.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

For and on behalf of
Gujarat Pollution Control Board

(Sushil Vegda)
Senior Environmental Engineer

NO: GPCB/CCA-SRT-1599/ID-24199/ 518864 **Date:-** 29/8/19

Issued to:
M/s. Bhander Power Ltd. (Essar Group Co-525 MW)
Plot No: 353,354, 27 KM Surat-Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

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PARYAVARAN BHAVAN
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Phone : (079) 23226295
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Website : www.gpcb.gov.in

CCA-Amendment

BY R.P.A.D.

NO: GPCB/CCA-SRT-1190(6)/ID_14186/587373 **Date: 01 / 04 /2021**

To:
M/s. Essar Steel India Ltd.(Conarc Division)
Plot No:- 200/1-7,200/9,200/10,200/12,201,202/1,202/2,203,204/1,204,
27 Km Surat-Hazira Road, Hazira:- 394270,
Tal:- Chorasi, Dist:- Surat.

Sub : Amendment in the consolidated consent & Authorization of the Board.
Ref: CCA-Renewal vide order No. AWH-108150 Dated of issue: 20/05/2020.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986, The Board has granted CCA vide order No. AWH-108150 Dated of issue: 20/05/2020 valid up to 30/09/2020 with specific conditions mentioned therein.

The Board has right to review and amend the conditions of the said CCA Order.

1. The validity of the above referred CCA-Renewal is extended up 31/12/2024 instead of dated 30/09/2020.

2. The name of unit shall be read as **M/s. ArcelorMittal Nippon Steel India Limited (Conarc Division)** instead of **M/s. Essar Steel India Limited (Conarc Division)**

3. The rest of the conditions of the above referred CCA–Renewal shall remain unchanged. You are directed to comply with these conditions.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(G.H. Trivedi)
Deputy Chief Environmental Engineer

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GPCB

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **170161 dated 14-02-2020** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)

To,
M/s. Essar Steel India Ltd. (Conarc Division)
Plot No: 200/1-7, 200/9, 200/10, 200/12,201,202/1,202/2,203,204/1,
27 Km Surat Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

1. **Consent Order No. AWH-108150 Date of issue: 20-05-2020.**

2. The consents shall be **valid upto 30-09-2020** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Product	Product/By Products	Quantity MT/Annum
1	Pellet Plant	Pellets	40,00,000
2	HBI/DRI Plant (1 no)	HBI/DRI	18,50,000
		Iron Ore Fines	2,68,000
3	Corex Plant (2 nos)	Hot Metal	17,00,000
		Granulated Slag	5,10,000
		Granulated Pig iron	68,292
4	Blast Furnace & Sinter Plant (2 nos. replace with 1 no)	Hot Metal	20,40,000
		Granulated Slag	6,12,000
5	Steel Melt Shop (4 EAF & 4 LF)	Liquid Steel	50,00,000
		Slag	10,00,000
		Iron Fines	62,400
6	Caster & Shop (4 Slab & 2 Billet Caster)	Slabs From Slab Caster	49,00,000
		Billets from Billet Caster	23,70,000
7	CSP & Hot Rolling Mill & Long Products Mill	HRC	35,00,000
		Mill Scale	1,20,000
		Rebar	15,99,996
		Wire Rod	6,99,996

8	Lime Plant (3 nos)	Lime/ Dolime	4,50,000
		Lime Stone/ Dolomite Chips	1,10,000
		Lime Fines	30,000
		Off Grade Lime/Dolime	10,000

Subject to specific condition:

1. **Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water and you shall strictly comply with condition of NOC granted from CGWA.**
2. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
3. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**
4. **Industry shall provide dedicated storage facility for fly ash.**
5. **Industry shall comply with fly ash notification 1999 as amended from time to time.**

3. **CONDITIONS UNDER THE WATER ACT:**

3.1. Source of Water:- Borewell.
3.2. The quantity of the water consumption for industrial purpose shall not exceed 118911 KL/Day.
3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 1800 KL/Day.
3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 27405 KL/Day.
3.5. The quantity of domestic waste water shall not exceed 1500 KL/Day.
3.6. The applicant shall provide adequate effluent treatment system so that effluent from the industrial unit shall conform to the GPCB norms mentioned below.

PARAMETERS	GPCB NORMS
PH	6.5 TO 8.5
Temperature	40° C
Colour (Pt. co. scale) inn units	100
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Phenolic Compounds	1 mg/l
Sulphides	0.5 mg/l
Ammonical Nitrogen	50 mg/l
Total Chromium	2 mg/l
Hexavelent Chromium	0.1 mg/l
BOD (5 days at 20^0C)	30 mg/l
COD	100 mg/l
Cyanides	0.2 mg/l
Fluorides	1.5 mg/l
Arsenic	0.2 mg/l

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Lead	0.1 mg/l
Copper	2 mg/l
Nickel	3 mg/l
Zink	5 mg/l
Chloride	600 mg/l
Sulphate	1000 mg/l
Bio-assay Test	90 % survival of fish after 96 hours in 100 % effluent

3.7. The Final treated effluent confirming to the above standards shall be reused in the plant and shall be utilized on own land for gardening and plantation purposes and shall not discharged treated wastewater in to surroubding environment.

3.8. Domestic effluent shall be disposed off through septic tank/ soak pit system or it shall be treated along with industrial effluent or shall be treated separately to confirm to the following standards and utilized on land for plantation or gardening within the factory premise.

BOD (5 days at 20°C)	Less than 20 mg/l
Suspending Solids	Less than 30 mg/l
Residual Chlorine	Minimum 0.5 mg/l

4. CONDITIONS UNDER THE AIR ACT:

4.1. The following shall be used as a fuel.

Sr. No.	Fuel	Quantity (NM^3/Month)
1	HBI/DRI Palnt: BG (NM^3/Month) Reducing Gas (Corex off gas after CO2 absorption)	292,72,700 (NM^3/Month) 2470,00,000 (NM^3/Month)
2	Corex Plant: NG	14,50,000 (NM^3/Month)
3	Steel Melt Shop, Caster Shop, & CSP & Long Product Mill: NG	10,00,0000 (NM^3/Month)
4	Lime Plant: NG	1,950,000 (NM^3/Month)
5	Blast Furnace: BF Gas	3,01,876 (NM^3/Hr)
6	Pellet Plant NG	4,20,000 (NM^3/Month)

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached shall conform to the following standards:

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Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
PELLET PLANT					
1.	Indurating Grinding	35	ESP/Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
BLAST FURNACE					
2.	Stove and Fume Extraction	75	Fume Extraction system (FES) with Bag filter (BF)/ cyclone (Dust suppression System)	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
3.	Stock House	45	De-dusting system with Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
4.	Turbo blower/ Boiler 1 & 2	100	------	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
5.	Slag Granulation Plant	70	------	# Air vents to slag granulation vessel only during tapping.	
6.	Hot Metal Transfer/ Fumes Exhaust	45	FES System with Bag filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
7.	Sinter Plant process stack	60	ESP	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
8.	Sinter Plant process stack	30	ESP	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
SMS					
9.	FES (Fume Extraction System)	45	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
10.	FES	45	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm

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11	FES	45	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
12.	FES	45	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
REBAR & WIRE ROD MILL					
13.	RHF (Reheating Furnace)	60	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
14.	RHF	60	----		
15.	RHF	60	-------		
CSP					
16. To 18	Tunnel Furnace -1 (3 Nos)	60	----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
19 To 21	Tunnel Furnace -2 (3 Nos)	60	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
22 To 24	Tunnel Furnace -3 (3 Nos)	60	-----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm

4.4. The process emission through various stacks/vent of reactors, process, and vessel shall conform to the following standards:

Stack No.	**Stack attached to**	**Stack height in Meter**	**Air Pollution Control System**	**Parameters**	**Permissible Limit**
PELLET PLANT					
1.	Feed End	33	ESP/BF	PM	150 mg/Nm^3
2.	Discharge End	30	ESP/BF	PM	150 mg/Nm^3
3.	Hearth Layer Separation	20	ESP/BF	PM	150 mg/Nm^3
4.	Additive Grinding	32	ESP/BF	PM	150 mg/Nm^3
BLAST FURNACE					
4.	Gas Flare	50	-----	$ Only flaring excess BF gas	
5.	Pulverized Coal injection	50	De- dusting system with BF	PM	150 mg/Nm^3

6.	De-dusting for mixer	50	De- dusting system with BF	PM	150 mg/Nm^3
HBI/DRI PLANT					
7.	Recuperator	40	Ventury Scrubber	PM	150 mg/Nm^3
8.	Process dust collection system (PDCS)	20	Dust collection scrubber	PM	150 mg/Nm^3
9.	Junction House -23	30	Dust collection scrubber	PM	150 mg/Nm^3
10.	Junction House-24	30	Dust collection scrubber	PM	150 mg/Nm^3
COREX PLANT					
11.	FES of cast House	30	Bag Filter	PM	150 mg/Nm^3
12.	FES of cast House	30	Bag Filter	PM	150 mg/Nm^3
13.	Gas Flare	30	----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
14.	Gas Flare	30	----	Particulate Matter SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm
15.	FES Stock house oxide line	30	BF with de-dusting system	PM	150 mg/Nm^3
16.	FES Stock house oxide line	30	BF with de-dusting system	PM	150 mg/Nm^3
17.	FES Stock house coal line	30	BF with de-dusting system	PM	150 mg/Nm^3
18.	FES Stock house coal line	30	BF with de-dusting system	PM	150 mg/Nm^3
19.	De-Dusting Coal Drying	30	BF with de-dusting system	PM	150 mg/Nm^3
20.	De-Dusting Coal Drying	30	BF with de-dusting system	PM	150 mg/Nm^3
21.	De-Dusting Coal Drying	20	BF with de-dusting system	PM	150 mg/Nm^3
22.	De-Dusting Coal Transportation	30	BF with de-dusting system	PM	150 mg/Nm^3

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23.	De-Dusting Coal Transportation	18	BF with de-dusting system	PM	150 mg/Nm^3
24.	De-dusting Coal Blending	18	BF with de-dusting system	PM	150 mg/Nm^3
LIME PLANT					
25.	Lime/Dolime plant	45	BF	PM	150 mg/Nm^3
26.	Lime/Dolime plant	45	BF	PM	150 mg/Nm^3
27.	Lime/Dolime plant	45	BF	PM	150 /Nm^3

4.5. All bag filters shall be designed with adequate filtration rate.

4.6. Electronic Precipitators shall be designed in such a way that they shall be capable of removal of particulate loading in the flue gas. The treated flue gas shall meet the GPCB/CPCB/MOEF specified norms of discharge.

4.7. All cyclone separator shall be adequately designed for particulate specific diameters and removal efficiency.

4.8. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT (Microgram/m^3)	
	Annual	24 Hrs Average
Particulate Matter-10 (PM_{10})	60	100
Particulate Matter- 2.5 ($PM_{2.5}$)	40	60
SO_2	50	80
NO_x	40	80

4.9. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.10. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

6. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

6.1 Authorization order No:- **AWH-108150** date of Issue: **20-05-2020.**

6.2 **M/s. Essar Steel India Ltd. (Conarc Division)** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **Plot No: 200/1-7, 200/9, 200/10, 200/12,201,202/1,202/2,203,204/1, 27 Km Surat Hazira Road, Hazira-394270, Tal: Chorasi, Dist: Surat.**

Sr.	Waste	Quantity	Schedule-I/	Facility

No.		MT/Year	Category	
1	Chemical Sludge from waste water treatment	15000	35.3	Collection, Storage, Transportation and disposal at GPCB authorized TSDF Site.
2	Used Oil	928	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.
3	Waste or residues containing oil	5	5.2	
4	Empty barrels/containers/ liners contaminated with hazardous chemicals/ wastes	4690	33.1	Collection, storage transportation and disposal to authorized decontaminator

6.3 The authorization shall be valid up to **30-09-2020.**

6.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.5 The authorization is granted to operate a facility for collection, storage within factory premises, transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

7. **TERMS AND CONDITIONS OF AUTHORISATION**

7.1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.

7.2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

7.3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.

7.4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.

7.5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

7.6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"

7.7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

7.8. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous and Other Waste Rules, 2016.

7.9. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

7.10. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

7.11. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.

7.12. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.

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7.13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
7.14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
7.15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.
7.16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
7.17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
7.18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
7.19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee, of the concerned State of Union Territory Administration where the facility exists.
7.20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
7.21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
7.22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

8. GENERAL CONDITIONS: -
8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
8.2. Applicant shall also comply with the general conditions given in annexure I.
8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.
8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

8.7. The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.
8.8. In case of change of ownership/management the name and address of the new owners/ partners/directors/proprietor should immediately be intimated to the Board.
8.9. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p. no. 657 of 1995 dated 14th October 2003.

9. **SPECIFIC CONDITIONS:-**

9.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
9.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
9.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
9.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
9.5. Unit shall comply provisions of E-Waste Management Rules-2016.
9.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
9.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding **ninety days**. Prior permission of the Board shall be obtained for extension of the storage period.
9.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.
9.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

For and on behalf of
Gujarat Pollution Control Board

((N.M Tabhani)
Deputy Chief Environment Engineer

NO: GPCB/CCA-SRT-1190(5)/ID-14186/ 562515 **Date:-** 19/06/2020

Issued to:
M/s. Essar Steel India Ltd. (Conarc Division)
Plot No: 200/1-7, 200/9, 200/10, 200/12,201,202/1,202/2,203,204/1,
27 Km Surat Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

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CCA- Amendment

BY R.P.A.D.

NO: GPCB/CCA-SRT-1082(5) /ID-28839/ 586881 **Date:-** 25/03/2021

To:
M/s.. ArcelorMittal Nippon Steel India Limited (Pipe Mill Division)
Plot No: 198, 197, 195, 418, 425, 426, 427, 428, 194, 421, 191, 192, 193, 422,
27 KM Surat Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

Sub : Amendment in the interim consolidated consent & Authorization of the Board.
Ref: CCA-Renewal vide order No. AWH-107720 Dated of issue : 07/04/2020

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986, The Board has granted CCA vide order No. AWH-107720 Dated of issue : 07/04/2020 valid upto 31/12/2024 with specific conditions mentioned therein.

The Board has right to review and amend the conditions of the said CCA Order.

1. The validity of the above reffered CCA-Renewal is extended up 31/12/2024 instead of dated 30/09/2020.
2. The name of unit is read as M/s. **ArcelorMittal Nippon Steel India Limited (Pipe Mill Division)** instead of of **M/s. Essar Steel India Limited (Pipe Mill Division)**
3. The rest of the conditions of the above referred CCA–Renewal shall remain unchanged. You are directed to comply with these conditions.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(G.H. Trivedi)
Deputy Chief Environmental Engineer

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By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. **170164 dated 14-02-2020** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)

To,
M/s. Essar Steel India Limited (Pipe Mill Division)
Plot No: 198, 197, 195, 418, 425, 426, 427, 428, 194, 421, 191, 192, 193, 422,
27 KM Surat Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

1. **Consent Order No. AWH-107720 Date of issue: 07-04-2020.**
2. The consents shall be **valid upto 30-09-2020** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Product	Quantity
1	H Saw Pipes	25,000 MT/Month
2	L Saw Pipes	27,500 MT/Month
3	Coating Plant	40,000 MT/Month

Subject to specific condition:

1. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
2. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**
3. **Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.**
4. **Industry shall provide dedicated storage facility for fly ash.**
5. **Industry shall comply with fly ash notification 1999 as amended from time to time.**
6. **Please submit justification with disposal details of Oily Waste**
7. **Industry shall provide STP since domestic waste water generation and submit documentary proof to the Board within 3 month and inform Head Office & Regional Office.**
8. **Submit Environment Audit Report for the year 2018-2019 with compliance.**
9. **Please submit justification with disposal details Oily waste for last '3' Years.**

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3. CONDITIONS UNDER THE WATER ACT:

3.1. Source of Water:- Borewell.
3.2. The quantity of the fresh water consumption for industrial purpose shall not exceed 2514 KL/Day.
3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 30 KL/Day.
3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 1100 KL/Day.
3.5. The quantity of domestic waste water shall not exceed 20 KL/Day.
3.6. The applicant shall operate effluent treatment system efficiently so that treated effluent from the industrial unit shall conform to the norms mentioned below.

PARAMETERS	GPCB NORMS
PH	6.5 TO 8.5
Temperature	40° C
Colour (Pt. co. scale) inn units	100
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Phenolic Compounds	1 mg/l
Sulphides	2 mg/l
Ammonical Nitrogen	50 mg/l
Total Chromium	2 mg/l
Hexavelent Chromium	0.1 mg/l
BOD (5 days at 20^0C)	30 mg/l
COD	100 mg/l
Cyanides	0.2 mg/l
Fluorides	1.5 mg/l
Lead	0.1 mg/l
Copper	2 mg/l
Nickel	3 mg/l
Zink	5 mg/l

3.7. The final treated effluent shall conform to the above standards shall be recycled/re-circulated and in case of remaining to be utilized for irrigation/plantation within premises thus in no case effluent shall be discharge into Environment.

3.8. Domestic effluent shall be disposed off through septic tank/soak pit system.

4. CONDITIONS UNDER THE AIR ACT:

4.1. The following shall be used as a fuel in De-Dusting Blower.

Sr. No.	Fuel	Quantity
1	N.G	500 Nm^3/hr

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

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4.3. The flue gas emission through stack attached to De-Dusting Blower shall conform to the following standards:

Stack No.	Stack attached to	Stack height Meter	Air Pollution Control system	Parameter	Permissible Limit
1.	De-Dusting Blower -1	30	Bag Filter	Particulate Matter	150 mg/NM^3
2.	De-Dusting Blower -2	30	Bag Filter	Particulate Matter	150 mg/NM^3
3.	De-Dusting Blower -3	30	Bag Filter	Particulate Matter	150 mg/NM^3
4.	De-Dusting Blower -4	30	Bag Filter	Particulate Matter	150 mg/NM^3

4.4. There shall be no process emission from the manufacturing process as well as any other ancillary process.

4.5. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/ m^3
PM 2.5	60 Microgram/ m^3
SO_2	80 Microgram/ m^3
NOx	80 Microgram/ m^3

4.6. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.7. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

5. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

5.1 Authorization order No:- **AWH-107720** date of Issue: **07-04-2020.**

5.2 **M/s. Essar Steel India Limited (Pipe Mill Division)** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **Plot No: 198, 197, 195, 418, 425, 426, 427, 428, 194, 421, 191, 192, 193, 422, 27 KM Surat Hazira Road, Hazira-394270, Tal: Chorasi, Dist: Surat.**

Sr. No	Waste	Quantity	Schedule-I/ Category	Facility
1	Chemical Sludge from waste water treatment	200 MT/Year	35.3	Collection, Storage, Transportation and disposal at GPCB authorized TSDF Site.

2	Used Oil	0.833 MT/Year	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners.
3	Empty barrels/containers/ liners contaminated with hazardous chemicals/ wastes	1500 Nos/year	33.1	Collection, storage transportation and disposal to authorized decontaminator
4	Wastes or residues containing oil	2 MT/Year	5.2	Collection, storage, transportation and disposal CHWIF.

5.3 The authorization shall be valid up to **30-09-2020**.

5.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

5.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.5.2 to the industry having valid CCA of this Board.

6. TERMS AND CONDITIONS OF AUTHORISATION

1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a beach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
8. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
9. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
10. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
11. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
12. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

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14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.
16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

7. **GENERAL CONDITIONS: -**

7.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.

7.2. Applicant shall also comply with the general conditions given in annexure I.

7.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.

7.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.

7.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.

7.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

7.7. The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.

7.8. In case of change of ownership/management the name and address of the new owners/ partners/directors/proprietor should immediately be intimated to the Board.

7.9. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p. no. 657 of 1995 dated 14th October 2003.

8. **SPECIFIC CONDITIONS:-**

8.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
8.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
8.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
8.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
8.5. Unit shall comply provisions of E-Waste Management Rules-2016.
8.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy
8.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding **ninety days**. Prior permission of the Board shall be obtained for extension of the storage period.
8.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.
8.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

For and on behalf of
Gujarat Pollution Control Board

(G.B.Vasavada)
Senior Scientific Officer

NO: GPCB/CCA-SRT-1082(5)/ID-28839/ 56166 **Date:-** 03.06.2020

Issued to:
M/s. Essar Steel India Limited (Pipe Mill Division)
Plot No: 198, 197, 195, 418, 425, 426, 427, 428, 194, 421, 191, 192, 193, 422,
27 KM Surat Hazira Road,
Hazira-394270,
Tal: Chorasi, Dist: Surat.

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Paryavaran Bhavan
Sector-10-A, Gandhinagar-382 010.
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BY R.P.A.D

9/8/11

Consent to Establish (NOC)

GPCB/CCA – SRT – 1190 (2) / ID: 14186 / 88898

To,
M/S. ESSAR STEEL (HAZIRA) LTD.,
SURAT – HAZIRA ROAD,
VILLAGE.HAZIRA – 394270,
DIST.SURAT.

SUBJECT: **Consent to Establish (NOC) No. CTE under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.**

Ref : 1) **Your CTE Amendment application Inward No.18968 Dated.01.09.2010**
2) **Your letter No. ESHL/ENV/CCA/JP/12-10 Dated.14.12.2010**
3) **Our letter No. GPCB/CCA-SRT-1190/ID-14186/77187 dated.11.04.2011**
4) **Your letter No.ESHL/ENV/CTE/JP/04-11 dated.15.04.2011**

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act – 1974, the Air Act – 1981 and the Environment (Protection) Act – 1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants Consent to Establish (NOC) for Expansion of Steel Plant by installation of Coke Oven plant at SURAT – HAZIRA ROAD, VILLAGE.HAZIRA – 394270, DIST.SURAT for the manufacturing of the following items.

Sr. No.	Name of Products	Capacity
	Coke Oven plant (Recovery Type)	
1	SIZED COKE	1.2 MMTPA
2	CRUDE TAR (WATER FREE)	52187 MTPA
3.	SULPHUR (99% PURE)	1699 TPA
4.	NAPTHALENE	130 TPA
5	COKE OVEN GAS	522 $x10^6$ Nm^3 / year

SPECIFIC CONDITIONS:

1. The applicant shall comply with all the conditions stipulated by MoEF in the order of Environmental Clearance vide letter no. J-11011/313/2009-IA II (I) dated.28.07.2010.

2. The applicant shall comply with various provisions of the Coastal Regulation Zone Notification 1991 and as amended from time to time.

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3. The applicant shall have to implement adequate Environment Management System proposed in the EIA / Environmental Adequacy certificate with regard to Water Pollution, Air Emission, Solid Waste and Hazardous Waste.

4. The applicant shall comply with all the conditions stipulated by DoEF in the order of CRZ Clearance issued vide Order No. ENV-10-2007 – 174-p DATED 17/07/2007.

THIS CONSENT TO ESTABLISH (NOC) IS SUBJECT TO THE FOLLOWING CONDITIONS.

1. **The Validity period of the order will be Five years i.e. up to 31/08/2015.**

2. **CONDITIONS UNDER WATER ACT 1974:**

2.1 The quantity of the Industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed **1200 m^3 / Day**

2.2 The quantity of the domestic waste water (sewage) shall not exceed **56 m^3 / Day.**

2.3 The quantity of water to be used for the mfg. process and other ancillary industrial operation shall not exceed **8400 m^3 / Day.**

2.4 The quantity of water to be used for domestic / gardening and other ancillary industrial operation shall not exceed **70 m^3 / Day.**

2.5 The effluent treatment plant consisting of the following units as proposed by you shall be Installed

i) Effluent collection sump
ii) Tar & oil separation unit
iii) Equalization tank
iv) Dissolved air flotation unit
v) Ammonia stripping facility
vi) Ammonia fixing facility
vii) Aeration Tank
viii) pH Adjustment system
ix) Sludge settling and separation facility along with sludge drying bed
x) Chemical storage and dosing along with all nutrient dosing facilities

2.6 The quality of industrial effluent shall conform to the following standards:

PARAMETERS	GPCB NORMS
pH	6.5 – 8.5
Temperature	40^0C
Colour (pt.co.scale) in units	100 Units

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Suspended Solids	100 mg / l
Oil & Grease	10 mg / l
Phenolic Compounds (as C6H5OH)	1 mg / l
Cyanides (as CN)	0.2 mg / l
Fluorides	2.0 mg / l
Sulphides	0.5 mg / l
Ammonical Nitrogen	50 mg / l
Arsenic	0.2 mg / l
Total Chromium	2.0 mg / l
Hexavelent Chromium	0.1 mg / l
Copper	2 mg / l
Lead	0.1 mg / l
Nickel	2 mg / l
Zinc	5 mg / l
BOD (27^0C, 3 days)	30 mg / l
COD	100 mg / l
Chlorides	600 mg / l
Sulphates	1000 mg / l
Bio – assay test	90 % Survival of fish after 96 hours in 100% effluent

2.7 The final treated effluent conforming to above standards shall be reused within the plant for coke quenching and gas cooling in CO Complex as per ECC granted to you. The treated effluent shall also be utilized on own land for gardening and plantation purposes. The applicant shall strictly follow up for zero discharge and no wastewater shall be discharged In to surrounding environment.

2.8 Sewage shall be disposed of through septic tank / soak pit system

3. CONDITIONS UNDER AIR ACT, 1981

3.1 The following shall be used as fuel.

Sr. No.	Fuel	Quantity
1.	Coke Oven Gas for firing ovens	236 X 10^6 Nm3 / year
2.	Coke Oven Gas for Steam Generation	72 X 10^6 Nm3 / year

3.2 The applicant shall install & operate air pollution control system in order to achieve norms prescribed below.

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3.3 The flue gas emission through stack shall conform to the following standards :

Sr.No.	Stack Attached to	Stack Height (m)	Air Pollution Control Measures	Parameters	Permissible Limit
1.	Coke Oven Plant	125	Land based Pushing emission control system consists of Spark arrester, Bag filter House , Fans and Waste gas recirculation System to Reduce NOx Emission.	PM SO_2 NOx	150 mg / Nm^3 800 ppm 500 ppm
2.	Coke Oven Plant	125	Land based Pushing emission control system consists of Spark arrester, Bag filter House , Fans and Waste gas re – Circulation System to Reduce NOX Emission.	PM SO_2 NOX	150 mg / Nm^3 800 ppm 500 ppm

3.4 All bag filters shall be designed with adequate filtration rate.

3.5 The applicant shall install on line ambient air quality monitoring stations as well as continuous stack monitoring facilities for all the stacks.

3.6 Stack monitoring facilities like port hole, platform / ladder etc., shall be provided with stacks / vents chimney in order to facilitate sampling of gases being emitted in to the atmosphere.

3.7 Ambient Air quality within the premises of the industry shall conform to the following standards.

PARAMETER	PERMISSIBLE LIMIT	
	Annual Av.	24 hrs. Average
Particulate Matter-10 (PM_{10})	60 microgram/NM^3	100 microgram/NM^3
Particulate Matter-2.5 ($PM_{2.5}$)	40 microgram /NM^3	60 microgram/NM^3
SO_2	50 microgram/ NM^3	80 microgram/NM^3
NO_x	40 microgram /NM^3	80 microgram/NM^3

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3.8 All measures for the control of environmental pollution shall be provided before commencining production.

3.9 There shall be generation of Tar sludge and ETP Sludge. The sludge will be mixed with coal charge blend and shall be charged in the Coke Ovens as per EC granted to you.

4. CONDITIONS UNDER HAZARDOUS WASTE RULES 2008:

4.1. The Applicant shall have to comply with provisions of Hazardous Waste (Management, Handling & Transboundary Movement) Rules-2008 as amended from time to time.

4.2. The applicant shall obtain membership of common TSDF site for disposal of Hazardous Solid Waste as categorized in Hazardous Waste (Management, Handling & Transboundary Movement) Rules-2008 as amended from time to time, whenever applicable.

4.3 The applicant shall obtain membership of common Hazardous Waste incinerator for disposal off incinerable waste, whenever applicable.

4.4 The applicant shall provide temporary storage facilities for each type of Hazardous Waste as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules- as amended from time to time.

5. GENERAL CONDITION:

5.1. Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of **5** meters width is developed.

5.2. The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.

5.3. In case of change of ownership/management the name and address of the new owners / partners / directors / proprietor should immediately be intimated to the Board.

5.4 The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.

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5.5. The applicant also comply with the General conditions as per Annexure - I attached herewith (No.1 to 38) (whichever applicable).

5.6. The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:

Between 6 A.M. and 10 P.M. : 75 dB(A)
Between 10 P.M. and 6 A.M. : 70 dB(A)

5.7. Applicant is required to comply with the Manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.

5.8. If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property .in that case they are obliged to pay the compensation as determined by the competent authority.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(R. R. VYAS)
ENVIRONMENT ENGINEER

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ANNEXURE R - 5/11

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GPCB

"Consent to Establish-Amendment"
(CTE-82830)

BY R.P.A.D.
Date: 15/2/2016

NO: GPCB/CCA-SRT-340(12)/ID_20680/ 404188

To,
M/s. Essar Steel India Limited(HRC Division)
Plot No:- 203-230, 245-264, 312-321, @27 Km,
Surat-Hazira Road, Hazira,
Surat:- 394270,
Tal:- Chorasi, Dist:- Surat.

Sub: **Consent to Establish (NOC)-Amendment under Section 25 of Water Act 1974 and Section 21 of Air Act 1981**

Ref: 1) Your application for CTE-Amendment no. 114140 received Dated. **14/10/2016.**

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants **Consent to Establish-Amendment** for **replacement of existing Hot briquetted Iron/Direct reduced Iron Module-I-IV with blast furnace and associated facilities like sinter plant, coke oven plant, Air Separator unit and electric arc furnace with basic oxygen furnace for steel making within existing premises in existing** industrial plant/activities located at Plot No:- 203-230, 245-264, 312-321, @27 Km, Surat-Hazira Road, Hazira, Surat:- 394270, Tal:- Chorasi, Dist:- Surat. for the manufacturing of the following items:-

Sr. No.	Plant name	Product & By Product	Capacity (TPA)
1	**BLAST FURNACE-2**	Hot Metal	30,00,000
		Granulated Slag	12,30,000
		BF Return Fines	5,00,000
		Dust Catcher Fines	19,500
		Coke Fines	50,120
		Gas cleaning plant fines	36,000
2	**SINTER PLANT-2**	Product sinter	15,00,000
3	**SINTER PLANT NO-3**	Product Sinter	5,500,000
4	**COKE OVEN PLANT**	Gross Coke	13,50,000
		Crude Tar	63,000
		Sulphur	1,980
		Crude Benzol	18,243
5	**AIR SEPARATION UNIT**	Oxygen Gaseous (NM^3/Hr)	64,200
		Oxygen liquid (NM^3/Hr)	500
		Nitrogen (NM^3/Hr)	25,700
		Argon (NM^3/Hr)	1,500
6	**BASIC OXYGEN FURNACE**	Liquid steel	4,600,000
		Slag	5,52,000
		BOF sludge	69,000

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SUBJECT TO THE FOLLOWING CONDITIONS: -

1. **The validity of this order will be up to five years i.e. 02/12/2021.**

2. The applicant shall strictly comply with all condition/stipulated made in Environmental Clearance issued by Ministry of Environment and Forest,New Delhi in it order no- J-11011/74/2006-IA-II(I) Dated, 13/06/2006 and CRZ clearance for extension of existing captive jeety vide order no. II-65/2005-IA-III Dtd. 18/09/2006 respectively.

3. Industry shall strictly comply with all specific conditions mentioned in Environmnetal Clearance issued by Govt. of India, Ministry of Environment and Forest vide their letter No. J-11011/74/2006 IA-II(I). dtd. 13/06/2006.

4. The unit shall strictly observe and comply with conditions stipulation made in Environmental Clearance issued by MOEF, New Delhi in its order No:- J-11011/45/2004-IA-II(I) dtd, 07/11/2005.

5. The applicant shall strictly observe & comply with various stipulation imposed by MOEF, New Delhi in its Order no. J-11011/4/95-IA0II(I) dtd. 23/07/1992 & to submit compliance report thereof.

6. The applicant shall strictly observed & comply with all condition of Environmental Clearance granted by Ministry of Environment and Forest, vide letter no. J-13011/90/2006-IA-II(I) Dated, 20/04/2007.

7. The applicant shall strictly observed & comply with all condition of Environmental Clearance granted by Ministry of Environment and Forest, vide letter no. J-11011/381/2014-IA II (I), Dated:- 09/03/2016.

CONDITIONS UNDER WATER ACT 1974:

1. Water Source: - River Tapi.
2. The quantity of the fresh water consumption for industrial purpose, after proposed expansion, shall be increased from 8264 M^3/Hr to 8475 M^3/Hr.
3. The quantity of the water consumption for domestic purpose, after proposed expansion, shall be reduced from 260 M^3/Hr to 254 M^3/Hr.
4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations, after proposed expansion, shall be reduced from 2186 M^3/Hr to 2184 M^3/Hr.
5. The quantity of the domestic waste water (Sewage), after proposed expansion, shall be reduced from 127 M^3/Hr to 121 M^3/Hr.
6. The applicant shall provide adequate effluent treatment system in order to achieve the quantity of the treated effluent as per GPCB norms mentioned in consent order no:- 65181
7. The Final treated effluent confirming to the standards shall be discharged into Estuary Zone of river Tapi through closed pipe through one outlet only after being recycled and reused in slag treatment, send to coke oven and used on land to maximum extent,

7. Domestic effluent @ 380 M^3/day shall be disposed off through septic tank/ soak pit system & @782 M^3/day shall be treated separately to confirm to the following standards and utilized on land for plantation or gardening within the factory premise.

BOD (5 days at 20^0C)	Less than 20 mg/l
Suspending Solids	Less than 30 mg/l
Residual Chlorine	Minimum 0.5 mg/l

8. Domestic effluent shall be disposed off through septic tank/soak pit system.

M/s. Essar Steel India Limited(HRC Division).(ID_20680)

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CONDITIONS UNDER AIR ACT 1981:

10. The following shall be used as fuel.

Sr. No.	Fuel	Quantity
1	**HBI (Mod-I-V):** NG (Sm^3/Day) LPG Naptha/ NGL	 5610173 932 TPD 376 TPD
	HRC: (Lime plant , RHF, Boiler) NG (Sm^3/Day) NGL/Naptha	 9312164 7507 TPD
	CRM: NG (Sm^3/Day)	 194568
	CPP:- 31 MW: NG (Sm^3/Day) NGL/Naptive	 192000 168 TPD

11. The applicant shall install & operate air pollution control system in order to achieve norms prescribed below.
12. The flue gas emission through stack shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Air Pollution Control System	Parameters	Permissible Limit
BLAST FURNACE:-					
1.	Stove	80	---	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
2.	Pulverized Coal Injection(PCI)	100	Bag Filter	Particulate Matter SO_2 NO_x	10 mg/Nm^3 10 ppm 80 ppm
3.	Slag Granulation Plant Stack-1	100	---	Particulate Matter SO_2 NO_x	100 mg/Nm^3 40 ppm 125 ppm
4.	Slag Granulation Plant Stack- 2	80	---	Particulate Matter SO_2 NO_x	150 mg/Nm^3 40 ppm 125 ppm
5.	Stock house	45	De-dusting system with Bag Filter	Particulate Matter	80 mg/Nm^3
6.	Caste house Fume Extraction Stack-1	45	Fume Extraction system(FES) with Bag Filter	Particulate Matter	80 mg/Nm^3
7.	Caste house Fume Extraction Stack-2	45	Fume Extraction system(FES) with Bag Filter	Particulate Matter	80 mg/Nm^3

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8.	Back draft	80	---	Particulate Matter SO_2	80 mg/Nm^3 40 ppm
9.	Gas Flare	50	Dry Cyclone+ Bag Filter for BF Top gas cleaning		
SINTER PLANT -2					
10	Sinter Plant De-dustingStack	33.5	De-dusting system with Bag Filter	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
11	Sinter Plant Waste gas stack	120	ESP	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
SINTER PLANT -3					
12	Sinter Plant De-dustingStack	33.5	De-dusting system with Bag Filter	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
13	Sinter Plant Waste gas stack	120	ESP	Particulate Matter SO_2 NO_x	10 mg/Nm^3 10 ppm 80 ppm
COKE OVEN PLANT					
14	Battery chimney - 1 & 2	145	---	Particulate Matter SO_2 NO_x	50 mg/Nm^3 100 ppm 50 ppm
15	Coke pushing side dedusting chimney	30	Bag Filter	Particulate Matter SO_2 NO_x	10 mg/Nm^3 10 ppm 80 ppm
16	Coke pushing ground dedusting chimney	30	Bag Filter	Particulate Matter SO_2 NO_x	100 mg/Nm^3 40 ppm 125 ppm
17	Environmental dedusting system stack for CDQ	50	Bag Filter	Particulate Matter SO_2 NO_x	150 mg/Nm^3 40 ppm 125 ppm
BASIC OXYGEN FURNACE(BOF)					
18	Gas Flare - 1	80	ESP	PM	150 mg/Nm^3
19	Gas Flare -2	80	ESP	PM	150 mg/Nm^3
20	Gas Flare -3	80	ESP	PM	150 mg/Nm^3

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21	Fume & Dust Extraction System - 1	45	Bag Filter	PM	150 mg/Nm^3
22	Fume & Dust Extraction System - 2	45	Bag Filter	PM	150 mg/Nm^3
23	Fume & Dust Extraction System - 3	45	Bag Filter	PM	150 mg/Nm^3
24	Fume & Dust Extraction System -4	45	Bag Filter	PM	150 mg/Nm^3
25	Fume & Dust Extraction System -5	45	Bag Filter	PM	150 mg/Nm^3

13. There shall be no process emission from the manufacturing process as well as any other ancillary process.
14. Industry shall take adequate measure to Control dusting due to storage, transportation & handling of Coal & fly ash.
15. Industry shall comply with Coal handling guideline of the Board.
16. Industry shall comply with fly ash notification.
17. Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks/vents chimney in order to facilitate sampling of gases being emitted into the atmosphere.
18. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10 meters from the sources (other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/M3
PM 2.5	60 Microgram/M3
SO_2	80 Microgram/M3
NOx	80 Microgram/M3

19. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

CONDITIONS UNDER HAZARDOUS WASTE RULES:

20. Applicant shall have to comply with provisions of Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
21. The applicant shall obtain membership of common TSDF site for disposal of Hazardous waste as categorized in Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
22. The applicant shall obtain membership of common Hazardous Waste incinerator for disposal of incinerable waste.
23. The applicant shall provide temporary storage facilities for each type of Hazardous Waste as per Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
24. The applicant shall obtain registration/authorization for recycling/reprocessing any hazardous waste before procuring material/starting production as per HW Rules 2016.
25. The applicant shall obtain authorization for recovery/reuses of any hazardous waste material as per HW Rules 2016.

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GENERAL CONDITION :

26. Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is atleast 1000 trees per acre of land and a green belt of 3 meters width is developed.
27. The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.
28. In case of change of ownership/management the name and address of the new owners /partners/ directors/ proprietor should immediately be intimated to the Board.
29. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.
30. The applicant also comply with the General conditions as per Annexure - I attached herewith (No.1 to 38) (whichever applicable).
31. The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:
    Between 6 A.M. and 10 P.M. : 75 dB(A)
    Between 10 P.M. and 6 A.M. : 70 dB(A)
32. Applicant is required to comply with the manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.
33. If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property .in that case they are obliged to pay the compensation as determined by the competent authority.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

10/12/2017

(Smt U.K. Upadhyay)
ENVIRONMENTAL ENGINEER

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BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN BENCH, PUNE

APPEAL NO. 27 OF 2022 (WZ)

IN THE MATTER OF:

Thakorbhai Vallabhbhai Khalasi …Appellant

Versus

Ministry of Environment, Forest and Climate Change and Ors.

…Respondents

INDEX VOLUME - II

ArcelorMittal Nippon Steel India, Limited – Hazira Integrated Steel Complex

Action Plan for Compliance with CREP

S. No.	Unit	CREP Requirement	Compliance Status / Action Plan as on 01.12.2021
1	Coke Ovens	To meet the parameters PLD, PLL, PLO of notified standard under EP (Act)	Shall be complied. CO Battery#1&2 will be installed after getting the modification EC. Following facilities proposed to meet the parameters PLD, PLL, PLO of the notified standard: • Zero-leak self-sealing doors with door and door frames cleaner. • High Pressure Hydro-jet door cleaner at end benches • Water seal AP Caps on pusher side and coke side
2	Steel Melting Shop	Fugitive emissions – to reduce 100% (including installation of Secondary de-dusting facility)	SMS 1: Required fugitive emission control measures are in place. Secondary De-dusting facilities with Bag filters have already installed. Further upgradation of Dedusting systems are in progress. SMS-2: Required fugitive emission control measures are in place. Secondary De-dusting facilities with Bag filters have already installed.
3	Blast Furnace	Direct injection of reducing agent	Complied. Pulverized Coal Injection system has been installed with the Blast Furnace#1. Present CDI Rate is approx. 200 kg /thm. Under the modification proposal of the plant, it has been planned to increase the CDI Rate to 250 kg/thm.

S. No.	Unit	CREP Requirement	Compliance Status / Action Plan as on 01.12.2021
4.	Solid Waste /Hazardous Waste Management	100% utilization of Steel/Melting shop (SMS)/ Blast Furnace (BF) Slag	Partially complied. All the BF Slag is being granulated and sold to the Cement units. EAF slag is being used for road making, area levelling etc. and explored for using in National Highway projects, Bullet Train Project. Required CPCB/MoEF&CC intervention for utilization of EAF slag for road making by various Govt. agencies like PWD, NHAI, etc. through guidelines.
		Charge of tar sludge/ETP sludge to Coke Oven	Shall be complied. Decanter Tar sludge and BOD Plant sludge will be charged in Coke Ovens once commissioned.
5.	Water Conservation/ Water Pollution	To reduce specific water consumption to 5 m^3/t for long products and 8 m^3/t for flat products notified effluent discharge standard	Complied. Present Sp. Water consumption of the plant is 3.8 m3/ton of Crude Steel. After the proposed expansion Sp. Water Consumption is envisaged as 3.5 m^3/ton. of Crude steel.
		To operate the Co-BP effluent treatment plant efficiently to achieve the norm	Shall be complied. A BOD Plant using a process of Anaerobic, Anoxic, Aerobic, and double membrane has been proposed for treatment Co-BP effluent. Coke Oven Effluent Standards notified under the GSR 277(E) dated 31st March 2012 shall be achieved.
6.	All major stacks	Installation of online stack monitoring & online ambient air quality monitoring stations	Complied. Online stack monitoring with all major stacks have been installed and shall be installed with all major stacks under the expansion. 4 nos. of Online ambient air quality monitoring stations have been installed.
7.	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency		Being complied. Existing pollution control equipment are being operated efficiently, and proper record are kept for run hours, failure time and efficiency
8.	Implement the recommendations of Life Cycle Assessment (LCA)		Shall be complied

S. No.	Unit	CREP Requirement	Compliance Status / Action Plan as on 01.12.2021
9.	Industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy, land environment:		
		• Energy recovery of top Blast Furnace (BF) gas	Complied. TRT has been installed with the existing BF#1.
		• Use of Tar- free runner linings.	Complied. We are using Tar-free runner linings.
		• De- dusting of Cast house at tap holes, runners, skimmers ladle and charging points.	Complied. Cast House de-dusting systems have been installed with exiting BF#1.
		• Suppression of fugitive emissions using nitrogen gas or other inert gas	Will explore the possibilities.
		• To study the possibility of slag and fly ash transportation back to the abandoned mines, to the abandoned mines, to fill up the cavities through empty railway wagons while they return to the mines and its implementation.	Not applicable as our Steel complex is located far away from Mines and Raw material is being transported by Ships
		• Processing of the waste containing flux & ferrous wastes through waste recycling plant.	Complied. Flux and ferrous wastes shall be recycled through Sinter Plant
		• To implement rainwater harvesting	Complied. We have implemented rainwater harvesting. Total 6,51,364 m3 rainwater harvested during the current year.

S. No.	Unit	CREP Requirement	Compliance Status / Action Plan as on 01.12.2021
		• Reduction Green House Gases by: - Reduction in power consumption - Use of by –products gases for power generation Promotion of Energy Optimization technology including energy/ audit	Being Complied. Current Energy conservation measures: 1) Installation of VVFD in CWPS Cooling Tower 2 in Blast Furnace 2) Tail gas recovery from HBI Plant. 3) Installation of transparent sheet and utilization of day light in Platemill 4) Conventional illumination replacement with LED 5) Reduction in pumping power by relocation of cooling tower overflow line from warm to cold sump 6) Optimizing compressed air consumption 7) Replacing existing screw and reciprocating compressors with high efficiency centrifugal compressor in HSM
		• To set targets for Resource Conservation such as Raw material, energy and water consumption to match International Standards.	Being complied. We have already set targets for Resource conservations to match international standards. • Specific Energy – 6.1 Gcal/tcs - Target 2030 • Specific GHG Emissions – 2.01 tco2/tcs - Target 2030 • Specific Water conservation – 2.95 m3/tcs - Target 2030
		• Up- gradation in the monitoring and analysis facilities for air and water pollution. Also, to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories	Complied. Online stack monitoring with all major stacks have been installed and shall be installed with all major stacks under the expansion. 4 nos. of Online ambient air quality monitoring stations have been installed.

S. No.	Unit	CREP Requirement	Compliance Status / Action Plan as on 01.12.2021
		• To Improve overall housekeeping	Being complied. ▪ Dust collection and extraction system is strengthened. ▪ Manual water sprinkling is going on, in & around plant as well as on roads ▪ Road sweeping machines have been increased form 2 nos. to 7 nos. for effective road cleaning. ▪ Manual cleaning of the roads and the surrounding areas is enhanced by increasing additional manpower to 270 nos. per day. ▪ Regular cleaning is being done of Factory shed to remove dust deposition. ▪ Deployment of New battery-operated road sweeping machine used inside plants for cleaning purpose

AM/NS INDIA

AMNS / ENV / 05 - 22
30th May, 2022

Regional Officer,
Gujarat Pollution Control Board,
338, Belgium Square, First Floor,
Silver Plaza Complex, Opp. Linear Bus Stand
Ring Road, Surat – 395003.

Sub: Submission of Environment Monitoring & Analysis Reports for the Month of April, 2022 as per the Water Act 1974, Air Act 1981 & Hazardous Waste Rules 2016.

Ref: (1) CC&A Order No. 107719 issued to ArcelorMittal Nippon Steel India Limited (HRC Division) **(GPCB ID: 20680)**
(2) CC&A Order No. 108150 issued to ArcelorMittal Nippon Steel India Limited (Conarc Division) **(GPCB ID: 14186)**
(3) CC &A Order No. 107720 issued to ArcelorMittal Nippon Steel India Limited(Pipe Mill Division) (**GPCB ID: 28839)**
(4) CC &A Order No. 107721 issued to ArcelorMittal Nippon Steel India Limited(Plate Mill Division) **(GPCB ID: 22968)**
(5) CC&A Order No.98611 issued to ArcelorMittal Nippon Steel India Limited(AMNS Township). (**GPCB ID: 20679)**
(6) CC&A Order No.103579 issued to ArcelorMittal Nippon Steel India Limited - Power Division (**GPCB ID: 24199)**

Dear Sir,

With reference to the above, please find enclosed environment monitoring & analysis reports of treated effluent, stack emissions, ambient air quality & noise conducted through NABL approved third party laboratory along with the Production details as per consent condition for ArcelorMittal Nippon Steel India Limited.

Thanking you.

Yours faithfully,

G.P.C. Board
SURAT.
RECEIVED COPY
Sign
Date 31/05/22

For,
ArcelorMittal Nippon Steel India Ltd.

R. S. Sankarasubramanian
Head - Environment

ArcelorMittal Nippon Steel India Limited
(Formerly Essar Steel India Limited)
Registered Office: 27th km, Surat-Hazira Road,
Hazira, Surat 394 270 Gujarat, India
CIN-U27100GJ1976PLC013787
T +91 0261-668 9200
E contact@amns.in
W www.amns.in
A joint venture between ArcelorMittal and Nippon Steel Corporation
ArcelorMittal NIPPON STEEL

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0160**
Issue Date	:	**20/04/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	:	**ETP Water (Outlet -1 HRC Division)**			
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling Date	:	**09/04/2022**	Protocol (purpose)	:	**QC**
Packing/ Seal	:	**Sealed**	Lab ID	:	**AMNW/2204/17**
Sample Receipt Date	:	**11/04/2022**	Test Parameters	:	**As per table**
Date of Starting of Test	:	**11/04/2022**	Date of Completion of Test	:	**20/04/2022**

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	-	8.23	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	31.6	40	IS 3025 (Part-9)
3	Total Suspended Solids	mg/L	59	100	IS 3025 (Part-17)
4	Oil & Grease	mg/L	5.4	10	APHA (23rd Edition) 5520 B
5	BOD (3 Days @ 27 °C)	mg/L	18	30	IS 3025 (Part-44)
6	COD	mg/L	68	100	APHA (23rd Edition) 5220 B Open Reflux Method
7	Iron as Fe	mg/L	0.64	-	APHA (23rd Edition) 3500 Fe B
8	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
9	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
10	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
11	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
12	Fluoride as F	mg/L	0.58	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
13	Zinc as Zn	mg/L	0.33	5.0	APHA (23rd Edition) 3111 B
14	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
15	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
16	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
17	Ammonical Nitrogen as NH_3	mg/L	5.1	50	IS 3025 (Part-34) Nesslerization Method
18	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part-43) Aminoantipyrine Method
19	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
20	Sulphate as SO_4	mg/L	112	1000	IS 3025 (Part-24) Turbidimetric method
21	Colour	Co-pt	40	100	IS 3025 (Part-4)
22	Bio-assay test	%	90 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L, Sulphide as S: 0.1 mg/L, Cyanide as CN: 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L, Arsenic as As: 0.001 mg/L.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986 ● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0156**
Issue Date	:	**20/04/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	:	**ETP Water (Final Outlet -2 Plate Mill Division)**			
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling Date	:	**09/04/2022**	Protocol (purpose)	:	**QC**
Packing/ Seal	:	**Sealed**	Lab ID	:	**AMNW/2204/13**
Sample Receipt Date	:	**11/04/2022**	Test Parameters	:	**As per table**
Date of Starting of Test	:	**11/04/2022**	Date of Completion of Test	:	**20/04/2022**

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	--	8.23	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	31.8	40	IS 3025 (Part–9)
3	Total Suspended Solids	mg/L	43	100	IS 3025 (Part-17)
4	Oil & Grease	mg/L	4.6	10	APHA (23rd Edition) 5520 B
5	BOD (3 Days @ 27 °C)	mg/L	15	30	IS 3025 (Part-44)
6	COD	mg/L	63	100	APHA (23rd Edition) 5220 B Open Reflux Method
7	Iron as Fe	mg/L	0.57	-	APHA (23rd Edition) 3500 Fe B
8	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
9	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
10	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
11	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
12	Fluoride as F	mg/L	0.63	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
13	Zinc as Zn	mg/L	Not Detected	5.0	APHA (23rd Edition) 3111 B
14	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
15	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
16	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
17	Ammonical Nitrogen as NH_3	mg/L	6.92	50	IS 3025 (Part-34) Nesslerization Method
18	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part–43) Aminoantipyrine Method
19	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
20	Sulphate as SO_4	mg/L	210	1000	IS 3025 (Part-24) Turbidimetric method
21	Colour	Co-pt	40	100	IS 3025 (Part–4)
22	Bio-assay test	%	90 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L, Sulphide as S:0.1 mg/L, Cyanide as CN : 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L,Arsenic as As: 0.001 mg/L, Zinc as Zn : 0.05 mg/L.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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POLLUCON LABORATORIES PVT. LTD.

TEST REPORT

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED AM/NS HAZIRA PLANT 27th KM, SURAT HAZIRA ROAD, SURAT – 394270, GUJARAT, INDIA.	Test Report No. :	**PL/AMNW 0163**
	Issue Date :	**20/04/2022**
	Customer's Ref. :	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	: **Water Sample**	Quantity/No. of Samples	:	**01 Ltr/01**
Sampling Date	: **09/04/2022**	Protocol (Purpose)	:	**QC**
Sampling By	: **Pollucon Laboratories Pvt. Ltd.**			
Sample Receipt Date	: **11/04/2022**	Lab ID	:	**AMNW/2204/20**
Packing/Seal	: **Sealed**	Test of Parameters	:	**As Per Table**
Date of Starting of Test	: **11/04/2022**	Date of Completion	:	**20/04/2022**
Identification of Sample	: **AM/NS Power Division Final Outlet#**			

RESULT TABLE

SR. NO.	PARAMETERS	UNIT	RESULT	GPCB NORMS$	TEST METHOD
1	pH	--	8.26	6.5 to 8.5	IS 3025 (Part–11) Electrometric Method
2	Total Suspended Solids	mg/L	35	100	IS 3025 (Part – 17)
3	Oil & Grease	mg/L	4.6	20	APHA (23rd Edition) 5520 B
4	Hexavelant Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
5	Total Chromium as Cr^{+3}	mg/L	Not Detected	2	APHA (23rd Edition) 3111 B
6	Copper as Cu	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
7	Zinc as Zn	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
8	Iron as Fe	mg/L	0.063	Not specified	APHA (23rd Edition) 3500 Fe B Phenantroline Method
9	Phosphate as PO_4	mg/L	0.59	1	APHA (23rd Edition) 4500-P-C
10	Temperature	°C	31.5	Not More than 5 °C higher the intake Water temperature	IS 3025 (Part–9)
11	Colour	Co-pt	40	100	IS 3025 (Part–4)
12	Phenolic Compounds	mg/L	Not Detected	1	IS 3025 (Part–43) Aminoantipyrine Method
13	Sulphide	mg/L	Not Detected	2	APHA (23rd Edition) 4500 S2 F Iodometric method
14	Ammonical Nitrogen	mg/L	1.60	50	IS 3025 (Part-34) Nesslerization Method
15	BOD (5 days at 20 °C)	mg/L	6.6	30	IS 3025 (Part–44)
16	COD	mg/L	38	100	APHA (23rd Edition) 5220 B Open Reflux Method
17	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
18	Fluorides	mg/L	0.49	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
19	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
20	Nickel as Ni	mg/L	Not Detected	3	APHA (23rd Edition) 3111 B

Detection Limit: Oil & Grease: < 2.0 mg/L, Hexavalent Chromium as Cr^{+6}: < 0.05 mg/L, Total Chromium as Cr^{+3}: < 0.05 mg/L, Copper as Cu: < 0.02 mg/L, Zinc as Zn: < 0.05 mg/L, Phenolic Compounds: < 0.01 mg/L, Cyanide as CN: < 0.01 mg/L, Lead as Pb: < 0.02 mg/L, Nickel as Ni :< 0.02 mg/L, Sulphide: < 0.1 mg/L.
$: Limit#: As per CCA No. AWH: 103579 Date: 19-08-2019 Valid up to 31/03/2024.
#: Detail given by customer.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986 ● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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AM/NS INDIA

AMNS / ENV / 06 - 22
10th June, 2022

Regional Officer,
Gujarat Pollution Control Board,
338, Belgium Square, First Floor,
Silver Plaza Complex, Opp. Linear Bus Stand
Ring Road, Surat – 395003.

Sub: Submission of Environment Monitoring & Analysis Reports for the Month of May, 2022 as per the Water Act 1974, Air Act 1981 & Hazardous Waste Rules 2016.

Ref: (1) CC&A Order No. 107719 issued to ArcelorMittal Nippon Steel India Limited (HRC Division) **(GPCB ID: 20680)**
(2) CC&A Order No. 108150 issued to ArcelorMittal Nippon Steel India Limited (Conarc Division) **(GPCB ID: 14186)**
(3) CC &A Order No. 107720 issued to ArcelorMittal Nippon Steel India Limited (Pipe Mill Division) **(GPCB ID: 28839)**
(4) CC &A Order No. 107721 issued to ArcelorMittal Nippon Steel India Limited (Plate Mill Division) **(GPCB ID: 22968)**
(5) CC&A Order No.98611 issued to ArcelorMittal Nippon Steel India Limited (AMNS Township). **(GPCB ID: 20679)**
(6) CC&A Order No.103579 issued to ArcelorMittal Nippon Steel India Limited - Power Division **(GPCB ID: 24199)**

Dear Sir,

With reference to the above, please find enclosed environment monitoring & analysis reports of treated effluent, stack emissions, ambient air quality & noise conducted through NABL approved third party laboratory along with the Production details as per consent condition for ArcelorMittal Nippon Steel India Limited.

Thanking you.

Yours faithfully,

For,
ArcelorMittal Nippon Steel India Ltd.

G.P.C. Board
SURAT.
RECEIVED COPY
Sign
Date 10/6/22

R. S. SankaraSubramanian
Head - Environment

ArcelorMittal Nippon Steel India Limited
(Formerly Essar Steel India Limited)

Registered Office: 27th km, Surat-Hazira Road,
Hazira, Surat 394 270 Gujarat, India
CIN U27100GJ1976FLC013787

T +91 0261-668 9200
E contact@amns.in
W www.amns.in

A joint venture between ArcelorMittal and Nippon Steel Corporation

ArcelorMittal NIPPON STEEL

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0192**
Issue Date	:	**23/05/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	:	**ETP Water (Outlet -1 HRC Division)**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Protocol (purpose)	:	**QC**
Sampling Date	:	**14/05/2022**	Lab ID	:	**AMNW/2205/21**
Packing/ Seal	:	**Sealed**	Test Parameters	:	**As per table**
Sample Receipt Date	:	**14/05/2022**	Date of Completion of Test	:	**23/05/2022**
Date of Starting of Test	:	**14/05/2022**			

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	--	8.09	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	32.1	40	IS 3025 (Part–9)
3	Total Suspended Solids	mg/L	69	100	IS3025(Part-17)
4	Oil & Grease	mg/L	7.1	10	APHA(23rd Edition)5520 B
5	BOD (3 Days @ 27 °C)	mg/L	19	30	IS 3025 (Part-44)
6	COD	mg/L	78	100	APHA (23rdEdition) 5220 B Open Reflux Method
7	Iron as Fe	mg/L	0.73	-	APHA (23rd Edition) 3500 Fe B
8	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
9	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
10	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
11	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
12	Fluoride as F	mg/L	0.66	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
13	Zinc as Zn	mg/L	0.41	5.0	APHA (23rd Edition) 3111 B
14	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
15	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
16	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
17	Ammonical Nitrogen as NH_3	mg/L	6.25	50	IS 3025 (Part-34) Nesslerization Method
18	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part–43) Aminoantipyrine Method
19	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
20	Sulphate as SO_4	mg/L	124	1000	IS 3025 (Part-24) Turbidimetric method
21	Colour	Co-pt	50	100	IS 3025 (Part–4)
22	Bio-assay test	%	90 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L,Sulphide as S: 0.1 mg/L, Cyanide as CN: 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L,Arsenic as As: 0.001 mg/L.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED AM/NS HAZIRA PLANT 27th KM, SURAT HAZIRA ROAD, SURAT – 394270, GUJARAT, INDIA.	Test Report No. : **PL/AMNW 0188** Issue Date : **23/05/2022** Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	: **ETP Water (Final Outlet -2 Plate Mill Division)**				
Sampling By	: **Pollucon Laboratories Pvt. Ltd.**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling Date	: **14/05/2022**	Protocol (purpose)	:	**QC**
Packing/ Seal	: **Sealed**	Lab ID	:	**AMNW/2205/17**
Sample Receipt Date	: **14/05/2022**	Test Parameters	:	**As per table**
Date of Starting of Test	: **14/05/2022**	Date of Completion of Test	:	**23/05/2022**

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	--	8.19	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	32	40	IS 3025 (Part–9)
3	Total Suspended Solids	mg/L	64	100	IS3025(Part-17)
4	Oil & Grease	mg/L	3.0	10	APHA(23rd Edition)5520 B
5	BOD (3 Days @ 27 °C)	mg/L	10	30	IS 3025 (Part-44)
6	COD	mg/L	48	100	APHA (23rdEdition) 5220 B Open Reflux Method
7	Iron as Fe	mg/L	0.65	-	APHA (23rd Edition) 3500 Fe B
8	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
9	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
10	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
11	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
12	Fluoride as F	mg/L	0.72	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
13	Zinc as Zn	mg/L	Not Detected	5.0	APHA (23rd Edition) 3111 B
14	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
15	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
16	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
17	Ammonical Nitrogen as NH_3	mg/L	8.45	50	IS 3025 (Part-34) Nesslerization Method
18	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part–43) Aminoantipyrine Method
19	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
20	Sulphate as SO_4	mg/L	172	1000	IS 3025 (Part-24) Turbidimetric method
21	Colour	Co-pt	40	100	IS 3025 (Part–4)
22	Bio-assay test	%	90 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L, Sulphide as S:0.1 mg/L, Cyanide as CN : 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L,Arsenic as As: 0.001 mg/L, Zinc as Zn : 0.05 mg/L.

H. T. Shah
Lab. Manager

Dr. ArunBajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST REPORT

QF/7.8/28-WT

Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0195**
Issue Date	:	**23/05/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	:	**Water Sample**	Quantity/No. of Samples	:	**01 Ltr/01**
Sampling Date	:	**14/05/2022**	Protocol (Purpose)	:	**QC**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**			
Sample Receipt Date	:	**14/05/2022**	Lab ID	:	**AMNW/2205/24**
Packing/Seal	:	**Sealed**	Test of Parameters	:	**As Per Table**
Date of Starting of Test	:	**14/05/2022**	Date of Completion	:	**23/05/2022**
Identification of Sample	:	**AM/NS Power Division Final Outlet#**			

RESULT TABLE

SR. NO.	PARAMETERS	UNIT	RESULT	GPCB NORMS$	TEST METHOD
1	pH	--	8.11	6.5 to 8.5	IS 3025 (Part–11) Electrometric Method
2	Total Suspended Solids	mg/L	47	100	IS 3025 (Part – 17)
3	Oil & Grease	mg/L	5.6	20	APHA (23rd Edition) 5520 B
4	Hexavelant Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
5	Total Chromium as Cr^{+3}	mg/L	Not Detected	2	APHA (23rd Edition) 3111 B
6	Copper as Cu	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
7	Zinc as Zn	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
8	Iron as Fe	mg/L	0.044	Not specified	APHA (23rd Edition) 3500 Fe B Phenantroline Method
9	Phosphate as PO_4	mg/L	0.73	1	APHA (23rd Edition) 4500-P-C
10	Temperature	°C	31.9	Not More than 5 °C higher the intake Water temperature	IS 3025 (Part–9)
11	Colour	Co-pt	50	100	IS 3025 (Part–4)
12	Phenolic Compounds	mg/L	Not Detected	1	IS 3025 (Part–43) Aminoantipyrine Method
13	Sulphide	mg/L	Not Detected	2	APHA (23rd Edition) 4500 S2 F Iodometric method
14	Ammonical Nitrogen	mg/L	2.15	50	IS 3025 (Part-34) Nesslerization Method
15	BOD (5 days at 20 °C)	mg/L	5.0	30	IS 3025 (Part–44)
16	COD	mg/L	32	100	APHA (23rd Edition) 5220 B Open Reflux Method
17	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
18	Fluorides	mg/L	0.62	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
19	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
20	Nickel as Ni	mg/L	Not Detected	3	APHA (23rd Edition) 3111 B

Detection Limit: Oil & Grease: < 2.0 mg/L, Hexavalent Chromium as Cr^{+6}: < 0.05 mg/L, Total Chromium as Cr^{+3}: < 0.05 mg/L, Copper as Cu: < 0.02 mg/L, Zinc as Zn: < 0.05 mg/L, Phenolic Compounds: < 0.01 mg/L, Cyanide as CN: < 0.01 mg/L, Lead as Pb: < 0.02 mg/L, Nickel as Ni :< 0.02 mg/L, Sulphide: < 0.1 mg/L.

$: Limit#: As per CCA No. AWH: 103579 Date: 19-08-2019 Valid up to 31/03/2024.

#: Detail given by customer.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

AM/NS INDIA

AMNS / ENV / 12 – 22
22th December, 2022

Regional Officer,
Gujarat Pollution Control Board,
Plot No. 11-12/2,3
GIDC – Pandesara
Surat-394221

Sub: Submission of Environment Monitoring & Analysis Reports for the Month of November, 2022 as per the Water Act 1974, Air Act 1981 & Hazardous Waste Rules 2016.

Ref: (1) CC&A Order No. 107719 issued to ArcelorMittal Nippon Steel India Limited (HRC Division) **(GPCB ID: 20680)**
(2) CC&A Order No. 108150 issued to ArcelorMittal Nippon Steel India Limited (Conarc Division) **(GPCB ID: 14186)**
(3) CC &A Order No. 107720 issued to ArcelorMittal Nippon Steel India Limited (Pipe Mill Division) **(GPCB ID: 28839)**
(4) CC &A Order No. 107721 issued to ArcelorMittal Nippon Steel India Limited (Plate Mill Division) **(GPCB ID: 22968)**
(5) CC&A Order No.98611 issued to ArcelorMittal Nippon Steel India Limited (AMNS Township). **(GPCB ID: 20679)**
(6) CC&A Order No.103579 issued to ArcelorMittal Nippon Steel India Limited - Power Division **(GPCB ID: 24199)**

Dear Sir,

With reference to the above, we are submitting herewith

- Monthly Environment Monitoring Reports (Sampled & Analyzed by NABL accredited & MoEF &CC approved 3rd party laboratory.
- Production details & fuel consumption details
- Hazardous waste disposal details

Submitted for your kind record please.

G.P.C. Board
SURAT.
RECEIVED COPY
Sign
Date 22/12/22

Thanking you.

Yours faithfully,

For, **ArcelorMittal Nippon Steel India Ltd.**

R. S. SankaraSubramanian
Head - Environment

ArcelorMittal Nippon Steel India Limited
Registered Office: 27th km, Surat-Hazira Road,
Hazira, Surat 394 270 Gujarat, India
CIN U27100GJ1976FLC013787

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E contact@amns.in
W www.amns.in

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0266**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **HRC PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS	GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HRC PLANT / STEAM BOILER		
Date of Sampling			23/11/2022		
Time Of Sampling in Hr.			14:00 TO 14:50		
Lab ID			AMNS/2211/41		
Stack Height**			30		
Stack Diameter in Meter**			1.25		
1	Flue Gas Temperature	^0C	240	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	10.26	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	5.51	50	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	3.82	100	IS 11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	24.66	50	IS 11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	26253	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

GPCB apprved schedule II auditor · ISO 14001 · ISO 45001 · ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNS 0264**
Issue Date	:	**02/12/2022**
Customer's Ref.	:	**WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**HRC PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS		GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HRC PLANT			
			RE – HEATING FURNACE - 1	RE – HEATING FURNACE - 2		
Date of Sampling			22/11/2022	22/11/2022		
Time Of Sampling in Hr.			11:35 TO 12:35	11:45 TO 12:45		
Lab ID			AMNS/2211/38	AMNS/2211/39		
Stack Height**			88.5	88.5		
Stack Diameter in Meter**			4.02	4.02		
1	Flue Gas Temperature	^0C	318	335	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	8.82	7.84	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	7.62	7.92	100	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	3.86	4.89	40	IS 11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	23.86	27.61	125	IS 11255 (Part- VII)
6	Stack Flow	Nm^3/Hr	201761	174196	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0265A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **HRC PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HRC PLANT				
			ELECTRIC ARC FURNACE 1 & 2	ELECTRIC ARC FURNACE 3 & CANOPY	ELECTRIC ARC FURNACE -4		
Date of Sampling			10/11/2022	07/11/2022	10/11/2022		
Time Of Sampling in Hr.			11:30 TO 12:30	12:00 TO 13:00	14:30 TO 15:30		
Lab ID			AMNS/2211/ 23	AMNS/2211/ 16	AMNS/2211/ 24		
Stack Height**			45	45	45		
Stack Diameter in Meter**			4.0	5.7	5.8		
1	Flue Gas Temperature	^0C	72	76	84	--	IS:11255(Part-III)
2	Velocity of Flue Gas	m/Sec	13.34	13.26	13.36	--	IS:11255(Part-III)
3	Particulate Matter	mg/Nm^3	22.64	28.76	26.48	80	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	518905	1035635	1055829	--	IS:11255(Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

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TEST CERTIFICATE FOR STACK GAS MONITORING

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0285**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**Heat Recovery Steam Generator HRSG -25 MW Waste Heat Recovery Based Power Plant**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS	GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HRSG -25 MW		
Date of Sampling			25/11/2022		
Time of Sampling in Hr.			10:30 TO 11:30		
Lab ID			AMNS/2211/44 (A1 TO C1)		
Stack Height**			60		
Stack Diameter in Meter**			5.0		
1	Flue Gas Temperature	^0C	152	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	12.33	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	6.12	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	5.34	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NO_x	ppm	23.56	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	607620	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0268**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **CRM PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS		GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			CRM PLANT			
			BOILER NO. 1 & 2	BAF		
Date of Sampling			16/11/2022	16/11/2022		
Time Of Sampling in Hr.			10:10 TO 11:10	12:20 TO 13:10		
Lab ID			AMNS/2211/29 (A1 TO C1)	AMNS/2211/29 (A2 TO C2)		
Stack Height**			30	30		
Stack Diameter in Meter**			1.4	0.5		
1	Flue Gas Temperature	^{0}C	124	84	--	IS 11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	9.41	10.51	--	IS 11255 (Part-III)
3	Particulate Matter	mg/Nm^3	6.68	9.42	50	IS 11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	5.47	3.84	100	IS 11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	27.52	24.44	50	IS 11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	38984	6167	--	IS 11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0270A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**PICKLING LINE PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PICLIKNG LINE					
			HCL SCRUBBER LINE 1	HCL SCRUBBER LINE 2	ARP (ACID REGENERATION PLANT)	HCL SCRUBBER LINE 3		
Date of Sampling			16/11/2022	16/11/2022	NOVEMBER-22	16/11/2022		
Time Of Sampling in Hr.			10:30 TO 11:00	11:20 TO 11:50	****	15:50 TO 16:20		
Lab ID			AMNS/2211/ 26	AMNS/2211/ 27	****	AMNS/2211/ 28		
Stack Height**			25	25	25	32		
Stack Diameter in Meter**			1.2	1.2	0.6	0.80		
1	Flue Gas Temperature	^0C	106	108	****	75	--	IS:11255 (Part-III)
2	HCl	mg/Nm^3	8.42	9.75	****	7.24	20	USEPA Method 26A

**Details provided by customer.
Note: ****.Stack was not monitored due to safety issue.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0269**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**CRM & Galvanizing PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			CRM PLANT		GALVANIZING			
			FUME EXRACTION SYSTEM 1	FUME EXRACTION SYSTEM 2	GAS SCRUBBER LINE 1	GAS SCRUBBER LINE 2		
Date of Sampling			24/11/2022	24/11/2022	24/11/2022	24/11/2022		
Time Of Sampling in Hr.			10:30 TO 11:00	14:20 TO 15:00	11:30 TO 12:00	12:30 TO 13:00		
Lab ID			AMNS/2211/42 (A3 TO B3)	AMNS/2211/42 (A4 TO B4)	AMNS/2211/42 (A1 TO B1)	AMNS/2211/42 (A2 TO B2)		
Stack Height**			30	30	20	20		
Stack Diameter in Meter**			2.0	2.0	0.6	0.6		
1	Flue Gas Temperature	^0C	82	82	256	264	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	9.49	9.52	12.25	7.46	--	IS:11255 (Part-III)
3	Sulfur Dioxide as SO_2	mg/Nm^3	5.30	4.28	5.31	4.96	40	IS:11255 (Part-II)
4	Oxides of Nitrogen as NOX	mg/Nm^3	16.89	20.60	17.54	19.53	25	IS:11255 (Part-VII)
5	Stack Flow	Nm^3/Hr	89823	89844	6982	4200	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0262A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **HBI PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS					GPCB NORMS **	TEST/ SAMPLING METHOD
Location of Sampling			HBI PLANT						
			RECUPERATOR – 1	RECUPERATOR – 2	RECUPERATOR – 3	RECUPERATOR – 4	RECUPERATOR – 5		
Date of Sampling			21/11/2022	04/11/2022	21/11/2022	25/11/2022	NOVEMBER 2022		
Time Of Sampling in Hr.			10:30 TO 11:20	10:40 TO 11:40	11:30 TO 12:20	14:30 TO 15:30	****		
Lab ID			AMNS/2211 /37A	AMNS/2211 /13A	AMNS/2211 /37B	AMNS/2211 /44A	****		
Stack Height**			40	40	40	40	40		
Stack Diameter in Meter**			3.7	3.7	3.7	3.46	4.31		
1	Flue Gas Temperature	^0C	340	342	336	354	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	16.68	17.11	16.41	17.86	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	7.52	5.62	8.42	7.58	****	50	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	312116	319524	309103	285628	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0263A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **HBI PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS					GPCB NORMS **	TEST/ SAMPLING METHOD
Location of Sampling			HBI PLANT						
			PROCESS DUST COLLECTION SYSTEM MODULE - 1	PROCESS DUST COLLECTION SYSTEM MODULE - 2	PROCESS DUST COLLECTION SYSTEM MODULE - 3	PROCESS DUST COLLECTION SYSTEM MODULE - 4	PROCESS DUST COLLECTION SYSTEM MODULE - 5		
Date of Sampling			25/11/ 2022	25/11/ 2022	21/11/ 2022	25/11/ 2022	NOVEMBER 2022		
Time Of Sampling in Hr.			11:10 TO 12:10	15:00 TO 16:00	14:30 TO 15:20	14:30 TO 15:30	****		
Lab ID			AMNS/ 2211/43	AMNS/ 2211/45	AMNS/ 2211/37	AMNS/ 2211/44	****		
Stack Height**			20	20	20	20	20		
Stack Diameter in Meter**			0.875	0.875	0.875	0.7	0.7		
1	Flue Gas Temperature	^0C	70	64	65	78	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	17.27	18.47	15.56	17.47	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	16.46	17.82	16.34	11.38	****	40	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	32289	35196	29566	20488	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST CERTIFICATE FOR STACK GAS MONITORING

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED **AM/NS HAZIRA PLANT** **27th KM, SURAT HAZIRA ROAD,** **SURAT – 394270, GUJARAT, INDIA.**	Test Report No. : **PL/ AMNS 0267** Issue Date : **02/12/2022** Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**LIME PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			LIME PLANT					
			KILN 1	KILN 2	KILN 3	KILN 4		
Date of Sampling			01/11/2022	01/11/2022	01/11/2022	01/11/2022		
Time Of Sampling in Hr.			14:20 TO 15:00	15:15 TO 15:55	10:30 TO 11:20	11:35 TO 12:25		
Lab ID			AMNS/2211/02	AMNS/2211/03	AMNS/2211/04	AMNS/2211/05		
Stack Height**			45	45	45	45		
Stack Diameter in Meter**			1.061	1.061	1.061	1.061		
1	Flue Gas Temperature	^0C	86	76	75	84		IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	17.32	16.22	16.42	15.86	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	32.46	29.46	26.48	31.82	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	45501	43878	44502	42011	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0273**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **BLAST FURNACE PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS					GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			BLAST FURNACE PLANT						
			CAST HOUSE	STOCK HOUSE	BOILER 1 & 2	STOVE & FUME EXTRACTION	DE DUSTING MIXER HMDP		
Date of Sampling			17/11/2022	17/11/2022	19/11/2022	17/11/2022	24/11/2022		
Time Of Sampling in Hr.			14:00 TO 15:00	11:30 TO 12:30	15:40 TO 16:30	11:00 TO 12:00	11:00 TO 12:00		
Lab ID			AMNS/2211 /31	AMNS/2211 /30	AMNS/2211/ 36 (A1 TO C1)	AMNS/2211/31 (A1 TO C1)	AMNS/2211 /42		
Stack Height**			45	45	100	75	50		
Stack Diameter in Meter**			5.0	5.0	4.0	5.5	4.1		
1	Flue Gas Temperature	^0C	74	53	156	226	86	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	10.64	9.83	10.53	9.64	9.52	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	18.76	18.42	5.76	7.24	8.52	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	3.84	5.37	5.14	4.33	7.14	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	23.45	22.40	23.67	25.16	22.61	50	IS:11255 (Part-VII)
6	Carbon Monoxide	%	0.0020	0.0021	0.0023	0.0015	0.0014	1.0	NDIR Digital Gas Analyzer
7	Stack Flow	Nm^3/Hr	641976	632452	329993	490120	373597	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0284A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **PULVERIZED COAL INJECTION (PCI)**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS	GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PULVERIZED COAL INJECTION (PCI)		
Date of Sampling			17/11/2022		
Time of Sampling in Hr.			14:00 TO 15:00		
Lab ID			AMNS/2211/31 (A2 TO C2)		
Stack Height**			50		
Stack Diameter in Meter**			1.3		
1	Flue Gas Temperature	^0C	77	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	13.31	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	90.48	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	4.92	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NO_x	ppm	22.56	50	IS:11255 (Part-VII)
6	Carbon Monoxide	%	0.0021	1.0	NDIR Digital Gas Analyzer
7	Stack Flow	Nm^3/Hr	53916	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED **AM/NS HAZIRA PLANT** **27th KM, SURAT HAZIRA ROAD,** **SURAT – 394270, GUJARAT, INDIA.**	Test Report No. : **** Issue Date : **** Customer's Ref. : ****

STACK DETAILS

Location of Sampling	:	**SINTER PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS		GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			SINTER PLANT			
			DE – DUSTING	WASTE GAS		
Date of Sampling			NOVEMBER 2022	NOVEMBER 2022		
Time Of Sampling in Hr.			****	****		
Lab ID			****	****		
Stack Height**			30	60		
Stack Diameter in Meter**			3.0	4.5		
1	Flue Gas Temperature	^0C	****	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	****	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	****	****	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	****	****	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	****	****	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	****	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was not in operation on the date of monitoring.

Ravi Jarwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0271**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **CONARC PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			CONARC PLANT				
			FURNACE 1.1	FURNACE 1.2	FURNACE 2.1 & 2.2		
Date of Sampling			05/11/2022	05/11/2022	22/11/2022		
Time Of Sampling in Hr.			11:30 TO 12:10	14:40 TO 15:40	14:40 TO 15:40		
Lab ID			AMNS/2211/14	AMNS/2211/15	AMNS/2211/40		
Stack Height**			45	45	45		
Stack Diameter in Meter**			6.13	6.13	7.2		
1	Flue Gas Temperature	^0C	74	84	80	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	16.36	15.46	16.46	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	10.38	12.62	16.83	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	6.29	5.37	3.82	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	24.63	23.75	27.17	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	1486401	1364889	2030313	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0275**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **CSP MILL PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS						GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			CSP MILL PLANT							
			TUNNEL FURNACE A -1	TUNNEL FURNACE A -2	TUNNEL FURNACE A -3	TUNNEL FURNACE B – 1	TUNNEL FURNACE B - 2	TUNNEL FURNACE B – 3		
Date of Sampling			11/11/ 2022	11/11/ 2022	11/11/ 2022	10/11/ 2022	10/11/ 2022	10/11/ 2022		
Time Of Sampling in Hr.			10:40 TO 11:30	11:45 TO 12:35	14:30 TO 15:20	11:00 TO 11:50	12:30 TO 13:30	14:50 TO 15:40		
Lab ID			AMNS/ 2211/25 (A5 TO C5)	AMNS/ 2211/25 (A6 TO C6)	AMNS/ 2211/25 (A7 TO C7)	AMNS/ 2211/24 (A1 TO C1)	AMNS/ 2211/24 (A2 TO C2)	AMNS/ 2211/24 (A3 TO C3)		
Stack Height**			60	60	60	60	60	60		
Stack Diameter in Meter**			2.1	2.0	1.8	2.336	2.336	1.93		
1	Flue Gas Temperature	°C	746	708	738	748	742	746	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	17.02	17.52	16.85	16.58	17.57	16.64	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm³	8.76	6.42	6.70	7.42	8.56	6.76	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	5.50	6.09	6.50	6.34	4.95	3.78	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	23.90	21.75	24.65	25.88	26.45	23.37	50	IS:11255 (Part-VII)
6	Stack Flow	Nm³/Hr	61872	59996	45246	74338	79217	51018	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST CERTIFICATE FOR STACK GAS MONITORING

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Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0276**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **CSP MILL PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			CSP MILL PLANT				
			TUNNEL FURNACE C-1	TUNNEL FURNACE C-2	TUNNEL FURNACE C-3		
Date of Sampling			14/11/2022	14/11/2022	14/11/2022		
Time Of Sampling in Hr.			11:00 TO 12:00	11:30 TO 12:30	14:10 TO 15:10		
Lab ID			AMNS/2211/25 (A8 TO C08)	AMNS/2211/25 (A9 TO C9)	AMNS/2211/25 (A10 TO C10)		
Stack Height**			60	60	60		
Stack Diameter in Meter**			2.0	2.0	2.0		
1	Flue Gas Temperature	^0C	715	720	730	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	16.91	18.23	17.86	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	9.42	8.42	6.58	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	5.57	5.89	5.33	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	24.78	24.55	25.14	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	57428	61523	59821	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

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TEST CERTIFICATE FOR STACK GAS MONITORING

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Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0272A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling	:	**HBI MODULE PLANT**			
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Stack Gas Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Test /Sampling Method	:	**As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HBI MODULE PLANT					
			RECUPERATOR-6	PDCS – 6	JUNCTION HOUSE # 23	JUNCTION HOUSE # 24		
Date of Sampling			11/11/2022	28/11/2022	10/11/2022	NOVEMBER 2022		
Time Of Sampling in Hr.			14:10 TO 15:00	12:00 TO 13:00	11:50 TO 15:50	****		
Lab ID			AMNS/2211/25A	AMNS/2211/46	AMNS/2211/25	****		
Stack Height**			40	20	30	30		
Stack Diameter in Meter**			4.31	0.7	0.7	0.7		
1	Flue Gas Temperature	^0C	276	81	52	****		IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	18.62	18.36	18.85	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	5.66	28.62	14.42	****	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	529126	21343	23809	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0280**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **COREX PLANT**
Date of Sampling : **As per table** Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.** Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS		GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			COREX PLANT			
			DE – DUSTING COAL TRANSPORTATION COREX 1	DE – DUSTING COAL TRANSPORTATION COREX 2		
Date of Sampling			03/11/2022	09/11/2022		
Time Of Sampling in Hr.			10:30 TO 11:10	11:10 TO 12:00		
Lab ID			AMNS/2211/10	AMNS/2211/22		
Stack Height**			30	18		
Stack Diameter in Meter**			1.39	1.39		
1	Flue Gas Temperature	^0C	58	62	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	14.38	12.24	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	18.62	16.58	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	70303	59115	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0281**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **COREX PLANT**
Date of Sampling : **As per table** Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.** Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			COREX PLANT				
			DE – DUSTING COAL DRYING COREX LINE 123	DE – DUSTING COAL DRYING COREX LINE 456	DE – DUSTING COAL DRYING COREX LINE 789		
Date of Sampling			03/11/2022	03/11/2022	03/11/2022		
Time Of Sampling in Hr.			14:00 TO 14:40	11:30 TO 12:30	15:00 TO 16:00		
Lab ID			AMNS/2211/11	AMNS/2211/12	AMNS/2211/13		
Stack Height**			30	30	20		
Stack Diameter in Meter**			2.3	2.3	2.3		
1	Flue Gas Temperature	^0C	56	56	74	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	15.86	15.54	14.36	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	19.76	23.56	20.96	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	214226	209331	183344	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0282**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **COREX PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			COREX PLANT					
			FES STOCK HOUSE OXIDE LINE COREX 1	FES STOCK HOUSE OXIDE LINE COREX 2	FES STOCK HOUSE COAL LINE COREX 1	FES STOCK HOUSE COAL LINE COREX 2		
Date of Sampling			23/11/2022	08/11/2022	08/11/2022	08/11/2022		
Time Of Sampling in Hr.			11:40 TO 12:20	14:00 TO 14:40	10:30 TO 11:10	15:00 TO 15:40		
Lab ID			AMNS/2211/41A	AMNS/2211/18	AMNS/2211/19	AMNS/2211/20		
Stack Height**			30	30	30	30		
Stack Diameter in Meter**			1.9	1.9	1.9	1.9		
1	Flue Gas Temperature	^0C	62	69	71	66		IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	14.98	14.24	14.76	15.46	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	22.48	18.63	13.04	22.76	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	135576	126060	130130	138118	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was not in operation on the date of monitoring.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0283A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **COREX PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			COREX PLANT				
			FES CAST HOUSE LINE COREX 1	FES CAST HOUSE LINE COREX 2	DE – DUSTING COAL BLENDING		
Date of Sampling			08/11/2022	09/11/2022	NOVEMBER 2022		
Time Of Sampling in Hr.			12:00 TO 12:40	14:20 TO 15:10	****		
Lab ID			AMNS/2211/17	AMNS/2211/21	****		
Stack Height**			30	30	20		
Stack Diameter in Meter**			4.18	4.18	1.5		
1	Flue Gas Temperature	^0C	62	66	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	12.35	14.46	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	33.44	26.86	****	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	539442	624386	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0274**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **LIME PLANT - B**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			LIME PLANT – B				
			KILN # 5	KILN # 6	KILN # 7		
Date of Sampling			02/11/2022	02/11/2022	02/11/2022		
Time Of Sampling in Hr.			14:05 TO 14:45	15:10 TO 15:50	10:50 TO 11:30		
Lab ID			AMNS/2211/06	AMNS/2211/07	AMNS/2211/08		
Stack Height**			45	45	45		
Stack Diameter in Meter**			1.2	1.2	1.2		
1	Flue Gas Temperature	^0C	114	116	102	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	14.76	14.12	15.24	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	23.88	29.52	26.76	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	46117	43854	49150	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0277A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **PIPE MILL PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PIPE MILL PLANT					
			COATING DEDUSTING BLOWER 1	COATING DEDUSTING BLOWER 2	COATING DEDUSTING BLOWER 3	COATING DEDUSTING BLOWER 4		
Date of Sampling			18/11/2022	18/11/2022	18/11/2022	NOVEMBER 2022		
Time Of Sampling in Hr.			11:00 TO 11:40	12:10 TO 12:50	14:20 TO 15:00	****		
Lab ID			AMNS/2211/32	AMNS/2211/33	AMNS/2211/34	****		
Stack Height**			30	30	30	30		
Stack Diameter in Meter**			0.65	1.42	0.65	0.41		
1	Flue Gas Temperature	^0C	70	66	68	****		IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	13.46	13.94	14.25	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	17.58	9.42	29.68	****	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	13892	69635	14832	****	--	IS:11255 (Part-III)

**Details provided by customer
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0286A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **AM/NS Power Division Plant**
Date of Sampling : **As per table** Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.** Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS			GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			HRSG-1	HRSG-2	HRSG-3		
Date of Sampling			NOVEMBER 2022	19/11/2022	NOVEMBER 2022		
Time of Sampling in Hr.			****	14:20 TO 15:20	****		
Lab ID			****	AMNS/2211/36 (A2 TO C2)	****		
Stack Height**			68.2	68.2	68.2		
Stack Diameter in Meter**			5.7	5.7	5.7		
1	Flue Gas Temperature	^0C	****	116	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	****	15.28	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	****	Not Detected	****	50	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	mg/Nm^3	****	20.09	****	200	IS:11255 (Part-II)
5	Oxides of Nitrogen as NO_X	mg/Nm^3	****	31.58	****	300	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	****	1067046	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0278**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **PLATE MILL PLANT**
Date of Sampling : **As per table** Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.** Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS				GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PLATE MILL PLANT					
			NORMACIZING FURNACE 1	NORMACIZING FURNACE 2	AUSTENIZING FURNACE 1	AUSTENIZING FURNACE 2		
Date of Sampling			15/11/2022	15/11/2022	15/11/2022	15/11/2022		
Time Of Sampling in Hr.			10:30 TO 11:30	11:00 TO 12:00	14:00 TO 15:00	14:20 TO 15:20		
Lab ID			AMNS/2211/25 (A1 TO C1)	AMNS/2211/25 (A2 TO C2)	AMNS/2211/25 (A3 TO C3)	AMNS/2211/25 (A4 TO C4)		
Stack Height**			30	30	30	30		
Stack Diameter in Meter**			1.70	1.70	1.62	1.62		
1	Flue Gas Temperature	°C	120	123	118	122		IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	13.93	13.62	12.96	14.24	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	24.75	31.62	15.75	11.28	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	6.13	6.07	4.41	4.49	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	26.53	23.85	27.42	26.77	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	85832	83246	72853	79457	--	IS:11255 (Part-III)

**Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

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TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNS 0279A**
Issue Date : **02/12/2022**
Customer's Ref. : **WO.NO.: AM/NS-HAZ/ SCC/4400158745 Date:19.02.2022**

STACK DETAILS

Location of Sampling : **PLATE MILL PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS		GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PLATE MILL PLANT			
			TEMPERING FURNACE	RE-HEATING 1 & 2		
Date of Sampling			16/11/2022	NOVEMBER 2022		
Time Of Sampling in Hr.			15:10 TO 16:10	****		
Lab ID			AMNS/2211/29 (A3 TO C3)	****		
Stack Height**			30	106		
Stack Diameter in Meter**			1.42	3.64		
1	Flue Gas Temperature	^0C	126	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	14.62	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	8.46	****	150	IS:11255 (Part-I)
4	Sulfur Dioxide as SO_2	ppm	4.68	****	100	IS:11255 (Part-II)
5	Oxides of Nitrogen as NOX	ppm	22.65	****	50	IS:11255 (Part-VII)
6	Stack Flow	Nm^3/Hr	61980	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was not monitored due to safety issue.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR STACK GAS MONITORING

QF/7.8/28-ST
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : ****
Issue Date : ****
Customer's Ref. : ****

STACK DETAILS

Location of Sampling : **PLATE MILL PLANT**
Date of Sampling : **As per table**
Protocol (purpose) : **Stack Gas Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd.**
Test /Sampling Method : **As per table**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULTS	GPCB NORMS**	TEST/ SAMPLING METHOD
Location of Sampling			PLATE MILL PLANT / COLD LEVELER		
Date of Sampling			NOVEMBER 2022		
Time Of Sampling in Hr.			****		
Lab ID			****		
Stack Height**			30		
Stack Diameter in Meter**			1.4		
1	Flue Gas Temperature	^0C	****	--	IS:11255 (Part-III)
2	Velocity of Flue Gas	m/Sec	****	--	IS:11255 (Part-III)
3	Particulate Matter	mg/Nm^3	****	150	IS:11255 (Part-I)
4	Stack Flow	Nm^3/Hr	****	--	IS:11255 (Part-III)

**Details provided by customer.
Note: **** Stack was shut down entire month.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0355A**
Issue Date	:	**29/11/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754Date:19.02.2022**

Description of Sample	:	**ETP Outlet (Outlet -1 HRC Division)**			
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling Date	:	**12/11/2022**	Protocol (purpose)	:	**QC**
Packing/ Seal	:	**Sealed**	Lab ID	:	**AMNW/2211/16**
Sample Receipt Date	:	**14/11/2022**	Test Parameters	:	**As per table**
Date of Starting of Test	:	**14/11/2022**	Date of Completion of Test	:	**21/11/2022**

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	–	7.63	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	30.8	40	IS 3025 (Part–9)
3	Total Suspended Solids	mg/L	13	100	IS3025(Part-17)
4	Total Dissolved Solids	mg/L	491	Not Specified	IS 3025 (Part 16)
5	Oil & Grease	mg/L	Not Detected	10	APHA(23rd Edition)5520 B
6	BOD (3 Days @ 27 °C)	mg/L	7.84	30	IS 3025 (Part-44)
7	COD	mg/L	29.7	100	APHA (23rdEdition) 5220 B Open Reflux Method
8	Iron as Fe	mg/L	0.35	-	APHA (23rd Edition) 3500 Fe B
9	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
10	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
11	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
12	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
13	Fluoride as F	mg/L	0.75	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
14	Zinc as Zn	mg/L	0.23	5.0	APHA (23rd Edition) 3111 B
15	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
16	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
17	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
18	Ammonical Nitrogen as NH_3	mg/L	5.26	50	IS 3025 (Part-34) Nesslerization Method
19	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part–43) Aminoantipyrine Method
20	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
21	Chloride as Cl	mg/L	85	600	IS 3025 (Part–32) Argentometric Method
22	Sulphate as SO_4	mg/L	30.17	1000	IS 3025 (Part-24) Turbidimetric method
23	Colour	Co-pt	80	100	IS 3025 (Part–4)
24	Bio-assay test	%	100 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L,Sulphide as S: 0.1 mg/L, Cyanide as CN: 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L,Arsenic as As: 0.001 mg/L,Oil& Grease :2.0 mg/L.

H. T. Shah
Lab. Manager

Dr. Arun Bajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

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TEST CERTIFICATE FOR ETP WATER

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0351A**
Issue Date	:	**29/11/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754Date:19.02.2022**

Description of Sample	:	**ETP Outlet (Final Outlet -2 Plate Mill Division)**			
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Quantity/No. of Samples	:	**10 Lit/One**
Sampling Date	:	**12/11/2022**	Protocol (purpose)	:	**QC**
Packing/ Seal	:	**Sealed**	Lab ID	:	**AMNW/2211/12**
Sample Receipt Date	:	**14/11/2022**	Test Parameters	:	**As per table**
Date of Starting of Test	:	**14/11/2022**	Date of Completion of Test	:	**21/11/2022**

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULT	LIMIT#	TEST METHOD
1	pH Value	--	7.02	6.50 - 8.50	IS 3025 (Part-11) Electrometric Method
2	Temperature	°C	29.3	40	IS 3025 (Part-9)
3	Total Suspended Solids	mg/L	54	100	IS3025(Part-17)
4	Total Dissolved Solids	mg/L	1305	Not Specified	IS 3025 (Part 16)
5	Oil & Grease	mg/L	3.9	10	APHA(23rd Edition)5520 B
6	BOD (3 Days @ 27 °C)	mg/L	18	30	IS 3025 (Part-44)
7	COD	mg/L	72	100	APHA (23rdEdition) 5220 B Open Reflux Method
8	Iron as Fe	mg/L	0.98	-	APHA (23rd Edition) 3500 Fe B
9	Total Chromium as Cr^{+3}	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
10	Hexavalent Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
11	Copper as Cu	mg/L	Not Detected	2.0	APHA (23rd Edition) 3111 B
12	Sulphide as S	mg/L	Not Detected	0.5	APHA (23rd Edition) 4500 S2 F Iodometric method
13	Fluoride as F	mg/L	1.13	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
14	Zinc as Zn	mg/L	0.074	5.0	APHA (23rd Edition) 3111 B
15	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
16	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
17	Nickel as Ni	mg/L	Not Detected	3.0	APHA (23rd Edition) 3111 B
18	Ammonical Nitrogen as NH_3	mg/L	6.13	50	IS 3025 (Part-34) Nesslerization Method
19	Phenolic Compounds as C_6H_5OH	mg/L	Not Detected	1.0	IS 3025 (Part-43) Aminoantipyrine Method
20	Arsenic as As	mg/L	Not Detected	0.2	APHA (23rd Edition) 3114 B
21	Chloride as Cl	mg/L	204	600	IS 3025 (Part-32) Argentometric Method
22	Colour	Co-pt	30	100	IS 3025 (Part-4)
23	Bio-assay test	%	100 % Survival of fish after 96 hours in 100% effluent	Not Specified	OECD 203/IS:6582

#Details provided by customer.
Detection Limit, Phenolic Compound: 0.01 mg/L, Hexavalent Chromium as Cr^{+6}: 0.05 mg/L, Total Chromium as Cr: 0.05 mg/L, Copper as Cu: 0.02 mg/L, Sulphide as S:0.1 mg/L, Cyanide as CN : 0.01 mg/L, Lead as Pb: 0.02 mg/L, Nickel as Ni: 0.02 mg/L,Arsenic as As: 0.001 mg/L.

H. T. Shah
Lab. Manager

Dr. Arun Jaipai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986 ● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST REPORT

QF/7.8/28-WT
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNW 0358**
Issue Date	:	**29/11/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/ 4400158754 Date:19.02.2022**

Description of Sample	:	**Water Sample**	Quantity/No. of Samples	:	**01 Ltr/01**
Sampling Date	:	**12/11/2022**	Protocol (Purpose)	:	**QC**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**			
Sample Receipt Date	:	**14/11/2022**	Lab ID	:	**AMNW/2211/19**
Packing/Seal	:	**Sealed**	Test of Parameters	:	**As Per Table**
Date of Starting of Test	:	**14/11/2022**	Date of Completion	:	**21/11/2022**
Identification of Sample	:	**AM/NS Power Division Final Outlet#**			

RESULT TABLE

SR. NO.	PARAMETERS	UNIT	RESULT	GPCB NORMS$	TEST METHOD
1	pH	--	7.27	6.5 to 8.5	IS 3025 (Part–11) Electrometric Method
2	Total Suspended Solids	mg/L	32	100	IS 3025 (Part – 17)
3	Total Dissolved Solids	mg/L	513	Not Specified	IS 3025 (Part 16)
4	Oil & Grease	mg/L	4.0	20	APHA (23rd Edition) 5520 B
5	Hexavelant Chromium as Cr^{+6}	mg/L	Not Detected	0.1	APHA (23rd Edition) 3500 Cr B Colorimetric method
6	Total Chromium as Cr^{+3}	mg/L	Not Detected	2	APHA (23rd Edition) 3111 B
7	Copper as Cu	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
8	Zinc as Zn	mg/L	Not Detected	1	APHA (23rd Edition) 3111 B
9	Iron as Fe	mg/L	0.21	Not specified	APHA (23rd Edition) 3500 Fe B Phenantroline Method
10	Phosphate as PO_4	mg/L	0.73	1	APHA (23rd Edition) 4500-P-C
11	Temperature	°C	29.7	Not More than 5 °C higher the intake Water temperature	IS 3025 (Part–9)
12	Colour	Co-pt	40	100	IS 3025 (Part–4)
13	Phenolic Compounds	mg/L	Not Detected	1	IS 3025 (Part–43) Aminoantipyrine Method
14	Sulphide	mg/L	Not Detected	2	APHA (23rd Edition) 4500 S2 F Iodometric method
15	Ammonical Nitrogen	mg/L	3.69	50	IS 3025 (Part-34) Nesslerization Method
16	BOD (5 days at 20 °C)	mg/L	5.3	30	IS 3025 (Part–44)
17	COD	mg/L	20	100	APHA (23rd Edition) 5220 B Open Reflux Method
18	Cyanide as CN	mg/L	Not Detected	0.2	APHA (23rd Edition) 4500 CN E Colorimetric Method
19	Fluorides	mg/L	Not Detected	1.5	APHA (23rd Edition) 4500 F D SPANDS Method
20	Lead as Pb	mg/L	Not Detected	0.1	APHA (23rd Edition) 3111 B
21	Sulphate as SO_4	mg/L	21.57	1000	IS 3025 (Part-24) Turbidimetric method
22	Nickel as Ni	mg/L	Not Detected	3	APHA (23rd Edition) 3111 B

Detection Limit: Oil & Grease: < 2.0 mg/L, Hexavalent Chromium as Cr^{+6}: < 0.05 mg/L, Total Chromium as Cr^{+3}: < 0.05 mg/L, Copper as Cu: < 0.02 mg/L, Zinc as Zn: < 0.05 mg/L, Phenolic Compounds: < 0.01 mg/L, Cyanide as CN: < 0.01 mg/L, Lead as Pb: < 0.02 mg/L, Nickel as Ni :< 0.02 mg/L,Fluorides:;0.05 mg/L. Sulphide: < 0.1 mg/L.
$: Limit#: As per CCA No. AWH: 103579 Date: 19-08-2019 Valid up to 31/03/2024.
#: Detail given by customer.

H. T. Shah
Lab. Manager

Dr. Arun Sajpai
Lab Manager(Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

Arcelormittal Nippon Steel India Ltd.
(Formerly Essar Steel India ltd.)

27th KM,Surat-Hajira Road Hazira,
Gujarat-394270

MARINE MONITORING WORK & ANALYSIS
(WO NO: AMNS-HAZ/SCC/4400160963)

FOR THE MONTH OF NOVEMBER-2022

ENPRO
Environment,
Energy, Water
Project Consultant

Enpro Enviro Tech and Engineers Pvt Ltd.
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TAPI WATER ANALYSIS REPORTS

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ENPRO Enviro Tech and Engineers Pvt. Ltd.

Environmental Testing Laboratory

Laboratory : Plot No. D/29/16-17, Road No. 17, Hojiwala Industrial Estate, Sachin Palsana Road, Sachin, Surat- 394 230. Gujarat, INDIA.
Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008407F	Issue Date : 03/12/2022
ULR No : TC588522000008407F	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)** 27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-1			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08407

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
1	pH	-	7.20(at 25.0°C)	IS 3025 (Part-11):1983
2	Temperature	°C	27	IS 3025 (Part-11):1983
3	Turbidity	NTU	9.7	IS 3025 (Part-10):1984
4	Total Suspended Solids	mg/L	536	IS 3025 (Part-17):1984
5	Dissolved Oxygen (DO)	mg/L	5.1	IS 3025 (Part-38):1989 Clause 4
6	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	BDL	IS 3025 (Part-10):1993
7	Chloride (as Cl)	mg/L	20290	IS 3025 (Part-32):1988
8	NItrite Nitrogen (as NO_2-N)	mg/L	0.16	IS 3025 (Part-34):1988 Clause 4
9	Nitrate Nitrogen (as NO_3-N)	mg/L	0.39	IS 3025 (Part-34):1988 Clause 3
10	Potassium (as K)	mg/L	360	IS 3025 (Part-45):1993 Clause 5
11	Calcium (as Ca)	mg/L	369	IS 3025 (Part-40):1991 Clause 5
12	Ammonia (as NH_3)	mg/L	2.5	IS 3025 (Part-17):1984
13	Cyanide (as CN-)	mg/L	BDL	APHA-23 rd Edition (Part-4000,Section : 4500 CN-)E
14	Phenolic Compound (Phenol)	mg/L	BDL	IS 3025 (Part-34):1988 Clause 5
15	Salinity	ppm	30280	APHA 23rd Edition (Part 2000, Section: 2520 B)

Note: BDL: - Below Detectable Limit (BOD <2 mg/L, Cyanide <0.02 mg/L, Phenol <0.2 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

ENPRO
Environment, Energy, Water Project Consultant

ENPRO Enviro Tech and Engineers Pvt. Ltd.

Environmental Testing Laboratory

Laboratory : Plot No. D/29/16-17, Road No. 17, Hojiwala Industrial Estate, Sachin Palsana Road, Sachin, Surat- 394 230. Gujarat, INDIA.
Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008407F	Issue Date : 03/12/2022
ULR No : TC588522000008407F	Discipline : Chemical	Group : Residues In Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-1			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08407

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
16	Copper (as Cu)	mg/L	BDL	IS 3025 (Part- 42):1992 Clause 6
17	Cadmium (as Cd)	mg/L	BDL	IS 3025 (Part-41):1992 Clause 5
18	Zinc (as Zn)	mg/L	BDL	IS 3025 (Part-49):1994 Clause 6
19	Iron (as Fe)	mg/L	0.27	IS 3025 (Part- 53):2003 Clause 7
20	Mercury (as Hg)	mg/L	BDL	APHA -23rd Edition (Part – 3000, Section : 3112 B):2017

Note: BDL: - Below Detectable Limit (Cu<0.01 mg/L, Cd<0.01 mg/L, Zn<0.05 mg/L, Hg<0.001 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Yogesh Tarsariya(Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

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Project Consultant

ENPRO Enviro Tech and Engineers Pvt. Ltd.

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Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TEST REPORT

Format No : QR/7.8/01	Test Report No : ETL/007883/22	Issue Date : 03/12/2022
ULR No : N.A.	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-1			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08407

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
21	Total Nitrogen	mg/L	3.36	Calculation Method

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
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*** End of Report ***

11136

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Environmental Testing Laboratory

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Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008408F	Issue Date : 03/12/2022
ULR No : TC588522000008408F	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-2			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08408

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
1	pH	-	7.28(at 25.0°C)	IS 3025 (Part-11):1983
2	Temperature	°C	27	IS 3025 (Part-11):1983
3	Turbidity	NTU	10.0	IS 3025 (Part-10):1984
4	Total Suspended Solids	mg/L	600	IS 3025 (Part-17):1984
5	Dissolved Oxygen (DO)	mg/L	5.3	IS 3025 (Part-38):1989 Clause 4
6	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	BDL	IS 3025 (Part-10):1993
7	Chloride (as Cl)	mg/L	18608	IS 3025 (Part-32):1988
8	NItrite Nitrogen (as NO_2-N)	mg/L	0.13	IS 3025 (Part-34):1988 Clause 4
9	Nitrate Nitrogen (as NO_3-N)	mg/L	0.22	IS 3025 (Part-34):1988 Clause 3
10	Potassium (as K)	mg/L	310	IS 3025 (Part-45):1993 Clause 5
11	Calcium (as Ca)	mg/L	239	IS 3025 (Part-40):1991 Clause 5
12	Ammonia (as NH_3)	mg/L	2.4	IS 3025 (Part-17):1984
13	Cyanide (as CN-)	mg/L	BDL	APHA-23 rd Edition (Part-4000,Section : 4500 CN-)E
14	Phenolic Compound (Phenol)	mg/L	BDL	IS 3025 (Part-34):1988 Clause 5
15	Salinity	ppm	29350	APHA 23rd Edition (Part 2000, Section: 2520 B)

Note: BDL: - Below Detectable Limit (BOD <2 mg/L, Cyanide <0.02 mg/L, Phenol <0.2 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

11137

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Environmental Testing Laboratory

Laboratory : Plot No. D/29/16-17, Road No. 17, Hojiwala Industrial Estate,
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Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008408F	Issue Date : 03/12/2022
ULR No : TC588522000008408F	Discipline : Chemical	Group : Residues in Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-2			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08408

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
16	Copper (as Cu)	mg/L	BDL	IS 3025 (Part- 42):1992 Clause 6
17	Cadmium (as Cd)	mg/L	BDL	IS 3025 (Part-41):1992 Clause 5
18	Zinc (as Zn)	mg/L	BDL	IS 3025 (Part-49):1994 Clause 6
19	Iron (as Fe)	mg/L	0.25	IS 3025 (Part- 53):2003 Clause 7
20	Mercury (as Hg)	mg/L	BDL	APHA -23rd Edition (Part – 3000, Section : 3112 B):2017

Note: BDL: - Below Detectable Limit (Cu<0.01 mg/L, Cd<0.01 mg/L, Zn<0.05 mg/L, Hg<0.001 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Yogesh Tarsariya(Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
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ENPRO
Environment, Energy, Water
Project Consultant

ENPRO Enviro Tech and Engineers Pvt. Ltd.

Environmental Testing Laboratory

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Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TEST REPORT

Format No : QR/7.8/01	Test Report No : ETL/007884/22	Issue Date : 03/12/2022
ULR No : N.A.	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-2			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08408

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
21	Total Nitrogen	mg/L	2.96	Calculation Method

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

*** End of Report ***

11139

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Environmental Testing Laboratory

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TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008409F	Issue Date : 03/12/2022
ULR No : TC588522000008409F	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-3			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08409

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
1	pH	-	7.80(at 25.0°C)	IS 3025 (Part-11):1983
2	Temperature	°C	27	IS 3025 (Part-11):1983
3	Turbidity	NTU	9.60	IS 3025 (Part-10):1984
4	Total Suspended Solids	mg/L	580	IS 3025 (Part-17):1984
5	Dissolved Oxygen (DO)	mg/L	5.0	IS 3025 (Part-38):1989 Clause 4
6	Biochemical Oxygen Demand (3 Days at 27°C)	mg/L	BDL	IS 3025 (Part-10):1993
7	Chloride (as Cl)	mg/L	19498	IS 3025 (Part-32):1988
8	NItrite Nitrogen (as NO_2-N)	mg/L	0.14	IS 3025 (Part-34):1988 Clause 4
9	Nitrate Nitrogen (as NO_3-N)	mg/L	0.29	IS 3025 (Part-34):1988 Clause 3
10	Potassium (as K)	mg/L	330	IS 3025 (Part-45):1993 ClauseDL 5
11	Calcium (as Ca)	mg/L	284	IS 3025 (Part-40):1991 Clause 5
12	Ammonia (as NH_3)	mg/L	2.1	IS 3025 (Part-17):1984
13	Cyanide (as CN-)	mg/L	BDL	APHA-23 rd Edition (Part-4000,Section : 4500 CN-)E
14	Phenolic Compound (Phenol)	mg/L	BDL	IS 3025 (Part-34):1988 Clause 5
15	Salinity	ppm	32150	APHA 23rd Edition (Part 2000, Section: 2520 B)

Note: BDL: - Below Detectable Limit (BOD <2 mg/L, Cyanide <0.02 mg/L, Phenol <0.2 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

ENPRO
Environment, Energy, Water
Project Consultant

ENPRO Enviro Tech and Engineers Pvt. Ltd.

Environmental Testing Laboratory

Laboratory : Plot No. D/29/16-17, Road No. 17, Hojiwala Industrial Estate,
Sachin Palsana Road, Sachin, Surat- 394 230. Gujarat, INDIA.
Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TC -5885

TEST REPORT

Format No : QR/7.8/01	Test Report No : TC588522000008409F	Issue Date : 03/12/2022
ULR No : TC588522000008409F	Discipline : Chemical	Group : Residues In Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	:	Tapi-3			
Sampling By	:	Sufiyan Shaikh	Quantity/No. of Sample	:	5 L / 1 No.
Date of Sampling	:	29/11/2022	Packing/Seal	:	Sealed
Sample Received Date	:	29/11/2022	Protocol (purpose)	:	Water Analysis
Date of Starting of Test	:	29/11/2022	Date of Completion	:	03/12/2022
Sampling Method	:	IS 3025 (Part-1)	Sample ID	:	1122/W08409

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
16	Copper (as Cu)	mg/L	BDL	IS 3025 (Part- 42):1992 Clause 6
17	Cadmium (as Cd)	mg/L	BDL	IS 3025 (Part-41):1992 Clause 5
18	Zinc (as Zn)	mg/L	BDL	IS 3025 (Part-49):1994 Clause 6
19	Iron (as Fe)	mg/L	0.22	IS 3025 (Part- 53):2003 Clause 7
20	Mercury (as Hg)	mg/L	BDL	APHA -23rd Edition (Part – 3000, Section : 3112 B):2017

Note: BDL: - Below Detectable Limit (Cu<0.01 mg/L, Cd<0.01 mg/L, Zn<0.05 mg/L, Hg<0.001 mg/L)

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Yogesh Tarsariya(Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

ENPRO
Environment, Energy, Water Project Consultant

ENPRO Enviro Tech and Engineers Pvt. Ltd.

Environmental Testing Laboratory

Laboratory : Plot No. D/29/16-17, Road No. 17, Hojiwala Industrial Estate, Sachin Palsana Road, Sachin, Surat- 394 230. Gujarat, INDIA.
Lab Ph. : +91-9512874754 E-mail : lab@enpro.co.in

TEST REPORT

Format No : QR/7.8/01	Test Report No : ETL/007885/22	Issue Date : 03/12/2022
ULR No : N.A.	Discipline : Chemical	Group : Water

Customer's Name & Address: **M/s. ArcelorMittal Nippon Steel India Limited. (Formerly Essar Steel India Limited)**
27 th KM, Surat-Hazira Road, Hazira-394270, Gujarat, India.

Description of Sample	: Tapi-3		
Sampling By	: Sufiyan Shaikh	Quantity/No. of Sample	: 5 L / 1 No.
Date of Sampling	: 29/11/2022	Packing/Seal	: Sealed
Sample Received Date	: 29/11/2022	Protocol (purpose)	: Water Analysis
Date of Starting of Test	: 29/11/2022	Date of Completion	: 03/12/2022
Sampling Method	: IS 3025 (Part-1)	Sample ID	: 1122/W08409

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	METHOD REFERENCE
21	Total Nitrogen	mg/L	2.82	Calculation Method

For, ENPRO Enviro Tech and Engineers Pvt. Ltd. (ETL)

CHECKEDBY
Sweety Patel (Dy.TM)

AUTHORIZED SIGNATORY
Chintan Desai (TM)

Note: This report is subject to terms & conditions mentioned overleaf.
Note 2: Details about MU and Decision Rules are available with laboratory and same will be provided upon request.

*** End of Report ***

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POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0089**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Briquette House**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11/2022	07/11/2022	08/11/2022	14/11/2022	15/11/2022	21/11/2022	22/11/2022	28/11/2022	29/11/2022	
Lab ID AMNA/2211 [A-H]		01	08	15	22	29	36	43	50	57	
Respirable Particulate Matter (PM_{10})	µg/m³	76.0	71.5	65.8	61.1	67.5	79.4	68.4	77.7	70.3	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	41.0	39.9	30.2	26.6	34.2	42.6	37.8	44.6	36.3	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	0.80	ND*	ND*	0.42	ND*	0.71	ND*	0.64	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	0.55	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	2.22	ND*	ND*	ND*	ND*	2.10	ND*	2.48	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	9.95	ND*	ND*	ND*	ND*	10.35	ND*	10.22	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.78	0.72	0.66	0.84	0.88	0.62	0.65	0.77	0.73	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	38.2	34.3	30.7	33.2	45.4	32.6	37.0	46.6	40.2	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	28.3	23.7	27.2	29.8	25.8	21.6	16.6	19.9	22.5	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	43.6	34.1	40.8	44.9	31.8	38.0	35.2	39.5	30.9	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	33.7	24.6	31.5	21.8	30.4	23.9	32.0	29.0	27.7	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0090**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**SVC MRSS Plant A**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11/2022	07/11/2022	08/11/2022	14/11/2022	15/11/2022	21/11/2022	22/11/2022	28/11/2022	29/11/2022	
Lab ID AMNA/2211 [A-H]		02	09	16	23	30	37	44	51	58	
Respirable Particulate Matter (PM_{10})	µg/m³	70.2	62.2	50.5	55.3	63.6	74.0	64.2	72.3	61.5	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	37.5	33.6	25.6	22.8	31.9	39.0	35.7	40.5	32.5	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	0.73	ND*	ND*	0.31	ND*	0.63	ND*	0.51	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	ND*	ND*	2.16	ND*	ND*	2.36	ND*	2.14	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	8.86	ND*	ND*	ND*	ND*	10.16	ND*	9.92	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.45	0.50	0.81	0.41	0.46	0.37	0.52	0.82	0.29	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	24.5	32.5	21.1	30.0	39.3	34.4	19.4	42.4	31.5	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	24.7	17.7	21.2	25.9	16.5	13.6	9.5	23.4	18.6	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	34.5	27.8	32.1	38.9	26.6	35.1	39.2	33.1	25.5	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	26.8	23.4	17.0	27.5	32.4	24.7	28.5	16.3	25.4	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0094**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**CRM Office Building**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11 /2022	07/11 /2022	08/11 /2022	14/11 /2022	15/11 /2022	21/11 /2022	22/11 /2022	28/11 /2022	29/11 /2022	
Lab ID AMNA/2211 [A-H]		06	13	20	27	34	41	48	55	62	
Respirable Particulate Matter (PM_{10})	µg/ m^3	57.2	48.0	62.0	43.5	53.8	59.5	46.6	63.0	51.3	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg /m^3	30.5	24.4	27.6	15.6	25.3	22.2	19.0	32.0	29.8	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/ m^3	0.16	ND*	ND*	0.22	ND*	0.56	ND*	0.34	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/ m^3	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/ m^3	2.43	ND*	ND*	ND*	ND*	2.26	ND*	2.32	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/ m^3	8.42	ND*	ND*	ND*	ND*	6.52	ND*	ND*	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/ m^3	0.26	0.61	0.18	0.24	0.56	0.25	0.55	0.63	0.33	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/ m^3	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg /m^3	19.3	16.8	26.2	15.4	30.9	18.3	24.3	31.5	34.5	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg /m^3	11.0	7.1	16.8	19.4	9.6	18.4	15.1	12.3	14.4	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/ m^3	20.6	16.7	27.7	24.7	35.4	29.4	22.2	28.7	21.5	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/ m^3	17.4	22.4	18.4	13.8	21.5	28.1	19.5	27.3	15.5	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m^3, Benzene as C_6H_6: 2.0 µg/m^3, Lead as Pb: 0.1 µg/m^3, Arsenic as As: 2.0 ng/m^3.
Nickel as Ni: 5.0 ng/m^3. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0091**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Hazira Village**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11/2022	07/11/2022	08/11/2022	14/11/2022	15/11/2022	21/11/2022	22/11/2022	28/11/2022	29/11/2022	
Lab ID AMNA/2211 [A-H]		03	10	17	24	31	38	45	52	59	
Respirable Particulate Matter (PM_{10})	µg/m³	58.8	63.4	55.7	51.6	60.4	70.9	57.5	67.2	59.5	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	29.4	32.1	28.4	24.5	30.4	38.7	34.5	36.6	33.4	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	0.26	ND*	ND*	ND*	ND*	0.22	ND*	0.26	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	ND*	ND*	ND*	ND*	ND*	2.26	ND*	2.18	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	ND*	ND*	ND*	ND*	ND*	9.42	ND*	7.52	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.24	0.39	0.32	0.29	0.43	0.27	0.41	0.34	0.26	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	22.5	28.5	23.5	26.0	35.6	27.2	29.4	32.3	44.6	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	23.3	16.4	18.4	24.5	20.3	17.5	14.8	21.5	15.4	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	33.4	29.3	31.5	35.3	25.7	30.4	32.4	27.6	22.4	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	25.3	18.5	27.5	20.5	26.4	19.5	22.4	24.6	21.1	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0092**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**AM/NS TOWNSHIP**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11 /2022	07/11 /2022	08/11 /2022	14/11 /2022	15/11 /2022	21/11 /2022	22/11/ 2022	28/11/ 2022	29/11/ 2022	
Lab ID AMNA/2211 [A-H]		04	11	18	25	32	39	46	53	60	
Respirable Particulate Matter (PM_{10})	µg/m³	49.4	44.5	57.1	39.2	48.9	60.9	42.6	56.9	46.7	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	22.4	19.4	17.3	20.6	16.8	24.2	27.4	23.1	25.3	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.19	0.54	0.38	0.34	0.44	0.21	0.42	0.23	0.22	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	11.3	23.7	14.0	20.4	18.3	12.7	16.7	24.3	28.9	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	19.0	14.3	12.3	10.0	7.3	16.9	11.0	17.8	8.9	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	25.3	30.8	18.9	16.5	29.7	26.7	31.7	24.2	13.7	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	13.4	16.5	14.1	25.8	12.9	20.7	15.2	11.9	22.7	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
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POLLUCON LABORATORIES PVT. LTD.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0093**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Near Suprabhat (Plant B Safety Office)**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11/2022	07/11/2022	08/11/2022	14/11/2022	15/11/2022	21/11/2022	22/11/2022	28/11/2022	29/11/2022	
Lab ID AMNA/2211 [A-H]		05	12	19	26	33	40	47	54	61	
Respirable Particulate Matter (PM_{10})	µg/m³	46.5	53.9	37.2	50.3	42.3	69.4	54.3	48.4	55.3	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	24.3	28.1	15.3	13.3	18.7	29.0	32.0	21.4	23.4	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	ND*	ND*	ND*	ND*	ND*	0.60	ND*	0.55	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.52	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.36	0.40	0.30	0.31	0.57	0.39	0.48	0.27	0.32	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	16.2	21.2	18.6	12.5	24.9	28.9	31.5	14.5	37.2	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	16.0	11.0	7.5	17.2	12.6	9.6	19.6	8.8	10.2	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	26.9	21.2	23.0	41.3	17.8	25.6	28.6	15.5	24.3	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	12.8	20.0	22.3	19.8	15.3	26.4	21.2	25.1	16.0	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/28-AQ
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNA 0095**
Issue Date	:	**05/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**AM/NS Power Division– Control Room Building**	Sampling Procedure	:	**As per table**
Date of Sampling	:	**As per table**	Protocol (purpose)	:	**Ambient Air Quality Monitoring**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**	Lab ID	:	**As per table**

RESULT TABLE

TEST PARAMETER	UNIT	DATE OF SAMPLING								LIMIT#	TEST/ SAMPLING METHOD
		01/11/2022	07/11/2022	08/11/2022	14/11/2022	15/11/2022	21/11/2022	22/11/2022	28/11/2022	29/11/2022	
Lab ID AMNA/2211 [A-H]		07	14	21	28	35	42	49	56	63	
Respirable Particulate Matter (PM_{10})	µg/m³	65.5	57.8	42.7	47.5	58.6	66.5	59.0	69.7	41.2	100	IS:5182 (Part-23)
Particulate Matter ($PM_{2.5}$)	µg/m³	33.5	31.5	22.4	19.1	28.2	34.8	23.4	29.6	15.6	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Lead as Pb	µg/m³	0.10	ND*	ND*	ND*	ND*	0.50	ND*	0.18	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzo (a) Pyrene (BaP)- particulate phase only	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	1.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Arsenic as As	ng/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	6.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Nickel as Ni	ng/m³	7.62	ND*	ND*	ND*	ND*	ND*	ND*	5.76	ND*	20	CPCB guidelines for AAQM (Vol.I, NAAQMS/36/2012-13)
Carbon Monoxide as CO$	mg/m³	0.53	0.86	0.70	0.68	0.89	0.49	0.80	0.60	0.47	4.0	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Benzene as C_6H_6	µg/m³	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*	5.0	IS 5182 (Part-11)
Ammonia (NH_3)	µg/m³	21.6	27.8	13.8	25.5	33.4	20.3	26.4	17.8	45.3	400	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
Sulphur Dioxide (SO_2)	µg/m³	22.1	12.4	10.4	20.0	18.2	11.2	13.4	15.8	7.3	80	IS:5182 (Part-2)
Oxides of Nitrogen	µg/m³	30.8	23.2	21.2	33.9	22.3	31.5	18.3	25.7	19.3	80	IS:5182 (Part-6)
Ozone (O_3)$	µg/m³	18.6	14.8	26.2	31.7	28.5	15.8	23.0	19.2	12.6	180	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)

Limit#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
Detection Limit: Benzo (a) Pyrene (BaP) - particulate phase only: 0.5 ng/m³, Benzene as C_6H_6: 2.0 µg/m³, Lead as Pb: 0.1 µg/m³, Arsenic as As: 2.0 ng/m³.
Nickel as Ni: 5.0 ng/m³. $: Ozone (O3) & Carbon Monoxide (CO): Sampling 1 Hrs .

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
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TEST CERTIFICATE

QF/7.8/28-EX
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/AMNN 0127A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**EAF 1 – 4 (Outside EAF – 2 Control Room)**			
Date of Sampling	:	**24/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**25/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**25/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**28/11/2022**	Lab ID	:	**AMNN/2211/08**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3416	4000	IS 5182 (Part 23) SOP AAQM SPM -01
2	Sulphur Dioxide (SO_2)	$\mu g/m^3$	33.8	200	IS 5182 (Part 2), SOP AAQM SO_2 - 03
3	Oxides of Nitrogen	$\mu g/m^3$	39.2	150	IS 5182 (Part 6), SOP AAQM NO_2 - 04
4	Lead as Pb	$\mu g/m^3$	0.68	2.0	IS 5182 (Part 22) 04 SOP AAQM Lead - 05
5	Carbon Monoxide as CO	$\mu g/m^3$	3826	5000	SOP: AAQM CO-12

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
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TEST CERTIFICATE

QF/7.8/28-EX
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNN 0130A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Lime Plant – A (Kiln – 4 Ground Floor)**			
Date of Sampling	:	**25/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**26/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**26/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**28/11/2022**	Lab ID	:	**AMNN/2211/11**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3870	4000	IS 5182 (Part 23) SOP AAQM SPM -01

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNN 0128A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Lime Plant – B (Kiln – 5 Ground Floor)**			
Date of Sampling	:	**24/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**25/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**25/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**26/11/2022**	Lab ID	:	**AMNN/2211/09**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3776	4000	IS 5182 (Part 23) SOP AAQM SPM -01

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. :	**PL/ AMNN 0125A**
Issue Date :	**01/12/2022**
Customer's Ref. :	**WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Sinter Plant (Near Control Room)**			
Date of Sampling	:	**18/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**19/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**19/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**21/11/2022**	Lab ID	:	**AMNN/2211/07**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3702	4000	IS 5182 (Part 23) SOP AAQM SPM -01
2	Sulphur Dioxide (SO_2)	$\mu g/m^3$	27.3	200	IS 5182 (Part 2), SOP AAQM SO_2 - 03
3	Oxides of Nitrogen	$\mu g/m^3$	32.8	150	IS 5182 (Part 6), SOP AAQM NO_2 - 04

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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TEST CERTIFICATE

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Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/ AMNN 0120A**
Issue Date	:	**01/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Corex 1 (Cast House Ramp – 1)**			
Date of Sampling	:	**10/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**11/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**11/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**12/11/2022**	Lab ID	:	**AMNN/2211/02**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3312	4000	IS 5182 (Part 23) SOP AAQM SPM -01

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/ AMNN 0119A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	Corex 2 (Cast House Ramp – 2)			
Date of Sampling	:	09/11/2022	Sampling by	:	Pollucon Laboratories Pvt. Ltd.
Sample Receipt Date	:	10/11/2022	Sampling Procedure	:	As per table
Date of Starting of Test	:	10/11/2022	Protocol (purpose)	:	Workplace Monitoring
Date of Completion of Test	:	12/11/2022	Lab ID	:	AMNN/2211/01

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3624	4000	IS 5182 (Part 23) SOP AAQM SPM -01

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/AMNN 0121A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Conarc Furnance (Near Conarc Control Room)**			
Date of Sampling	:	**11/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**12/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**12/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**15/11/2022**	Lab ID	:	**AMNN/2211/03**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3280	4000	IS 5182 (Part 23) SOP AAQM SPM -01
2	Sulphur Dioxide (SO_2)	$\mu g/m^3$	42.3	200	IS 5182 (Part 2), SOP AAQM SO_2 - 03
3	Oxides of Nitrogen	$\mu g/m^3$	36.5	150	IS 5182 (Part 6), SOP AAQM NO_2 - 04
4	Lead as Pb	$\mu g/m^3$	0.58	2.0	IS 5182 (Part 22) 04 SOP AAQM Lead - 05
5	Carbon Monoxide as CO	$\mu g/m^3$	3632	5000	SOP AAQM CO-12

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE

QF/7.8/28-EX
Page: 1 of 1

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/AMNN 0123A**
Issue Date : **01/12/2022**
Customer's Ref. : **WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

Location of Sampling	:	**Blast Furnace (Near Control Room)**			
Date of Sampling	:	**17/11/2022**	Sampling by	:	**Pollucon Laboratories Pvt. Ltd.**
Sample Receipt Date	:	**18/11/2022**	Sampling Procedure	:	**As per table**
Date of Starting of Test	:	**18/11/2022**	Protocol (purpose)	:	**Workplace Monitoring**
Date of Completion of Test	:	**21/11/2022**	Lab ID	:	**AMNN/2211/05**

RESULT TABLE

SR. NO.	TEST PARAMETER	UNIT	RESULT	LIMIT#	METHOD OF MEASUREMENT
1	Particulate Matter (PM_{10})	$\mu g/m^3$	3526	4000	IS:5182 (Part 23) SOP AAQM SPM -01
2	Sulphur Dioxide (SO_2)	$\mu g/m^3$	37.6	200	IS 5182 (Part 2), SOP AAQM SO_2 - 03
3	Oxides of Nitrogen	$\mu g/m^3$	41.3	150	IS 5182 (Part 6), SOP AAQM NO_2 - 04
4	Lead as Pb	$\mu g/m^3$	0.72	2.0	IS 5182 (Part 22) 04 SOP AAQM Lead - 05
5	Carbon Monoxide as CO	$\mu g/m^3$	3812	5000	SOP: AAQM CO-12

#Details provided by customer.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR AMBIENT NOISE LEVEL MONITORING

QF/7.8/28-EX
Page: 1 of 2

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No.	:	**PL/AMNN 0126**
Issue Date	:	**01/12/2022**
Customer's Ref.	:	**WO. NO.: AM/NS-HAZ/ SCC/4400158751 Date:19.02.2022**

Sampling Date	:	**19/11/2022**
Test Method	:	**IS 9876 / IS 9989**
Sampling Location	:	**As per table**
Sampling By	:	**Pollucon Laboratories Pvt. Ltd.**

RESULT TABLE

SR. NO.	NAME OF THE LOCATION	OBSERVATION	
		DAY TIME dB(A)	NIGHT TIME dB(A)
1	HBI-Near CPP 31 MW	61.9	58.6
2	HBI-Near Admin Building	63.7	58.1
3	HBI- Near Jetty	59.2	56.3
4	HRC- Opp. EAF Entrance	69.5	64.2
5	Oxygen Plant	65.1	60.3
6	HRC- Near HSM	70.4	65.2
7	HRC - Material Gate	71.9	67.5
8	Hazira Village (Near School)	52.8	42.8
9	Hazira Village (Near Light House)	53.1	41.9
10	Hazira Village (Near Community Centre)	52.4	41.5
11	Township (Near School)	51.9	41.4
12	Township (Coil Club)	51.7	42.3
13	Near HBI Main Gate	70.2	63.4
14	Near HRC Main Gate	56.9	52.1

Continue...

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

POLLUCON LABORATORIES PVT. LTD.

TEST CERTIFICATE FOR AMBIENT NOISE LEVEL MONITORING

QF/7.8/28-EX
Page: 2 of 2

Customer's Name and Address :

M/s. ARCELORMITTAL NIPPON STEEL INDIA LIMITED
AM/NS HAZIRA PLANT
27th KM, SURAT HAZIRA ROAD,
SURAT – 394270, GUJARAT, INDIA.

Test Report No. : **PL/AMNN 0126**

Issue Date : **01/12/2022**

Customer's Ref. : **WO. NO.: AM/NS-HAZ/SCC/4400158751 Date:19.02.2022**

RESULT TABLE

SR. NO.	NAME OF THE LOCATION	OBSERVATION	
		DAY TIME dB(A)	NIGHT TIME dB(A)
15	Power 515 MW - Main Gate	69.8	62.3
16	AM/NS Power Division - Main Gate	65.7	58.9
17	CRM - Main Gate	70.3	62.5
18	Pipe Mill - Main Gate	60.1	56.1
19	Plate Mill - Main Gate	69.7	62.1
20	Conarc, Near Spice Canteen	71.7	64.7
21	Corex, Near COS-A Building	69.9	62.2
22	Oxygen Plant (ASU)	70.7	56.4
23	Blast Furnace	71.1	65.9
24	Sinter Plant	68.9	65.1
25	HBI / DRI (MOD 6)	71.2	63.7
26	Lime Plant-B	66.3	62.8
27	Power 270 MW	68.7	64.3
Ambient Air Quality Standards in respect of Noise for Industrial Area		**75 dB[A]**	**70 dB[A]**
Ambient Air Quality Standards in respect of Noise for Residential Area		**55 dB[A]**	**45 dB[A]**
Ambient Air Quality Standards in respect of Noise for Silence Zone		**50 dB[A]**	**40 dB[A]**

The silence zones are zones which are declared as such by the competent authority.
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.

Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● GPCB apprved schedule II auditor ● ISO 14001 ● ISO 45001 ● ISO 9001

"Pollucon House", Plot No. 5 & 6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart, Navjivan Circle,Udhana Magdalla Road, Surat-395007, Gujarat, India.
Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

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M/s. ArcelorMittal Nippon Steel India Limited
(Conarc Division)

Add: Plot No: 200/1-7, 200/9, 200/10, 200/12, 201, 202/1, 202/2, 203, 204/1, 204, 27th km Surat - Hazira Road, Hazira - 394 270, Dist. – Surat, Gujarat

Environment Audit Report

April - 2021 to March - 2022

VIDYABHARTI TRUST - UMRAKH

S. N. PATEL INSTITUTE OF TECHNOLOGY & RESEARCH CENTRE

CIVIL ENGINEERING DEPARTMENT

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e-mail :audit09eac@gmail.com / vbtdegree_umrakh@yahoo.co.in
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1st Monitoring

QUALITY OF TRADE EFFLUENT

Sr. No.	Parameter	Unit	GPCB Standards	Result 13/08/2021				
				ETP Inlet	ETP Outlet	Cooling Tower Inlet	Cooling Tower Outlet	Boiler Blow Down
1	pH	pH unit	6.5 to 8.5	7.54	7.78	7.84	7.56	7.78
2	Temperature	°C	40	29	27	37	29	34
3	Colour	Pt. Co.	100	10	05	05	>05	10
4	TSS	mg/L	100	32	28	42	28	54
5	Oil & Grease	mg/L	10	ND	ND	ND	ND	ND
6	Phenolic Comp.	mg/L	1	ND	ND	ND	ND	ND
7	Sulphides	mg/L	0.5	ND	ND	ND	ND	ND
8	Ammonical Nitrogen	mg/L	50	3.5	2.7	4.8	2.9	3.5
9	Total Chromium	mg/L	2	ND	ND	ND	ND	ND
10	Hexavalent Chromium	mg/L	0.1	ND	ND	ND	ND	ND
11	BOD_5^{20}	mg/L	30	18	8	8	5	5
12	COD	mg/L	100	62	31	35	16	35
13	Cyanide	mg/L	0.2	ND	ND	ND	ND	ND
14	Fluoride	mg/L	1.5	ND	ND	ND	ND	ND
15	Arsenic	mg/L	0.2	0.14	0.08	0.12	0.06	0.12
16	Lead	mg/L	0.1	0.12	0.06	0.08	ND	ND
17	Copper	mg/L	2	1.3	0.84	0.8	0.42	0.36
18	Nickel	mg/L	3	0.48	0.15	0.32	0.06	0.39
19	Zinc	mg/L	5	0.84	0.56	0.44	0.09	0.18
20	Chloride	mg/L	600	537	284	587	319	532
21	Sulphate	mg/L	1000	679	312	542	284	743
22	Bio-assay test	%	90	--	94 %	--	--	--

2nd Monitoring

QUALITY OF TRADE EFFLUENT

Sr. No.	Parameter	Unit	GPCB Standards	Result 18/12/2021				
				ETP Inlet	ETP Outlet	Cooling Tower Inlet	Cooling Tower Outlet	Boiler Blow Down
1	pH	pH unit	6.5 to 8.5	7.46	7.68	7.64	7.36	7.84
2	Temperature	°C	40	28	27	34	30	32
3	Colour	Pt. Co.	100	20	10	10	>05	20
4	TSS	mg/L	100	45	31	48	29	58
5	Oil & Grease	mg/L	10	ND	ND	ND	ND	ND
6	Phenolic Comp.	mg/L	1	ND	ND	ND	ND	ND
7	Sulphides	mg/L	0.5	ND	ND	ND	ND	ND
8	Ammonical Nitrogen	mg/L	50	3.8	2.8	5.2	2.6	3.8
9	Total Chromium	mg/L	2	ND	ND	ND	ND	ND
10	Hexavalent Chromium	mg/L	0.1	ND	ND	ND	ND	ND
11	BOD_5^{20}	mg/L	30	22	10	10	8	6
12	COD	mg/L	100	78	35	43	24	39
13	Cyanide	mg/L	0.2	ND	ND	ND	ND	ND
14	Fluoride	mg/L	1.5	ND	ND	ND	ND	ND
15	Arsenic	mg/L	0.2	0.16	0.12	0.18	0.08	0.15
16	Lead	mg/L	0.1	0.16	0.08	0.11	ND	ND
17	Copper	mg/L	2	1.4	0.92	0.56	0.45	0.39
18	Nickel	mg/L	3	0.42	0.18	0.38	0.07	0.45
19	Zinc	mg/L	5	0.82	0.54	0.48	0.14	0.22
20	Chloride	mg/L	600	548	315	546	285	564
21	Sulphate	mg/L	1000	674	418	576	326	684
22	Bio-assay test	%	90	--	95 %	--	--	--

3rd Monitoring

QUALITY OF TRADE EFFLUENT

Sr. No.	Parameter	Unit	GPCB Standards	Result 17/03/2022				
				ETP Inlet	ETP Outlet	Cooling Tower Inlet	Cooling Tower Outlet	Boiler Blow Down
1	pH	pH unit	6.5 to 8.5	7.28	7.16	7.62	7.24	7.72
2	Temperature	°C	40	31	29	34	30	33
3	Colour	Pt. Co.	100	30	10	20	10	40
4	TSS	mg/L	100	84	56	79	34	81
5	Oil & Grease	mg/L	10	ND	ND	ND	ND	ND
6	Phenolic Comp.	mg/L	1	ND	ND	ND	ND	ND
7	Sulphides	mg/L	0.5	ND	ND	ND	ND	ND
8	Ammonical Nitrogen	mg/L	50	6	4	8	5	4
9	Total Chromium	mg/L	2	ND	ND	ND	ND	ND
10	Hexavalent Chromium	mg/L	0.1	ND	ND	ND	ND	ND
11	BOD_5^{20}	mg/L	30	24	12	16	10	8
12	COD	mg/L	100	86	42	54	28	40
13	Cyanide	mg/L	0.2	ND	ND	ND	ND	ND
14	Fluoride	mg/L	1.5	ND	ND	ND	ND	ND
15	Arsenic	mg/L	0.2	0.18	0.14	0.22	0.12	0.14
16	Lead	mg/L	0.1	0.22	0.06	0.08	ND	ND
17	Copper	mg/L	2	1.52	1.14	0.84	0.52	0.48
18	Nickel	mg/L	3	0.58	0.22	0.42	0.12	0.52
19	Zinc	mg/L	5	1.14	0.84	0.96	0.34	0.28
20	Chloride	mg/L	600	648	415	667	380	584
21	Sulphate	mg/L	1000	682	426	678	410	614
22	Bio-assay test	%	90	--	94 %	--	--	--

ENVIRONMENTAL AUDIT REPORT
(AUDIT PERIOD : APRIL 2021 TO MARCH 2022)

M/s. ArcelorMittal Nippon Steel India Limited
(HRC Division)
Plot No.: 203-230,245-264,312-321,
@27 KM. Surat-Hazira Road,
Tal: Chorasi, Dist: Surat-394270

ENVIROCHEM AUDIT CELL
CHEMICAL ENGINEERING DEPARTMENT
SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED
N. G. PATEL POLYTECHNIC
At. ISROLI - AFWA, P.O. AFWA, TAL.: BARDOLI,
DIST.: SURAT - 394 620
E-MAIL : chem_ngp@yahoo.co.in, WEB SITE: www.ngpatelpoly.ac.in
PH. (02622) 223841, 225591. FAX : (02622) 227613

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Waste Water Analysis Report

Sr. No.	Parameters	Unit	Results		GPCB Permissible Limit
			ETP Inlet	ETP Outlet	
1	pH *	--	8.28	8.25	6.5-8.5
2	Temperature*	°C	28.8	28.8	40
3	Colour	Pt – Co Scale	10	29	100
4	Suspended Solids*	mg/L	14.3	0.4	100
5	COD *	mg/L	47.78	43.44	100
6	BOD	mg/L	16	11.2	30
7	Oil & Grease	mg/L	ND	ND	10
8	Ammonical Nitrogen	mg/L	0.84	0.28	50
9	Phenolic compounds	mg/L	ND	ND	1.0
10	Sulphides	mg/L	BDL	BDL	2.0
11	Cyanide	mg/L	ND	ND	0.2
12	Flouride	mg/L	ND	ND	1.5
13	Hexavalent Chromium*	mg/L	ND	ND	0.1
14	Total Chromium	mg/L	ND	ND	2.0
15	Copper	mg/L	ND	ND	2.0
16	Nickel	mg/L	ND	ND	3.0
17	Zinc	mg/L	ND	ND	5.0
18	Lead	mg/L	ND	ND	0.1

Sr. No.	Parameters	Unit	Boiler Blow Down	GPCB Permissible Limit
1	Suspended Solids*	mg/L	3.5	100
2	Oil & Grease	mg/L	ND	10
3	Total Copper	mg/L	ND	1.0
4	Total Iron	mg/L	ND	1.0

Sr. No.	Parameters	Unit	Cooling Water Blow Down	GPCB Permissible Limit
1	Free Available Chlorine	mg/L	0.5	0.5
2	Zinc	mg/L	ND	1.0
3	Hexavalent Chromium*	mg/L	ND	0.1
4	Total Chromium	mg/L	ND	0.2
5	Phosphate	mg/L	BDL	5.0

Note: ND – Not Detected, BDL – Below Detectable Limit, (*) – NABL accreditation parameters

N.G. PATEL POLYTECHNIC AT. ISROLI, PO. AFWA, TA. BARDOLI, DI. SURAT

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Waste Water Analysis Report

Sr. No.	Parameters	Unit	Results		GPCB Permissible Limit
			ETP Inlet	ETP Outlet	
1	pH *	--	6.8	7.5	6.5-8.5
2	Temperature*	°C	28	28	40
3	Colour	Pt – Co Scale	51	50	100
4	Suspended Solids*	mg/L	8.8	1.4	100
5	COD *	mg/L	23.28	BDL	100
6	BOD	mg/L	9.86	ND	30
7	Oil & Grease	mg/L	ND	ND	10
8	Ammonical Nitrogen	mg/L	1.34	0.56	50
9	Phenolic compounds	mg/L	ND	ND	1.0
10	Sulphides	mg/L	BDL	BDL	2.0
11	Cyanide	mg/L	ND	ND	0.2
12	Fluoride	mg/L	ND	ND	1.5
13	Hexavalent Chromium*	mg/L	BDL	BDL	0.1
14	Total Chromium	mg/L	BDL	BDL	2.0
15	Copper	mg/L	ND	ND	2.0
16	Nickel	mg/L	ND	ND	3.0
17	Zinc	mg/L	ND	ND	5.0
18	Lead	mg/L	ND	ND	0.1

Sr. No.	Parameters	Unit	Boiler Blow Down	GPCB Permissible Limit
1	Suspended Solids*	mg/L	14	100
2	Oil & Grease	mg/L	ND	10
3	Total Copper	mg/L	ND	1.0
4	Total Iron	mg/L	ND	1.0

Sr. No.	Parameters	Unit	Cooling Water Blow Down	GPCB Permissible Limit
1	Free Available Chlorine	mg/L	0.5	0.5
2	Zinc	mg/L	ND	1.0
3	Hexavalent Chromium*	mg/L	BDL	0.1
4	Total Chromium	mg/L	BDL	0.2
5	Phosphate	mg/L	BDL	5.0

Note: ND – Not Detected, BDL – Below Detectable Limit, (*) – NABL accreditation parameters

N.G. PATEL POLYTECHNIC AT. ISROLI, PO. AFWA, TA. BARDOLI, DI. SURAT

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Waste Water Analysis Report

Sr. No.	Parameters	Unit	Results		GPCB Permissible Limit
			ETP Inlet	ETP Outlet	
1	pH *	--	6.52	7.31	6.5-8.5
2	Temperature*	°C	29	28	40
3	Colour	Pt – Co Scale	46	38	100
4	Suspended Solids*	mg/L	11.3	3.5	100
5	COD *	mg/L	27.72	11.88	100
6	BOD	mg/L	8.93	3.33	30
7	Oil & Grease	mg/L	ND	ND	10
8	Ammonical Nitrogen	mg/L	2.59	0.84	50
9	Phenolic compounds	mg/L	ND	ND	1.0
10	Sulphides	mg/L	BDL	BDL	2.0
11	Cyanide	mg/L	ND	ND	0.2
12	Fluoride	mg/L	ND	ND	1.5
13	Hexavalent Chromium*	mg/L	BDL	BDL	0.1
14	Total Chromium	mg/L	BDL	BDL	2.0
15	Copper	mg/L	ND	ND	2.0
16	Nickel	mg/L	ND	ND	3.0
17	Zinc	mg/L	ND	ND	5.0
18	Lead	mg/L	ND	ND	0.1

Sr. No.	Parameters	Unit	Boiler Blow Down	GPCB Permissible Limit
1	Suspended Solids*	mg/L	10.04	100
2	Oil & Grease	mg/L	ND	10
3	Total Copper	mg/L	ND	1.0
4	Total Iron	mg/L	ND	1.0

Sr. No.	Parameters	Unit	Cooling Water Blow Down	GPCB Permissible Limit
1	Free Available Chlorine	mg/L	0.5	0.5
2	Zinc	mg/L	ND	1.0
3	Hexavalent Chromium*	mg/L	BDL	0.1
4	Total Chromium	mg/L	BDL	0.2
5	Phosphate	mg/L	BDL	5.0

Note: ND – Not Detected, BDL – Below Detectable Limit, (*) – NABL accreditation parameters

N.G. PATEL POLYTECHNIC AT. ISROLI, PO. AFWA, TA. BARDOLI, DI. SURAT

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ENVIRONMENTAL AUDIT REPORT

(APRIL 2021 TO MARCH 2022)

M/S. ARCELORMITTAL NIPPON STEEL INDIA LTD

(PIPE MILL DIVISON)

(GPCB ID: 28839)

PLOT NO:198,197,195,418,425,426,427,428,194,421.191,
192,193,422, 27KM SURAT HAZIRA ROAD,
HAZIRA - 394 270, TAL: CHORASI, DIST: SURAT.

ENVIRONMENT AUDIT CELL

TAPI DIPLOMA ENGINEERING COLLEGE
(Formerly known as S. T. B. S. College of Diploma Engineering)
SHREE SWAMI AATMANAND SARSWATI VIDYA SANKUL
VARACHHA ROAD, KAPODRA
SURAT – 395 006,

Email : stbs.envaudit08@gmail.com
Website: www.tapidiploma.org

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ANNEXURE - 19
QUALITY OF TRADE EFFLUENT

1st Monitoring: 09/07/2021

Sr. No.	Parameters / Description of Location:→	Unit	Analysis Result		GPCB Norms as per CCA
			Inlet	Final outlet	
1	Temperature	°C	26.7	26.9	40
2	pH	...	7.52	7.68	6.5 to 8.5
3	Colour	Pt. Co.	62	16	100
4	Total Suspended Solids	mg/L	102.40	42.56	100
5	Oil & Grease	mg/L	3.6	BDL*	10
6	COD	mg/L	956.86	88.46	100
7	BOD (5 days at 20°C)	mg/L	168.00	22.08	30
8	Phenolic Compound	mg/L	BDL*	BDL*	1
9	Sulphide	mg/L	BDL*	BDL*	2
10	Ammonical Nitrogen	mg/L	6.58	4.62	50
11	Total Chromium	mg/L	0.072	0.054	2
12	Hexavelent Chromium	mg/L	BDL*	BDL*	0.1
13	Cyanides	mg/L	BDL*	BDL*	0.2
14	Flourides	mg/L	1.24	1.30	1.5
15	Lead	mg/L	BDL*	BDL*	0.1
16	Copper	mg/L	BDL*	BDL*	2
17	Nickel	mg/L	BDL*	BDL*	3
18	Zinc	mg/L	BDL*	BDL*	5

Note:

- ✓ BDL*: Below Detectable Level
- ✓ Detection Limit: Phenolic Compound: <0.01, Sulphide: <0.1, Hexavalent Chromium :< 0.05 mg/L, CN:< 0.01 mg/L, Pb: <0.001 mg/L, Cu: <0.04 mg/L, Ni: <0.02 mg/L, Zn: <0.06 mg/L.

TAPI DIPLOMA ENGINEERING COLLEGE SURAT
ESTD : 2002

2nd Monitoring: 08/12/2021

Sr. No.	Parameters	Unit	Analysis Result		GPCB Norms as per CCA
	Description of Location:→		Inlet	Final outlet	
1	Temperature	°C	25.8	25.4	**40**
2	pH	...	7.67	8.34	**6.5 to 8.5**
3	Colour	Pt. Co.	55	12	**100**
4	Total Suspended Solids	mg/L	126.90	39.45	**100**
5	Oil & Grease	mg/L	2.8	<2.0	**10**
6	COD	mg/L	986.60	96.42	**100**
7	BOD (5 days at 20°C)	mg/L	158.20	21.75	**30**
8	Phenolic Compound	mg/L	0.095	BDL*	**1**
9	Sulphide	mg/L	BDL*	BDL*	**2**
10	Ammonical Nitrogen	mg/L	5.76	4.09	**50**
11	Total Chromium	mg/L	0.085	0.050	**2**
12	Hexavelent Chromium	mg/L	BDL*	BDL*	**0.1**
13	Cyanides	mg/L	BDL*	BDL*	**0.2**
14	Flourides	mg/L	1.44	1.28	**1.5**
15	Lead	mg/L	BDL*	BDL*	**0.1**
16	Copper	mg/L	BDL*	BDL*	**2**
17	Nickel	mg/L	BDL*	BDL*	**3**
18	Zinc	mg/L	BDL*	BDL*	**5**

Note:

- ✓ BDL*: Below Detectable Level
- ✓ Detection Limit: Phenolic Compound: <0.01, Sulphide: <0.1, Hexavalent Chromium :< 0.05 mg/L, CN:< 0.01 mg/L, Pb: <0.001 mg/L, Cu: <0.04 mg/L, Ni: <0.02 mg/L, Zn: <0.06 mg/L.

3rd Monitoring: 25/02/2022

Sr. No.	Parameters / Description of Location:→	Unit	Analysis Result: Inlet	Analysis Result: Final outlet	GPCB Norms as per CCA
1	Temperature	°C	26.6	26.9	**40**
2	pH	...	7.76	7.95	**6.5 to 8.5**
3	Colour	Pt. Co.	71	42.6	**100**
4	Total Suspended Solids	mg/L	104.82	48.41	**100**
5	Oil & Grease	mg/L	3.62	BDL*	**10**
6	COD	mg/L	442.38	78.62	**100**
7	BOD (5 days at 20°C)	mg/L	126.70	20.84	**30**
8	Phenolic Compound	mg/L	BDL*	BDL*	**1**
9	Sulphide	mg/L	BDL*	BDL*	**2**
10	Ammonical Nitrogen	mg/L	9.28	5.12	**50**
11	Total Chromium	mg/L	0.065	0.060	**2**
12	Hexavelent Chromium	mg/L	BDL*	BDL*	**0.1**
13	Cyanides	mg/L	BDL*	BDL*	**0.2**
14	Flourides	mg/L	1.22	1.16	**1.5**
15	Lead	mg/L	BDL*	BDL*	**0.1**
16	Copper	mg/L	BDL*	BDL*	**2**
17	Nickel	mg/L	BDL*	BDL*	**3**
18	Zinc	mg/L	BDL*	BDL*	**5**

Note:

- ✓ BDL*: Below Detectable Level
- ✓ Detection Limit: Phenolic Compound: <0.01, Sulphide: <0.1, Hexavalent Chromium :< 0.05 mg/L, CN:< 0.01 mg/L, Pb: <0.001 mg/L, Cu: <0.04 mg/L, Ni: <0.02 mg/L, Zn: <0.06 mg/L.

OVERALL POLLUTION LOAD

1st Monitoring (09/07/2021)	2nd Monitoring (08/12/2021)	3rd Monitoring (25/02/2022)	Avg. COD (mg/L)	COD (kg/day)
COD (Inlet)				
956.86	986.60	442.38	795.28	**1.22**
COD (Final Outlet)				
88.46	96.42	78.62	87.83	**0.14**

Note:

Wastewater generation: 46.75 KL/month =1.54 KL/day

No. of working days: Considered 365 days

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ENIRONMENTAL AUDIT REPORT

21-22

April2021 - March2022

ID-22968

ArcelorMittal Nippon Steel India Limited.(Plate Mill Division), Hazira (Surat)

CIVIL ENGINEERING DEPARTMENT
SVNIT, SURAT

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY • SURAT •

CLEAN ENVIRONMENT RESEARCH CENTRE

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ANNEXURE – 12
WATER ANALYSIS REPORT

Name & Address of the party : **ArcelorMittal Nippon Steel India Ltd. (Plate Mill Division)**
SURAT-HAZIRA , ROAD, POST
HAZIRA, Town: HAZIRA,
Tal: Chorasi Dist: Surat Pincode:394 270
Sampling by : DoCE, SVNIT, Surat
Nature of the sample : Water
Protocol (Purpose) : Environment Audit (1st Monitoring)
Date of Visit : 21/08/2021

Water Analysis Report

Sr. No.	Parameters	Unit	Results			Limit	Test Method
			SST Inlet	SST Outlet	Final Outlet		
1	pH	--	8.21	8.14	8.29	6.5-8.5	IS 3025 (Part 11)
2	Temperature	^{0}C	33.8	34.6	33.6	40	IS 3025 (Part 9)
3	Color	Pt – Co Scale	70	50	40	100	IS 3025 (Part 4)
4	Total Suspended Solids	mg/L	40	22	18	150	IS 3025 (Part 17)
5	Bio-Chemical Oxygen Demand (3 days 27oC)	mg/L	48	40	6	30	IS 3025 (Part 16)
6	Chemical Oxygen Demand	mg/L	196	140	25	100	IS 3025 (Part 44)
7	Oil & Grease	mg/L	10.4	4.2	3.6	10	APHA (23rd Edition)5220 B
8	Phenolic Compounds	mg/L	0.078	0.044	0.031	1	APHA(23rd Edition) 5520 B
9	Sulphides	mg/L	4.8	1.6	1.2	2	IS 3025 (Part 43)
10	Ammonical Nitrogen	mg/L	21.6	16.2	10.6	50	APHA(23rd Edition) 4500 S2 F
11	cyanide	mg/L	<0.01	<0.01	<0.01	0.2	APHA (23rd Edition) 4500 CN E
12	Hexavalent Chromium	mg/L	<0.05	<0.05	<0.05	0.1	APHA(23rd Edition) 3500 Cr B
13	Total Chromium	mg/L	0.082	0.032	0.016	2	APHA (23rd Edition) 3111 B
14	Copper	mg/L	0.095	0.052	0.044	2	APHA (23rd Edition) 3111 B
15	Nickel	mg/L	<0.02	<0.02	<0.02	2	APHA (23rd Edition) 3111 B
16	Zinc	mg/L	0.21	0.16	0.13	5	APHA (23rd Edition) 3111 B
17	Lead	mg/L	<0.02	<0.02	<0.02	0.1	APHA (23rd Edition) 3111 B
18	Iron	mg/L	0.56	0.32	0.2	3	APHA (23rd Edition) 3500 Fe B
19	fluoride	mg/L	0.75	0.65	0.5	1.5	APHA(23rd Edition) 4500F D
20	TDS	mg/L	697	729	740	2100	IS 3025 (Part 16)

Clean Environment Research Centre
SVNIT, Surat

Name & Address of the party : **ArcelorMittal Nippon Steel India Ltd. (Plate Mill Division)**
SURAT-HAZIRA , ROAD, POST
HAZIRA, Town: HAZIRA,
Tal: Chorasi Dist: Surat Pincode:394 270
Sampling by : DoCE, SVNIT, Surat
Nature of the sample : Water
Protocol (Purpose) : Environment Audit (2nd Monitoring)
Date of Visit : 22/12/2021

Water Analysis Report

Sr. No.	Parameters	Unit	Results			Limit	Test Method
			SST Inlet	SST Outlet	Final Outlet		
1	pH	--	8.12	8.06	8.13	6.5-8.5	IS 3025 (Part 11)
2	Temperature	^{0}C	32.6	33.1	33.3	40	IS 3025 (Part 9)
3	Color	Pt – Co Scale	90	40	30	100	IS 3025 (Part 4)
4	Total Suspended Solids	mg/L	68	28	21	150	IS 3025 (Part 17)
5	Bio-Chemical Oxygen Demand (3 days 27oC)	mg/L	45	35	8	30	IS 3025 (Part 16)
6	Chemical Oxygen Demand	mg/L	218	158	39	100	IS 3025 (Part 44)
7	Oil & Grease	mg/L	14.7	5.9	<2	10	APHA (23rd Edition)5220 B
8	Phenolic Compounds	mg/L	0.049	0.033	0.029	1	APHA(23rd Edition) 5520 B
9	Sulphides	mg/L	6.2	1.8	1.5	2	IS 3025 (Part 43)
10	Ammonical Nitrogen	mg/L	18.9	14.4	12.6	50	APHA(23rd Edition) 4500 S2 F
11	cyanide	mg/L	<0.01	<0.01	<0.01	0.2	APHA (23rd Edition) 4500 CN E
12	Hexavalent Chromium	mg/L	<0.05	<0.05	<0.05	0.1	APHA(23rd Edition) 3500 Cr B
13	Total Chromium	mg/L	0.065	0.042	0.033	2	APHA (23rd Edition) 3111 B
14	Copper	mg/L	0.063	0.049	0.016	2	APHA (23rd Edition) 3111 B
15	Nickel	mg/L	<0.02	<0.02	<0.02	2	APHA (23rd Edition) 3111 B
16	Zinc	mg/L	0.17	0.14	0.095	5	APHA (23rd Edition) 3111 B
17	Lead	mg/L	0.17	0.14	0.095	0.1	APHA (23rd Edition) 3111 B
18	Iron	mg/L	<0.2	<0.2	<0.2	3	APHA (23rd Edition) 3500 Fe B
19	fluoride	mg/L	0.85	0.78	0.72	1.5	APHA(23rd Edition) 4500F D
20	TDS	mg/L	1039	1014	894	1.5	IS 3025 (Part 16)

Clean Environment Research Centre
SVNIT, Surat

Name & Address of the party : **ArcelorMittal Nippon Steel India Ltd. (Plate Mill Division)**
SURAT-HAZIRA , ROAD, POST
HAZIRA, Town: HAZIRA,
Tal: Chorasi Dist: Surat Pincode:394 270
Sampling by : DoCE, SVNIT, Surat
Nature of the sample : Water
Protocol (Purpose) : Environment Audit (3rd Monitoring)
Date of Visit : 25/03/2022

Water Analysis Report

Sr. No.	Parameters	Unit	Results			Limit	Test Method
			SST Inlet	SST Outlet	Final Outlet		
1	pH	--	8.26	8.15	8.11	6.5-8.5	IS 3025 (Part 11)
2	Temperature	^{0}C	32.9	33.2	32.8	40	IS 3025 (Part 9)
3	Color	Pt – Co Scale	120	40	20	100	IS 3025 (Part 4)
4	Total Suspended Solids	mg/L	84	48	45	150	IS 3025 (Part 17)
5	Bio-Chemical Oxygen Demand (3 days 27oC)	mg/L	78	39	12	30	IS 3025 (Part 16)
6	Chemical Oxygen Demand	mg/L	296	142	50	100	IS 3025 (Part 44)
7	Oil & Grease	mg/L	11.2	3.8	2.6	10	APHA (23rd Edition)5220 B
8	Phenolic Compounds	mg/L	0.062	0.045	0.039	1	APHA(23rd Edition) 5520 B
9	Sulphides	mg/L	4.2	1.6	1.2	2	IS 3025 (Part 43)
10	Ammonical Nitrogen	mg/L	24.8	21.6	17.2	50	APHA(23rd Edition) 4500 S2 F
11	cyanide	mg/L	<0.01	<0.01	<0.01	0.2	APHA (23rd Edition) 4500 CN E
12	Hexavalent Chromium	mg/L	<0.05	<0.05	<0.05	0.1	APHA(23rd Edition) 3500 Cr B
13	Total Chromium	mg/L	0.072	0.059	0.052	2	APHA (23rd Edition) 3111 B
14	Copper	mg/L	0.099	0.065	0.059	2	APHA (23rd Edition) 3111 B
15	Nickel	mg/L	<0.02	<0.02	<0.02	2	APHA (23rd Edition) 3111 B
16	Zinc	mg/L	0.23	0.18	0.11	5	APHA (23rd Edition) 3111 B
17	Lead	mg/L	0.12	0.065	0.096	0.1	APHA (23rd Edition) 3111 B
18	Iron	mg/L	<0.2	<0.2	<0.2	3	APHA (23rd Edition) 3500 Fe B
19	fluoride	mg/L	0.75	0.69	0.68	1.5	APHA(23rd Edition) 4500F D
20	TDS	mg/L	1244	1218	1196	2100	IS 3025 (Part 16)

Clean Environment Research Centre
SVNIT, Surat

ENVIRONMENTAL AUDIT REPORT

APRIL 2021 TO MARCH 2022

M/S. ArcelorMittal Nippon Steel India Limited-Power Division

27th KM, Surat-Hazira Road,HAZIRA-394270
Gujarat, India.

ENVIRONMENTAL AUDIT LABORATORY

SHREE DHANVANTARY COLLEGE OF DIPLOMA ENGINEERING

DHANVANTARY CAMPUS
NEAR. KIM RAILWAY STATION,
DHANVANTARY COLLEGE ROAD, KIM (E)
TAL: OLPAD, DIST: SURAT-394110

CONTACT: (O) - 99041 55582
Email: sdcde.gpcb@gmail.com

ANNEXURE – 14
TRADE EFFLUENT ANALYSIS REPORT

1ST MONITORING VISIT : 28/07/2021				
SR. NO	PARAMETERS	UNIT	ETP Inlet	ETP Outlet
1	pH	--	9.12	8.21
2	Temperature	°C	32	30
3	Colour (pt. co scale)	co pt	45	40
4	Total Suspended solids (TSS)	mg/L	16	9
5	Biochemical Oxygen Demand,BOD3 27 °C	mg/L	9	7
6	Chemical Oxygen Demand (COD)	mg/L	30	20
7	Oil & Grease (O & G)	mg/L	BDL*	BDL*
8	Phenolic compound (as C6H5OH)	mg/L	BDL*	BDL*
9	Sulphide (as S)	mg/L	BDL*	BDL*
10	Ammonical Nitrogen (as N)	mg/L	BDL*	BDL*
11	Cyanide (as CN)	mg/L	BDL*	4.48
12	Flourides (as F)	mg/L	BDL*	BDL*
13	Hexavalent Chromium (as Cr+6)	mg/L	BDL*	BDL*
14	Total Chromium (as Cr)	mg/L	BDL*	BDL*
15	Copper (as Cu)	mg/L	BDL*	BDL*
16	Nickel (as Ni)	mg/L	BDL*	BDL*
17	Zinc (as Zn)	mg/L	BDL*	BDL*
18	Lead (as Pb)	mg/L	BDL*	BDL*

1ST MONITORING VISIT : 28/07/2021				
SR. NO	PARAMETERS	UNIT	HRSG Inlet	HRSG Outlet
1	Total Suspended solids (TSS)	mg/L	08	04
2	Oil & Grease (O & G)	mg/L	BDL*	BDL*
3	Copper (as Cu)	mg/L	BDL*	BDL*
4	Iron (as Fe)	mg/L	BDL*	BDL*

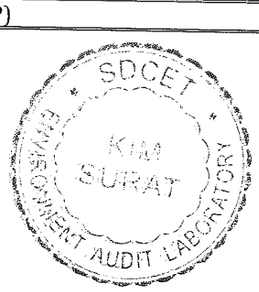
1ST MONITORING VISIT : 28/07/2021				
SR. NO	PARAMETERS	UNIT	Cooling Tower Inlet	Cooling Tower Outlet
1	Total Residual Chlorine	mg/L	BDL*	BDL*
2	Zinc (as Zn)	mg/L	BDL*	BDL*
3	Total Chromium (as Cr)	mg/L	BDL*	BDL*
4	Phosphate (as P)	mg/L	0.02	BDL*

SDCET ENVIRONMENT AUDIT LABORATORY KIM SURAT

2ND MONITORING VISIT : 05/01/2022				
SR. NO	PARAMETERS	UNIT	ETP Inlet	ETP Outlet
1	pH	--	9.44	7.89
2	Temperature	°C	31	32
3	Colour (pt. co scale)	co pt	45	40
4	Total Suspended solids (TSS)	mg/L	32	18
5	Biochemical Oxygen Demand,BOD3 27 °C	mg/L	11	7
6	Chemical Oxygen Demand (COD)	mg/L	40	10
7	Oil & Grease (O & G)	mg/L	BDL*	BDL*
8	Phenolic compound (as C6H5OH)	mg/L	BDL*	BDL*
9	Sulphide (as S)	mg/L	BDL*	BDL*
10	Ammonical Nitrogen (as N)	mg/L	1.8	BDL*
11	Cyanide (as CN)	mg/L	BDL*	BDL*
12	Flourides (as F)	mg/L	BDL*	BDL*
13	Hexavalent Chromium (as Cr+6)	mg/L	BDL*	BDL*
14	Total Chromium (as Cr)	mg/L	BDL*	BDL*
15	Copper (as Cu)	mg/L	BDL*	BDL*
16	Nickel (as Ni)	mg/L	BDL*	BDL*
17	Zinc (as Zn)	mg/L	BDL*	BDL*
18	Lead (as Pb)	mg/L	BDL*	BDL*

2ND MONITORING VISIT : 05/01/2022				
SR. NO	PARAMETERS	UNIT	HRSG Inlet	HRSG Outlet
1	Total Suspended solids (TSS)	mg/L	54	10
2	Oil & Grease (O & G)	mg/L	1.8	BDL*
3	Copper (as Cu)	mg/L	BDL*	BDL*
4	Iron (as Fe)	mg/L	BDL*	BDL*

2ND MONITORING VISIT : 05/01/2022				
SR. NO	PARAMETERS	UNIT	Cooling Tower Inlet	Cooling Tower Outlet
1	Total Residual Chlorine	mg/L	BDL*	BDL*
2	Zinc (as Zn)	mg/L	BDL*	BDL*
3	Total Chromium (as Cr)	mg/L	BDL*	BDL*
4	Phosphate (as P)	mg/L	BDL*	BDL*



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3rd MONITORING VISIT :15/03/2022				
SR. NO	PARAMETERS	UNIT	ETP Inlet	ETP Outlet
1	pH	--	6.88	8.56
2	Temperature	°C	39	39
3	Colour (pt. co scale)	co pt	65	58
4	Total Suspended solids (TSS)	mg/L	26	12
5	Biochemical Oxygen Demand,BOD3 27 °C	mg/L	12.5	8.6
6	Chemical Oxygen Demand (COD)	mg/L	50	30
7	Oil & Grease (O & G)	mg/L	BDL*	BDL*
8	Phenolic compound (as C6H5OH)	mg/L	BDL*	BDL*
9	Sulphide (as S)	mg/L	BDL*	BDL*
10	Ammonical Nitrogen (as N)	mg/L	2.86	BDL*
11	Cyanide (as CN)	mg/L	BDL*	BDL*
12	Flourides (as F)	mg/L	BDL*	BDL*
13	Hexavalent Chromium (as Cr+6)	mg/L	BDL*	BDL*
14	Total Chromium (as Cr)	mg/L	BDL*	BDL*
15	Copper (as Cu)	mg/L	BDL*	BDL*
16	Nickel (as Ni)	mg/L	BDL*	BDL*
17	Zinc (as Zn)	mg/L	BDL*	BDL*
18	Lead (as Pb)	mg/L	BDL*	BDL*

3rd MONITORING VISIT :15/03/2022				
SR. NO	PARAMETERS	UNIT	HRSG Inlet	HRSG Outlet
1	Total Suspended solids (TSS)	mg/L	22	16
2	Oil & Grease (O & G)	mg/L	1.8	BDL*
3	Copper (as Cu)	mg/L	BDL*	BDL*
4	Iron (as Fe)	mg/L	1.89	BDL*

3rd MONITORING VISIT :15/03/2022				
SR. NO	PARAMETERS	UNIT	Cooling Tower Inlet	Cooling Tower Outlet
1	Total Residual Chlorine	mg/L	08	BDL*
2	Zinc (as Zn)	mg/L	BDL*	BDL*
3	Total Chromium (as Cr)	mg/L	BDL*	BDL*
4	Phosphate (as P)	mg/L	0.03	BDL*

SDCET KIM SURAT ENVIRONMENT AUDIT LABORATORY

AM/NS INDIA

AMNSI/GPCB-ES/ 09 - 22
22nd September, 2022

Member Secretary
Gujarat Pollution Control Board
Sector 10-A, Paryavaran Bhavan,
Gandhinagar 382 043

Sub: ArcelorMittal Nippon Steel India Limited (Plate Mill Division) (GPCB login ID: 22968) – Environmental Statement (Form V) for the period 2021-2022.

Ref: CC&A Order No. AWH-107721 issued to ArcelorMittal Nippon Steel India Limited (Plate Mill Division) (GPCB ID: 22968).

Dear Sir,

This has reference to the captioned subject and cited reference above, we are submitting annual Environmental Statement (Form V) for the period April'2021 – March'2022.

Thanking You.

Yours faithfully

For, **ArcelorMittal Nippon Steel India Limited (Plate Mill Division)**

R.S Sankarasubramanian
Head – Environment

CC: Regional Officer (RO), Gujarat Pollution Control Board (GPCB), Surat.

26/09/2022
Gujarat Pollution Control Board
Sector No. 10 A,
Gandhinagar 382 010

ArcelorMittal Nippon Steel India Limited
Registered Office: 27th km, Surat-Hazira Road,
Hazira, Surat 394 270 Gujarat, India
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A joint venture between ArcelorMittal and Nippon Steel Corporation

ArcelorMittal NIPPON STEEL

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Environmental Statement Form V

ArcelorMittal Nippon Steel India Limited (Plate Mill Division) – ID 22968

Environmental Statement for the financial year ending the 31st March 2022

PART - A

i.	Name and address of the owner / occupier of the industry, operation or process		Sh. Dilip Oommen CEO & Occupier ArcelorMittal Nippon Steel India Limited 27th Km, Surat - Hazira Road, Dist. Surat, Hazira-394270	
ii.	Industry category		Integrated Iron & Steel Plant	
	Primary (SIC code)		3300	
	Secondary (SIC Code)		3310	
	Products / By – products capacity			
	S.No.	Product/ By Product	Consented Capacity (MT/Month)	Actual Production (MT/ Month)
	1	Hot Rolled Plates	1,25,000	67,470
	2	Mill Scale	3,000	682
	Year of Establishment			
	Plate Mill		Apr'10	
v	Date of last Environmental Statement submitted		17th September 2021	

Part - B

Water and Raw Material Consumption

	Water Consumption	**M^3/Day**
i.	Process	-
	Cooling (Inclusive of Scrubbing)	2320
	Domestic	10
	Total	2330

ARCELORMITTAL NIPPON STEEL INDIA LTD. AMNS INDIA * HAZIRA *

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Water consumption per unit of products

Name of the products	During the previous financial year	During the current financial year
Hot Rolled Plates	1.09 M^3/MT	1.05 M^3/MT

Raw Material Consumption

S. No.	Name of the Raw Material	Consumption of Raw Material/unit of Output	
		During the previous financial year	During the current financial year
	Plate Mill		
1	Slabs	0.98 MT/MT	1.01 MT/MT

Part - C

Pollution Discharged to Environment

Pollutants	Quantity of Pollutants Discharged (Mass/day)	Concentration of pollutants discharged (Mass/volume)	Percentage variation from prescribed standards with reasons*
a. Water			
Plate Mill			
Suspended Solids	4.41 kg/d	42 mg/l	- 58 %
COD	5.50 kg/d	52.42 mg/l	- 79 %
BOD	1.28 kg/d	12.22 mg/l	- 59 %
O & G	0.54 kg/d	5.17 mg/l	- 48 %
b. Air			
Plate Mill			
RHF – 1 & 2			
Particulate Matter	139.12 kg/d	19.5 mg/Nm3	- 87 %
SO2	98.05 kg/d	5.26 ppm	- 95 %
NOx	358.14 kg/d	26.34 ppm	- 47 %

ARCELORMITTAL NIPPON STEEL INDIA LTD. * HAZIRA *

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Normalizing Furnace			
Particulate Matter	35.83 kg/d	8.94 mg/Nm3	- 94 %
SO2	59.43 kg/d	5.66 ppm	- 94 %
NOx	184.67 kg/d	24.13 ppm	- 52 %
Austinizing Furnace			
Particulate Matter	44 kg/d	12.18 mg/Nm3	- 92 %
SO2	94.4 kg/d	4.16 ppm	- 96 %
NOx	179.5 kg/d	26.02 ppm	- 48 %
Tempering Furnace			
Particulate Matter	26.82 kg/d	18.33 mg/Nm3	- 88 %
SO2	18.55 kg/d	4.84 ppm	- 95 %
NOx	66.82 kg/d	23.92 ppm	- 52 %
Cold leveler De – Dusting system			
Particulate Matter	SD	SD	SD

PART- D
Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Wastes		**Total Quantity**	
Used Oil		During the previous financial year	During the current financial year
(a)	From process & Pollution Control Facilities in KL	0	29.4
Empty Container / Barrels / Liners			
(a)	From process & Pollution Control Facilities (Nos)	0	2042
Kindly indicate the storage details and method of transport			
▪ The Used oil is generated from various rotating equipment like compressors, air blowers, thickener drive mechanism, dosing pumps, gear boxes, diesel engines, D.G. sets & Effluent Treatment Plant, etc. Used Oil is collected in drums and stored in dedicated hazardous waste storage area. It is sold to registered refiners for refining and reusing.			
▪ Discarded Containers / Barrels are generated from process plant & stored in a dedicated storage area & sold to authorized recyclers.			

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PART – E
Solid Waste

	Total Quantity	
	During the previous financial year	During the current financial year
From pollution control facilities--	NIL	NIL
Sold	Wooden scrap: 263.74 MT	Wooden scrap: 310 MT

PART - F

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes

Hazardous wastes: -

▪ The Used oil is generated from various rotating equipment like compressors, air blowers, thickener drive mechanism, dosing pumps, gear boxes, diesel engines, D.G. sets & Effluent Treatment Plant, etc. ▪ Used Oil is collected in drums and stored in dedicated hazardous waste storage area. It is sold to registered refiners for refining and reusing.
▪ Discarded Containers / Barrels are generated from process plant & stored in a dedicated storage area & sold to authorized recyclers.

PART – G

Impact of pollution control measures on conservation of natural resources and consequently on the cost of production

- Selection of plant technology based on NG/ NGL/ Naphtha/ Corex gas.

PART – H

Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution - Nil.

PART - I
Miscellaneous

Any other particulars for improving the quality of the environment

- Total Tree Plantation in 2021-22 is 110 Nos.

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AMNS / ENV / COMP- MOEF / 11 - 22
28th November, 2022

Deputy Director General of Forests
Ministry of Environment, Forest & Climate Change
Integrated Regional Office,
"Aranya Bhawan" Near CH-3 Circle,
Sector-10A, Gandhinagar – 382010

Sub: ArcelorMittal Nippon Steel India Limited (AMNS), Hazira, Gujarat - Half Yearly Environment Clearance (EC) compliance report for the period Apr'22 - Sep'22.

Ref: 1) EC Vide No. J -11011/44/2014-IA II (I) dated 02.03.2022
2) EC Vide No. J -11011/381/2014-IA II (I) dated 09.03.2016
3) EC Vide No. 11-65/2005-IA-III dated 18.09.2006
4) EC Vide No: 11-1/2012-IA.III dated 11.01.2013, amended on 03.05.2013.

Dear Sir,

This is with reference to the above referred subject, we are submitting the half yearly compliance status report for the following Environmental Clearances for the period of Apr'22 - Sep'22.

A. Env. Clearance granted for Modification Project vide EC letter dated : 02.03.2022
B. Env. Clearance granted for Re-configuration Project vide EC letter dated : 09.03.2016
C. Env & CRZ Clearance granted for Captive jetty expansion project vide EC letter dated : 18.09.2006
D. CRZ clearance granted for 220KV transmission line project vide letter dated : 03.05.2013

This is for your kind information and records please.

Thanking you,

Yours faithfully,

For, **ArcelorMittal Nippon Steel India Limited (AM/NS India)**

R.S. Sankarasubramanian
Head – Environment

Copy to : 1) Central Pollution Control Board (CPCB), Western Regional office, Vadodara
2) Regional Officer, GPCB, Surat.

ArcelorMittal Nippon Steel India Limited
Registered Office: 27th km, Surat-Hazira Road,
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ArcelorMittal Nippon Steel India Limited, Hazira

Annexure – A

Compliance Status of Environment Clearance for Modification Project - EC No: EC22A008GJ153411 File No. J-11011/44/2004-IA II (I) dated 02/03/2022.

Sr. No.	Conditions	Status
A.	**Specific conditions**	
i.	The additional water requirement for the proposed modernization i.e., 7489 KLD water requirement for modification project shall be drawn from Tapi River.	Company has permission for Water withdrawal of 45 MGD from Govt. of Gujarat and it will take care of additional water requirement of 7489 KLD.
ii.	Green Belt shall be developed in 222.05 ha with tree density of 2500 trees per ha. (or 1000 trees per acer) all along the periphery of the project site by 31st December, 2022.	From April'22 to till date, additional 43,000 trees (18 Ha) have been planted and with this now we are having greenbelt area around 189 Ha. Tree plantation for remaining areas under progress.
iii.	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.	Performance test for the Pollution Control Systems carried out in Dec'21 and report submitted to MoEF&CC thorough our upstream expansion EIA report in Aug'22. For 2022-2023, Annual performance test through third party MoEF&CC approved agency is under progress and report will be submitted to MoEF&CC in the subsequent compliance report.
iv	Sinter cooler heat recovery system for the existing Sinter plant shall be implemented within 3 years from the date of issue of Environment clearance.	Sinter cooler heat recovery system for the existing Sinter plant will be installed by 2025.
v.	Dry Gas cleaning system shall be implemented for the existing Blast furnace within 5 years from the date of issue of Environment clearance.	Dry Gas cleaning system will be implemented for the existing Blast furnace will be installed by 2027.
vi	The Oil scum and oily waste from CRM shall be sent to registered recyclers for oil recovery and incineration.	Oily scum and Oily waste are being disposed to registered recyclers for oil recovery & incineration and the same will be continued.
vii	CEMS shall be connected to plant control room for process control to keep emissions under control. Interlocking of CEMS shall be in conformity with CPCB directions	CEMS has been connected to plant control rooms. For Interlocking of CEMS, awaiting guidelines from CPCB.
viii.	Hot Rolled Coil (HRC) production shall be done through hot charging minimum 65 % and for billets hot charging shall be minimum 85%. Remaining shall be done through reheat furnace operating on natural gas / Corex gas.	Hot Rolled Coil (HRC) production is being done through hot charging of minimum 65 %. Remaining are being done through reheat furnace operating on natural gas / Corex gas.
ix	Acid Recovery Plant (ARP) and acid fume scrubber in stack emission shall be less than 10 mg / Nm^3 HCl.	Acid Recovery Plant (ARP) and acid fume scrubber norms are complying the norms. Stack emission monitoring results are enclosed herewith as Annexure 1.
x.	The Oil scum and oily waste from CRM shall be sent to Authorized recycler.	Oily Scum and Oily waste from CRM are being disposed to registered recyclers for oil recovery & incineration and the same will be continued.
xi.	CDQ shall be installed along with a modified wet quenching tower as a standby.	CDQ will be commissioned along with the coke oven battery.
xii.	In SMS plant fume extraction system for all process equipment like converters, LRF shall be independent. Common Fume Extraction System (FES) shall be provided only for roof top emissions.	In SMS plant, independent Fume Extraction System is provided for furnaces and common Fume Extraction System is provided for Rooftop.

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xiii.	RO reject from BOD plant of Coke Oven shall not be used for slag quenching. Multi Effect Evaporator (MEE) shall be installed to handle RO reject and the MEE sludge shall be sent to TSDF.	For the complex – except Coke oven area, RO reject will be utilized for slag quenching proposed as part of ZLD. However, for Coke oven, separate RO unit with dedicated MEE will be arranged.
xiv.	PM emission from all stacks (existing and new) shall be less 30 mg / Nm3.	Existing & Proposed stacks will comply the norms of 30 mg / Nm3.
xv.	100 % solid waste generated shall be recycled/ reused/sold. No dumping is permitted.	Action plan is in place for 100 % solid waste utilization through recycling / reused / sold. Currently, we are utilizing / recycling / selling around 85% and already supplied our slag to NHAI & in discussion with Railways to use our slag for road construction, Ballast purpose, etc. Solid waste generation & utilization plan is enclosed as Annexure 2.
xvi.	A wind barrier of 400 m shall be provided near Sikotar Mata Temple in Hazira Village.	Complied. Company installed the wind barrier with costing around Rs. 5 cr and 400 mt length. 
xvii	Wind barrier at raw material handling yard shall be provided and loading and unloading station shall be closed.	Wind barriers are available for the main storage yards.
xviii.	Zero Liquid Discharge (ZLD) scheme for the entire complex shall be implemented by March,2023.	Zero Liquid Discharge (ZLD) project for the entire complex will be commissioned by March'2023.
xix	All plant roads shall be paved and industrial vacuum cleaners shall be provided to clean the roads regularly.	All major plant roads are paved and regular industrial vacuum cleaners are provided for cleaning the roads regularly. 
xx.	All stock piles shall be constructed over impervious soil and garland drains / storm water drains with catch pits to trap run off material shall be constructed.	Garland drains already provided.
xxi.	PP shall carryout extensive rainwater harvesting and recharge as per the action plan submitted in the EIA report.	Company is practicing the Rainwater harvesting regularly. In CY 2022, rain water harvested – 5,24,482 m3.

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xxii.	Sulphur recovery and ammonia cracker shall be installed in Coke Oven Plant.	Sulphur recovery and ammonia cracker from coke oven gas is considered in the design and will be commissioned along with the coke oven by-product plant.
xxiii.	The recommendations of the approved Site - Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six - monthly compliance report to the concerned Regional Office of the MoEF & CC.	Wildlife Management plan is already approved by PCCF (Principal Chief Conservator of Forest), Gandhinagar. Management plan will be implemented as per timeline and Implementation report will be submitted accordingly.
B.	**General condition**	
I.	**Statutory compliance:**	
i.	The Environment Clearance (EC) granted to the project / activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount / construe to approvals / consent / permissions etc., required to be obtained or standards / conditions to be followed under any other Acts / Rules / Subordinate legislations, etc., as may be applicable to the project.	Noted
II.	**Air quality monitoring and preservation**	
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Continuous Emission Monitoring System at process stacks already installed and 04 CAAQMS stations installed in the plant premises. Calibration of the analyzers is being done through lab recognized under Environment (Protection) Act, 1986 and NABL accredited laboratory. Additional CEMS & 2 CAAQMS will be installed and will be connected with SPCB & CPCB servers.
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Fugitive emission monitoring is being carried out in 8 locations every month through Third party NABL accredited laboratory. Third party Fugitive Monitoring results for Apr'22 – Sep'22 submitted as Annexure – 3.
iii.	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.	For the existing stacks, sampling facility already available as per CPCB guidelines for Manual monitoring of emissions. For the proposed stacks, sampling facility will be provided as per CPCB guidelines.
iv.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	For the Existing plant, APC system already implemented. For the proposed units, APC systems will be provided for all the dust generating points.
v.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Leakage detection & mechanized bag cleaning facilities already available for better maintenance of bags.
vi.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Mobile vacuum cleaners are already provided for cleaning the plant roads. Shop floors & roofs are being cleaned regularly. 10 nos. of road sweeping machines operated for effective road cleaning.

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vii.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/agglomeration.	Recycling & reuse measures already implemented. Iron ore fines is being utilized in Sinter plant. FES Micropelletization implemented for Iron Fines (FES dust) & Coal Briquetting implemented for Coal fines.
viii.	The project proponent use leak proof trucks / dumpers carrying coal and other raw materials and cover them with tarpaulin.	Using Leak proof trucks / dumpers for carrying coal and other raw materials and it is covered. 
ix	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).	Spillage collection facilities of coal and coke is considered in the design for the implementation and recycling through conveyor.
x.	Land - based APC system shall be installed to control coke pushing emissions.	Land - based APC system considered in the design for the implementation.
xi.	Monitor CO, HC and 02 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.	Monitoring system is considered in the design for implementation.
xii.	Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.	Vapor absorption system for cooling of coke oven gas is considered in design for implementation.
xiii.	Wind shelter fence and chemical spraying shall be provided on the raw material stockpiles.	Wind shelter fence already provided for existing yards.
xiv.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Required ventilation system already provided in the tunnels, motor houses, Oil cellars.
III	**Water quality monitoring and preservation**	
i.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Effluent Quality Monitoring Systems (EQMS) already provided for 03 effluent outlets and connected with CPCB server. Calibration of the analyzers are being done through NABL accredited third party laboratory.
ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post - monsoon) at sufficient numbers of piezometers / sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground water quality is monitoring through Third party NABL accredited laboratories every six month. In addition, Ground water quality monitoring stations will be increased to include adjacent areas from 2023.

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iii.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	Sewage Treatment Plant is already installed for treatment of domestic wastewater. Further, Modular STP units will be installed in the expanded area.
iv.	Garland drains and collection pits shall be provided for each stock pile to arrest the run off in the event of heavy rains and to check the water pollution due to surface run off.	Garland drains already implemented.
v.	Tyre washing facilities shall be provided at the entrance of the plant gates.	Tyre washing facilities will be provided at the entrance of the plant gates.
vi.	Water meters shall be provided at the inlet to all unit processes in the steel plants.	Water meters already provided at the inlet of unit process. For the proposed plants, inlet water meters will be installed.
IV.	**Noise monitoring and prevention**	
i.	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six -monthly compliance report.	Ambient noise monitoring is being carried out through Third party NABL accredited laboratory every month and report is being submitted to Regional Office every six month. Third party Noise Monitoring Results for Apr'22 – Sep'22 submitted as Annexure – 4. Same Practice will be continued for the proposed plants.
V.	**Energy Conservation measures**	
i.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.	Covered torpedo ladle has been considered in Expansion.
ii.	Restrict Gas flaring to < 1 %.	Flaring is minimum due to common gas network, mixture, and connectivity with power plant.
iii.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;	In this proposed modification project, we proposed solar rooftop facility for 16.75 MW and will be commissioned by 2023.
iv	Provide LED lights in their offices and residential areas.	100% completed for existing offices and residential areas. For expansion, LED illumination system has been considered for all the areas.
v.	Ensure installation of regenerative / recuperative type burners on all reheating furnaces.	In existing plant, efficient recuperators have been installed. For expansion, efficient burners will be installed.
VI.	**Waste management**	
i.	Oil Collection pits shall be provided in oil cellars to collect and reuse / recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.	Oil Collection pits are available to collect and reuse / recycle spilled oil & Oil collection trays also available at all locations. 
ii.	Kitchen waste shall be composted or converted to biogas for further use.	Bio gas plant already constructed for converting kitchen waste into bio gas.
VII.	**Green Belt**	
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the Programme for reduction of the same including carbon sequestration by trees.	GHG Emissions inventory already prepared for the plant and submitted to ministry through expansion EIA report in Aug'2022.

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VIII	**Public hearing and Human health issues**	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Emergency preparedness plan cum Disaster Management plan already prepared and submitted to MoEF&CC / GPCB / CPCB through EC Compliance report (Oct'20 to Mar'21) on 31-05-2021.
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.	For the Existing plant, Heat stress analysis already conducted for high temperature work zone and PPEs are provided as per the norms. Same practice will be continued for the proposed plants.
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Health Surveillance of workers are done on regular basis and records are maintained. Same practice will be continued for the proposed plants.
IX.	**Environment Management**	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65 / 2017 - IA.III dated 30/09/2020.	Three years action plan already prepared and submitted to MoEF&CC as per OM dated 30/09/2020 through EIA report in Feb'2022. Status of action plan is submitted as Annexure 5.
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/ violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholder's / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six - monthly report.	Company having a detailed Incident / deviation investigation cum reporting procedure. As per this standard procedure any deviation in Environmental limits, any spillage of chemicals / waste, any violation of legal conditions are being reported to the management immediately and detailed investigation is to be conducted for the root cause and the remedial actions. Monthly compliance certificate is being submitted to Board of Directors from the site.
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Separate Environmental Cell already available under control of Senior Executive.
X.	**Miscellaneous**	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Complied the condition. EC received on 02/03/2022 and Company has made an advertisement for grant of EC in two newspaper Indian Express (English) & Gujarat Mitra (vernacular language) on 08/03/2022. Company has already uploaded the EC on the company website. Details of EC advertisement and EC upload on company website enclosed herewith as Annexure 6.
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Copies of the Environmental clearance already submitted to Gujarat Pollution control Board, Surat Division & HO Gandhinagar. EC clearance also submitted to Hazira Gram Panchayat and Hazira Notified Industrial area office. Details of Environment Clearance submitted to government, local bodies and relevant authorities, enclosed herewith as Annexure 6.

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iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half - yearly basis.	EC conditions compliance reports already uploaded on the website of the company. Details enclosed herewith as Annexure 6.
iv.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Ambient and Stack emission are being monitored regularly and results are shown on the display board installed outside the main gate of the company.
v.	The project proponent shall submit six - monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Regularly submitting the six monthly report on the status of the compliance of the stipulated environmental conditions to MoEF&CC.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Environment Statement Form-V is regularly submitted to GPCB office and MoEF&CC. Annual Statement for 2021-22 enclosed herewith as Annexure 7.
vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Financial closure is not applicable for this project as funding is arranged internally and project activities has commenced from 15-03-2022.
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Company will comply.
ix.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF & CC).	Company will comply.
x.	Concealing factual data or submission of false / fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
xiii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Noted and Full support will be extended to the RO office.
xiv.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
7.	This issues with the approval of the Competent Authority.	Noted.

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Annexure - B

Environment Clearance (EC) J-11011/381/2014-IA II (I) dated 09-03-2016 covers all the production capacities of the following ECs.

Environment Clearance (EC) Details

Sr. No.	EC No.	Date	Plant	Capacity	Implementation Status
1	J – 11011/4/92-IA-II(I)	23/07/1992	Sponge Iron & Hot Rolled Coil (Integrated Steel Plant)	(Not Mentioned)	In operation
2	J-11011/45/2004 IA –II(I)	07/11/2005	Hot Briquetted Iron (HBI)	3,33,333 MTPM	In operation
			Hot Rolled Coil (HRC)	2,50,000 MTPM	In operation
			Hot Metal	61,250 MTPM	In operation
3	11-65/2005-IA-III	18/09/2006	Extension of existing Jetty to a length of 1190 Mtrs & 35 ha reclaimed land		In operation
4	J-13011/7/2006 IA.II (T)	21/09/2006	525 MW Gas based Captive Power Plant		In operation
5	J-11011/74-III/2006 – IAII(I)	29/05/2008	Hot Briquetted Iron (HBI)	3,33,333 MTPM	In operation
			Hot Rolled Coil (HRC)	3,75,000 MTPM	In operation
			BF Grade Coke	50,000 MTPM	In operation
			Electricity Generation (WHRB)	1.15(48 MW) MU/Day (MW)	Not Established
			Oxygen (Gas)	371,12,000 Nm3/M	In operation
			Oxygen (Liquid)	21,24,000 Nm3/M	In operation
			Nitrogen	3,45,20,000 Nm3/M	In operation
			Argon	10,58,400 Nm3/M	In operation
			Electricity Generation	31 MW	In operation
			Electricity Generation (New CPP)	525 MW	In operation
6	J-11011/327-I/2006-IA.II (I)	29/05/2008	Hot Briquetted Iron (HBI)	1.98 MMTPA	In operation
			Iron Ore Fines	2,52,840 TPA	In operation
7	J-11011/74-II/2006-IA.II(I)	29/05/2008	Hot Rolled Plate	15,00,000 TPA	In operation
8	J-13011/90/2006-IA.II(T)	10/08/2009	25 MW Waste Heat Recovery Based Power Plant		In operation
9	J-11011/714-A/2008-IAII(I)	05/07/2010	Pellet Plant		
			Pellets	40,00,000 TPA	Not Established
			HBI/DRI Plant (1 Nos.)		
			HBI / DRI	18,50,000 TPA	In operation
			Iron Ore Fines	2,68,000 TPA	In operation
			Corex Plant (2 Nos)		
			Hot Metal	17,00,000 TPA	In operation
			Granulated Slag	5,10,000 TPA	In operation
			Granulated Pig Iron	68,292 TPA	In operation
			Blast Furnace		
			Hot Metal	20,40,000 TPA	In operation
			Granulated Slag	6,12,000 TPA	In operation
			Steel Melt Shop(4 EAF & 4 LF)		
			Liquid Steel	50,00,000 TPA	In operation
			Slag	10,00,000 TPA	In operation
			Iron Fines	62,400 TPA	In operation
			Caster Shop (4 Slab & 2 Billet Casters)		
			Slabs from slab caster	49,00,000 TPA	In operation
			Billets from Billet caster	23,70000 TPA	Not Established
			Addition of CSP Hot Rolling Mill with Long Product Mill		

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			Rebar	15,99,996 TPA	Not Established
			Wire Road	6,99,996 TPA	Not Established
			HRC	35,00,000 TPA	In operation
			Mill Scale	1,20,000 TPA	In operation
			Lime Plant (3 Nos)		
			Lime / Dolime	4,50,000 TPA	In operation
			Lime Stone / Dolomite chips	1,10,000 TPA	In operation
			Lime Fines	30,000 TPA	In operation
			Off Grade Lime Dolime	10,000 TPA	In operation
			Oxygen Plant (4 Nos)		
			Oxygen Gaseous Nm3/Hr	3,09,000 TPA	In operation
			Nitrogen Nm3/Hr	72,000 TPA	In operation
			Argon Nm3 / Hr	2,000 TPA	In operation
10	J-11011/ 313/2009 – IA. II (I)	28/07/2010	Coke Oven – 1.2 MMTPA		Not established
11	11-1/2012 – IA.III	11/01/2013	220 KV M/C Transmission Tower Line		In operation

MMTPA – Million Metric Tonnes Per Annum, MTPM – Metric Tonnes Per Month, TPA – Tonnes Per Annum

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Status of Reconfiguration Projects granted as per Environment Clearance dated 09.03.2016

S.No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Capacity	
1	HBI Plant (DRI Mod I to VI) (in MTPA)	Mod I-IV: 4.0 Mod:V - 1.98 Mod VI: 1.85	7.83 (- 4.0* =3.83)	Mod I-IV: 4.0 Mod:V - 1.98 Mod VI: 1.85	7.83		-	7.83	* Earlier planning was to remove HBI Modules (1 to 4) totalling 4 MTPA and replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity. CTO has been sanctioned for 7.83 MTPA.
2	Blast Furnace (BF) (in MTPA)	1 x 2.04 (2200 m3) 1 x 3.0	5.04	1 x 2.04	2.04*	-	(-3.0#)	2.04	# 3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT, now dropped.
3	Sinter Plant	1x 1.48 (1 x 120 m2) 2 x 3.5 (~ 325 m2 each)	8.48*	1 x 1.48	1.48	-	(-7.0#)	1.48	# 7.0 MTPA plant couldn't be implemented due to fund constraints and legal cases at the NCLT.
4	Coke Oven (Recovery Type)	1 x 1.20 1 x 1.35	2.55	2 x 59 Ovens	1.35#	-	1.20*	-	# Under implementation *2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed.
5	Air Separation Plant (Nm3/Hr)	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen) 1 X 2200 TPD	424,744	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen)	360,544	1 X 2200 TPD	64,200*	360,544	*64200 Nm3/hr plant will be established as per 2016 EC

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S.No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Capacity	
6	SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	4.6*	4 x 150 MT Heat size	4.6*		-	4.6	*Earlier planning was to remove 4.6 MTPA EAF -4 nos. and replacing with BOF-3 nos. in its place but that could not be implemented due to fund constraints and legal cases at the NCLT.e Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original capacity. CTO has been sanctioned for 4.6 MTPA.
7	SMS-2	4 x 200 MT Heat size	5.0	4 x 200 MT Heat size	5.0		-	5.0	
	Total SMS		9.6		9.6		-	9.6	
9	Corex Plant	2 x 0.85	1.7	2 x 0.85	1.7		-	1.7	
10	Lime Plant (Lime/Dolime	1 x 0.45 (4 x 300 TPD) 1 x 0.48 (3 x 500 TPD)	0.93	1 x 0.45 1 x 0.48	0.93	1 x 0.27* (1 x 200 + 1x 500 TPD)	0.27	0.93	*0.27 MTPA approved under modification Project.
11	Plate Mill	1 x 1.5	1.5	1 x 1.5	1.5		-	1.5	
12	CSP and HRC	1 x 3.5	3.5*	1 x 3.5 1 x 4.5#	8.0*		-	8.0	* 3.5 MTPA approved vide 05.07.2010 EC # 4.5 MTPA Approved vide 29-05-2008 EC Total 8.0 implemented, but inadvertently mentioned 3.5 MTPA only in 2016 EC
13	CRM	1 x 1.5	1.5	1 x 1.5 1 x 0.54*	2.04*	1 x 2.2 1 x 1.0	3.2#	2.04	* CTO taken for additional 0.54 MTPA from GPCB. #3.2 MTPA Approved in Modification Project.
14	Pipe mill:								
	H Saw Pipes (in MTPA)	1 x 0.15	0.15	1 x 0.15 1 x 0.15*	0.30*		0	0.3	0.15 MTPA as per 2016 EC *CTO taken for additional 0.15 MTPA from GPCB. (0.15+0.15=0.30).
	L Saw Pipes (in MTPA)	1 x 0.33	0.33	1 x 0.33	0.33		0	0.33	
15	CPP (in MW)	1 X 475 MW 1 X 31 MW	604	1 X 475 MW 1 X 31 MW	556	1 x 48 MW	(-48#)	556	#48 MW Power plant dropped

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S.No	Plant / Facility	As per EC dated :09.03.2016 (A=A1+A2)							Remarks
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO	
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Capacity	
		1 X 40 MW 1 X 10 MW 1 X 48 MW		1 X 40 MW 1 X 10 MW					
16	Waste Heat Recovery based Power Plant (in MW)	1 x 25 MW 1 x 20 MW	45	1 X 25 MW	25	1 X 20 MW	20*	25	*20 MW to be implemented
17	Jetty (length in m)	456 m+ 734 m	1190 m & 35 ha reclaimed land	456 m + 734 m	1190 m & 35 ha reclaimed land	-	-	734 m*	* 734- and 456-meters capacity was sanctioned in 2006 EC. This was implemented although inadvertently mentioned 734 m only in 2016 EC and CTO also mentioned the same 734m length.

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Compliance Status of Environment Clearance for Replacement of existing Hot Briquetted Iron(HBI)/ Direct Reduced Iron(DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter plant, Coke oven plant and Existing Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility in the existing integrated steel plant of ArcelorMittal Nippon Steel India Limited (Formerly M/s Essar Steel India Limited) - EC No: F.No.J-11011/381/2014-IA II (I) dated 9th March, 2016.

CO No.	POINTS TO BE COMPLIED	COMPLIANCE STATUS
I.	The Project proponent shall install 24x7 air monitoring devices to monitor air emission, as provided by the CPCB and shall submit report to ministry and its regional office.	Installed Four nos. of Continuous (24*7) Ambient Air Quality Monitoring Stations (CAAQMS) and real-time date being connected to CPCB server. Monthly Manual monitoring is being done for Ambient air quality by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC and analysis results are being submitted to GPCB & MoEF&CC regularly. Third party Ambient monitoring results for Apr'22 – Sep'22 submitted as Annexure – 8.
II.	Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm3 and installing energy efficient technology.	Continuous stack monitoring facilities have been provided for stacks which are having effective air pollution control devices such as Dedusting systems, Electrostatic Precipitator (ESP), Bag House & Bag Filters, Hydro cyclone, Venturi Scrubber. ESP Photograph (Sinter Plant):  Bag House Photograph: (Bag Filters installed at SMP1, SMP2, Lime Plant 1, Lime Plant 2, Corex, Blast Furnace, HBI, Plate Mill, Pipe Mill)  Monthly manual monitoring is being done for all Stacks by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC and analysis reports are being submitted to GPCB & MoEF&CC regularly. Third party Stack monitoring results for Apr'22 – Sep'22 submitted as Annexure – 1.

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<table>
<tr><td>III.</td><td>Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development.</td><td>Total 5,24,482 m3 of rain water harvested for the period Apr’22 – Sep’22.

We are using air cooled condensers and closed circuit cooling system.

Using treated effluent water for dust suppression and green belt development.</td></tr>
<tr><td>IV.</td><td>All the coal fines and char shall be utilized within the plant and no char shall be used for briquette making or disposed off anywhere else. Scrap shall be used in Steel melting shop (SMS) and SMS slag and kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed of in environment-friendly manner.</td><td>Coal fines is being utilized as a raw material in Blast Furnace & Power Plant.

Scrap is being used in Steel melting shop (SMS) and SMS slag and kiln accretions has been utilized properly in Environment friendly manner.

Other Materials Utilization Table:
<table><tr><td>Materials</td><td>Utilization (MT)
Apr’22 – Sep’22</td></tr><tr><td>Coal Fines</td><td>450991</td></tr><tr><td>Scrap</td><td>210843</td></tr><tr><td>SMS Slag</td><td>791474</td></tr></table></td></tr>
<tr><td>V.</td><td>All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3 tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coal mines shall be created within the Unit.</td><td>All the internal plant roads have been Black topped / Concrete & cleaning of the roads are being done regularly through 10 nos. of mechanical road sweepers.

 

  </td></tr>
</table>

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Regular Road repairing also being carried out.

Facilities available for Trucks & Trailers parking.

Avenue Plantation Photographs:

		
VI.	The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding iron and steel plant shall be followed.	Company is complying the standards of Ministry vide G.S.R. No. 277(E) dated 31st March, 2012. Kindly find attached the pointwise compliance status of G.S.R. No. 277(E) dated 31st March, 2012 as Annexure 9.
VII.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No 826 (E) dated 16th November, 2009 shall be followed.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No 826 (E) dated 16th November, 2009 is being followed. Third party Ambient Monitoring results for Apr'22 – Sep'22 submitted as Annexure – 8.
VIII.	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines/ Code of Practice issued by the CPCB shall be followed.	Monthly manual monitoring is being done for fugitive emissions by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC and reports are being submitted to GPCB & MoEF&CC. Guidelines/ Code of Practice issued by the CPCB is being followed. Third party Fugitive Monitoring results for Apr'22 – Sep'22 submitted as Annexure – 3.
IX.	Vehicular Pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.	Dust emission control measures are in place for controlling pollution happened due to Vehicle Movements & loading and unloading of the raw material and finished product. 1) Regular cleaning of dust on roads through mechanical sweepers – 10 Nos. 

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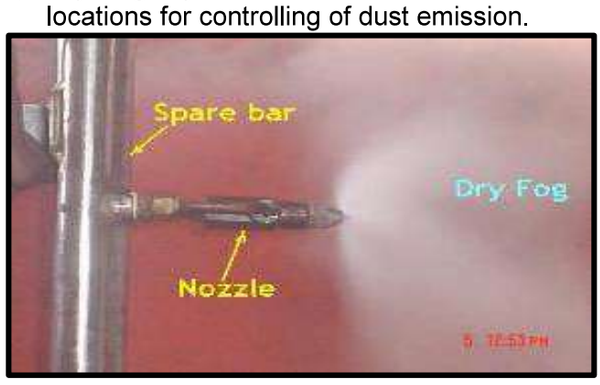
		Regular Road repairing also being carried out.  2) Water sprinkling systems are installed at various locations for controlling of dust emission.  3) Dry fog systems are installed at various locations for controlling of dust emission. 
X.	'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.	▪ As per Environment Clearances granted earlier, AMNS has permission to discharge water to the Tapi Estuary. ▪ As per latest Consent To Operate (CTO) granted by GPCB, Company has permission to discharge the water into Tapi Estuary for HRC Division, Plate Mill Division and Power Division. (Total Permission - 27572 M3/day).

		▪ In 2016 EC, Ministry has recommended Zero liquid discharge (ZLD) for the proposed expansion facilities, however due to Financial Implications and NCLT process, earlier management could not able to complete the ZLD. Now the new management i.e. AMNSI will implement the ZLD project as a part of modification project. We are setting up Reverse osmosis plant at cost of Rs. 100 Crores towards implementation of ZLD scheme and it will be established and commissioned by Mar'2023.
XI.	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.	Monthly effluent monitoring is being done by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC, and reports are being submitted to GPCB & MoEF&CC. Monthly Marine monitoring of Tapi Estuary is being done by Third Party NABL accredited laboratory to evaluate the marine status of the estuary due to effluent discharge and report of the same is sent to GPCB on monthly basis. Third party Effluent Reports for Apr'22 – Sep'22 submitted as Annexure – 10.
XII.	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.	All the Solid waste & Hazardous waste Handling, Storage, Utilization and disposal is being done in environment friendly manner as per statutory guidelines. Hazardous waste disposal is being done through GPCB approved TSDF Site / Recyclers. Copy of the Hazardous Waste disposal Form 4 for 2020-21 already submitted to MoEF&CC through previous EC Compliance report (Apr'21 to Sept'21) dated 30-11-2021.
XIII.	A time bound action plan shall be submitted to reduce solid waste generated due to the project related activities, its proper utilization and disposal.	All the Solid waste & Hazardous waste Handling, Storage, Utilization and disposal is being done in environment friendly manner as per statutory guidelines. Solid Waste Generation & Utilization plan is enclosed herewith as Annexure 2.
XIV.	Proper utilization of fly ash shall be ensured as per Fly ash Notification, 1999 and Subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufactures for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai	Not Applicable. AMNS India (Hazira) is not currently having Coal based power plant and no generation of Fly Ash, hence requested for deletion of this condition. Same was communicated to Ministry through modification projects EIA report.
XV.	A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Risk and Disaster Management Plan submitted to MoEF&CC / GPCB / CPCB through EC Compliance report (Oct'20 to Mar'21) dated 31-05-2021.
XVI.	Green belt shall be developed in at least 33% of the project area by planting native and broad	Green Belt is developed within the complex with native and broad leaved species.

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	leaved species in consultation with local DFO and local communities as per the CPCB guidelines.	Layout of the Greenbelt prepared for meeting the 33% target. Layout submitted to MoEF&CC through previous EC Compliance report (Oct'21 to Mar'22) dated 31-05-2022.     

		
XVII.	At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.	Project is not being implemented. However, we have undertaken community development activities for nearby villages. Till 2019, the unit was under NCLT process and no major CSR activities was carried out. Last year CSR Activity details is submitted as Annexure 11. Enterprise Social Commitment (ESC) action plan status as on 01.11.2022 is submitted as Annexure 12.
XVIII.	The proponent shall prepare a detailed CSR plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A Separate budget head shall be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the Compliance report to RO. The details of the CSR plan shall also uploaded on the company website and shall also be provided in the Annual Report of the company.	Project is not being implemented. However, we have undertaken community development activities for nearby villages. Till 2019, the unit was under NCLT process and no major CSR activities was carried out. Last year CSR Activity details is submitted as Annexure 11.

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XIX.	The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement / deviation / violation of environmental or forest norms/ conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/ violation environmental norms to the Board of Directors of the company and/ or stakeholders or shareholders.	Details already submitted in the earlier compliance report of Oct'20 to Mar'21 dated 31-05-2021. We are having a detailed Incident / deviation investigation cum reporting procedure. As per this standard procedure any deviation in Environmental limits, any spillage of chemicals / waste, any violation of legal conditions are being reported to the management immediately and detailed investigation is to be conducted for the root cause and the remedial actions. Monthly compliance certificate is being submitted to Board of Directors from the site. Copy of the Incident investigation process approach & sample monthly compliance report had submitted through previous EC Compliance report of Apr'21 to Sept'21 dated 30-11-2021.
XX.	The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	Presently the project is under conceptual stage, will be undertaken during project execution.
XXI.	The project proponent shall provide for LED lights in their offices and residential areas.	LED Lights are installed at Plant offices & Township. Now, we are installing LED lights only.
XXII.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The said reconfiguration project was not implemented. For the future projects, we assure to provide all the necessary welfare amenities for the construction workers as per the condition.
	General Conditions	
I.	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB) and the State Government.	We abide by the stipulations made by the Gujarat Pollution Control Board.
II.	No further, expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed. Company has received Enviornment Clearance (EC) for modification project on 02.03.2022.
III.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM_{10}, SO_2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and SPCB / CPCB once in six months.	Installed Four nos. of Continuous (24*7) Ambient Air Quality Monitoring Stations (CAAQMS) and real-time data connected to CPCB server. Monthly Manual ambient air monitoring is being done by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC and reports are being submitted to GPCB & MoEF&CC regularly. Third party Ambient Monitoring Results for Apr'22 – Sep'22 submitted as Annexure – 8.
IV.	Industrial waste water shall be properly collected, treated so as to conform to the standards	Monthly manual effluent monitoring is being done by Third Party (M/s. Pollucon Laboratories Pvt.

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	prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	Ltd.) approved by NABL & Recognized by MoEF&CC, and reports are being submitted to GPCB & MoEF&CC. Monthly manual Marine monitoring of Tapi Estuary is being done by Third Party NABL accredited laboratory to evaluate the marine status of the estuary due to effluent discharge and report of the same is sent to GPCB on monthly basis. Similarly, a six monthly report is also being sent to MoEF&CC. Third party Effluent Results for Apr'22 – Sep'22 submitted as Annexure – 10.
V.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Acoustic hoods, Silencers, Enclosures etc. are already installed at various locations in the plants on all sources of noise generation. Monthly manual noise monitoring is being done by Third Party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC, and reports are being submitted to GPCB & MoEF&CC. Third party Noise Monitoring Results for Apr'22 – Sep'22 submitted as Annexure – 4.
VI.	Occupational Health surveillance of the workers shall be done on a regular basis and records maintained as per Factories Act.	Occupational Health Surveillance Program & medical checkup of all workers & employees of company are being carried out and records of the same are maintained. Contractual Worker's & Employee's Medical Checkup working in Hazardous operations – Once in Six months. Contractual Worker's & Employee's Medical Checkup – Once in a year. Pre-employment Medical checkup also carried out.
VII.	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Total 5,24,482 m3 rain water harvested for the period Apr'22 – Sep'22.
VIII.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care etc.	Project is not being implemented. However, we have undertaken community development activities for nearby villages. Till 2019, the unit was under NCLT process and no major CSR activities was carried out. Last year CSR Activity details is submitted as Annexure 11.

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<table>
<tr><td>IX.</td><td>Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEF&CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhopal. The funds so provided shall not be diverted for any other purpose.</td><td>In the ongoing operations, capital Cost spent towards installation of Air & Water pollution control measures is Rs. 557 Crores.

Recurring Cost for operation & maintenance of Pollution control equipment:

<table><tr><th>Year</th><th>Recurring Cost (Rs. In Crores)</th></tr><tr><td>2019-20</td><td>152</td></tr><tr><td>2020-21</td><td>143</td></tr><tr><td>2021-22</td><td>111</td></tr></table>
Details already submitted to Ministry office.</td></tr>
<tr><td>X.</td><td>A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.</td><td>Clearance letter already published in the leading newspapers in local language and in English. Copy is already submitted to Ministry through previous EC compliance report dated 30-11-2021.

No suggestions/ representations received from any Local body / NGOs while processing the proposal.

Clearance letter already uploaded on the website of the company.</td></tr>
<tr><td>XI.</td><td>The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEFCC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM_{10}, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</td><td>Environment clearance condition compliance report including results of monitored data already uploaded on the website of the company.</td></tr>
<tr><td>XII.</td><td>The Project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e mail) to the Regional Office of MoEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhopal/ CPCB/ SPCB shall monitor the stipulated conditions.</td><td>We are complying.

Six monthly Environment Clearance Condition compliance report is being sent to MoEF&CC & same data uploaded on to the website of MoEF&CC regularly.

For the period of Oct'20 to Mar'21 report already submitted dated 31-05-2021 on MoEF&CC website.</td></tr>
<tr><td>XIII.</td><td>The environmental statement for each financial year ending 31st March in Form - V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection)</td><td>We are regularly submitting environmental statement in Form V to Gujarat Pollution Control Board.
Form V for 2021-22 is enclosed herewith as Annexure -7.</td></tr>
</table>

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	Rules, 1986 as amended subsequently, shall also put on website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MoEFCC at Bhopal by e mail.	
XIV.	The project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment, Forests and Climate Change (MoEFCC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one should be in vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhopal.	Details already submitted in the compliance report of Oct'20 to Mar'21 dated 31-05-2021.
XV.	Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Will be complied after commissioning of the project.

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Annexure - C

Compliance status of Environmental & CRZ Clearance for expansion of Captive jetty by 734m from 456m to 1190m - Vide No. 11-65/2005-IA-III dated 18th September 2006

COND. NO.	POINTS TO BE COMPLIED	COMPLIANCE STATUS as on 30.09.022
A	**Specific Condition**	
i)	All the recommendations listed in the Environmental Management plan, Environmental Impact and Assessment prepared by NIO should be strictly implemented.	We abide.
ii)	The dredged material obtained should be utilized for filling back up area.	Complied, Dredged material used for filling back up area (~ 35 ha) behind the Jetty.
iii)	The recommendations of the CWPRS mathematical model studies with respect to hydrodynamics should be implemented.	CWPRS has concluded that there would be no significant changes flow conditions in the Tapi Esturay.
iv)	Appropriate shore erosion measures should be taken up as indicated in the report of NIO.	As per the report of CWPRS, shore line on the southern side of existing jetty remains stable therefore shore erosion measure are not required.
v)	It should be ensured that during construction and operation of mangroves located about 1,000 m North of the proposed jetty should not be affected.	Being complied, Mangrove in that area is untouched.
vi)	Monitoring and mitigating steps to prevent pollution of Tapi estuary by the project should be taken up in their area.	Monthly manual Marine monitoring of Tapi Estuary is being done by Third Party & NABL accredited laboratory to evaluate the marine status of the estuary due to effluent discharge and report of the same is sent to GPCB on monthly basis. Similarly, a six monthly report is also being sent to MoEF&CC. Further 8 locations sampling and analysis of physico-chemical & biological environmental monitoring is carried out in 2020 (pre monsoon and post monsoon) to study the overall impact on marine environment due to discharge of Treated effluent to the estuary by Third Party (M/s. Shree Green Environmental Laboratories) NABL accredited laboratory involving Marine ecology & Bio-diversity expert.
vii)	The recommendations of NIO in the EIA report shall be followed.	We abide.
viii)	All the conditions stipulated by the Gujarat Pollution Control Board in their consent letter No.PC/NOC/SRT-1404/2271 dated 27.1.2004 should be effectively implemented.	GPCB issued the Consent to Operate and the consent condition are being complied

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ix)	All the conditions stipulated by the Government of Gujarat, Forests and Environment Department should be effectively implemented.	Being complied.
x)	Sewage arising in the port area should be disposed off through septic tank – Soak pit system or shall be treated along with the industrial effluents to conform the standards stipulated by GPCB and shall be utilized/re-cycled for gardening, plantation and irrigation.	Sewage is being disposed of through septic tank – soak pit system.
xi)	Adequate plantation should be carried out along the roads of the Port premises and a green belt should be developed.	Plantation around Roads & Green belt developed.
xii)	There should be no withdrawal of ground water in CRZ area, for this project. The proponent should ensure that as a result of the proposed constructions, ingress of saline water into ground water does not take place. Piezometers should be installed for regular monitoring for this purpose at appropriate locations on the project site.	No Ground water is withdrawn for this project.
xiii)	The project should not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/Electricity Department.	Required water withdrawal permission & Electricity supply permission obtained on behalf of Steel complex.
xiv)	Specific arrangements for rain water harvesting should be made in the project design and the rain water to be harvested should be optimally utilized. Details in this regard should be furnished to this Ministry's Regional Office at Bhopal within 3 months.	Rainwater conservation is practiced. Company having 6 Nos. of water reservoirs for rainwater harvesting in the complex.
xv)	All the developmental activities and the facilities to be constructed in the CRZ area as a part of this project should be strictly in conformity with the provisions of the CRZ notification, 1991 as amended subsequently.	Agreed
xvi)	Green buffer zone should be provided all round the project area in consultation with local forest department and the report submitted to this Ministry's Regional Office at Bhopal.	Green Buffer Zone by way of plantation is being developed in AMNS Complex.
xvii)	No product other than those permissible in the Coastal Regulation Zone Notification, 1991 should be stored in the Coastal Regulation Zone area.	Agreed
xviii)	The project proponent should undertake up activities to improve the quality of life of the local people living along the project site. The activities should include supply of drinking water, providing rainwater harvesting structures.	Undertaken Community development activities for nearby villages since inception..

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xix)	The relocation of the fishermen community should be done strictly in accordance with the norms prescribed by the State Government. The relocated fishermen community if any will be provided with all facilities including health care, education, sanitation and livelihood.	Project does not involve any relocation of fisherman.
B	**General Condition**	
i)	Construction of the proposed structures should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification 1991 and its amendments. All the construction designs/drawings related to the proposed construction activities must have approvals of the concerned state Government Departments / Agencies.	Construction drawings have been approved by GMB.
ii)	Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surroundings.	Adequate Amenities provided during the construction stage.
iii)	The project authorities must take necessary arrangements for disposal of solid wastes and for the treatment of effluents by providing a proper wastewater treatment plant outside of CRZ area. The quality of treated effluents, solid wastes and noise level etc. must conform to the standards laid down by the competent authorities including the Central/State Pollution Control Board and the Union Ministry of Environment and Forests under the Environment (Protection) Act, 1986 whichever are more stringent.	Solid wastes, mainly garbage generated from Tugs / barges are being collected & disposed. Haz.waste – used oil / Waste oil disposed to authorized recyclers
iv)	The proponent shall obtain the requisite consents for discharge of effluents and emissions under the water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 from the Gujarat Pollution Control Board before commissioning of the project and a copy of these shall be sent to this Ministry.	CCA already received from GPCB.
v)	The proponents shall provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The records of analysis reports must be properly maintained and made available for inspection to the concerned State/Central officials during their visits.	Monthly monitoring of Treated Effluents is being carried out by Third Party Approved Lab and report of the same is sent to GPCB on monthly basis. Similarly, a six monthly report is also being sent to MoEF&CC.

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vi)	In order to carry out the environmental monitoring during the operational phase of the project, the project authorities should provide an environmental laboratory well equipped with standard equipment and facilities and qualified manpower to carry out the testing of various environmental parameters.	Monthly Environmental monitoring is being done by Third Party Approved Laboratory and report of the same is sent to GPCB on monthly basis. Similarly a six monthly report is also being sent to MoEF&CC.
vii)	The sand dunes and mangroves, if any, on the site should not be disturbed in any way.	No mangroves & Sand dunes in the project site
viii)	A copy of the clearance letter will be marked to the concerned panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	Has already been done by GPCB.
ix)	The Gujarat Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office/Thasildar's office for 30 days.	Has already been done by GPCB.
x)	The funds earmarked for environment protection measures should be maintained, in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry's Regional Office at Bhopal and the State Pollution Control Board.	Expenditure done for environmental safeguards towards entire complex for FY 2021-22 is Rs.111 Crores.
xi)	Full support should be extended to the officers of this Ministry's Regional Office at Bhopal and the officers of the Central and State Pollution Control Boards by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	Full Support & co-operation is extended to officers of the ministry.
xii)	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection.	We abide.
xiii)	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.	We abide.
xiv)	The Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.	We abide.
xv)	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be	Advertised in the month of September'06.

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	in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with State Pollution Control Board and may also seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in. The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	
xvi)	The project proponents should inform the Regional Office at Bhopal as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of Land Development Work	Financial closure of the project has been completed and we have obtained consent to operate from GPCB for the unit cleared vide under this EC.

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Annexure – D

Compliance status of CRZ Clearance for 220 KV M/C Transmission Tower Line from the Captive Power plant to ArcelorMittal Nippon Steel India Limited (Formerly Essar Steel India Limited) at Hazira Vide F. No. 11-1/2012 – IA .III Dated.11th January, 2013

COND. NO.	POINTS TO BE COMPLIED	COMPLIANCE STATUS as on 30.09.2022
	Specific Conditions	
i)	All the conditions stipulated by the SCZMA shall be complied with.	Compliance is attached as Annexure -13.
ii)	There shall be no drawl of ground water.	No Ground water drawl is being done.
iii)	Construction shall be carried out strictly as per the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	No activities carried out in CRZ area other than permitted.
iv)	There shall be no disposal of solid and liquid wastes in the Coastal areas.	We comply this condition.
	General Conditions	
i)	Full support shall be extended to the officers of this Ministry / Regional Office at Bhopal by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Full support & co-operation is extended to officers of the Ministry.
ii)	Ministry & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	We abide.
iii)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	We abide.
iv)	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Till date no change in project profile.

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v)	A copy of the clearance letter shall be marked to concerned panchayat / local NGO, If any, from whom any suggestion/representation has been made received while processing the proposal.	We comply this condition.
vi)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office / Tehsildar's Office for 30 days.	GPCB had already complied.
8.	The project proponent shall advertise in at least two local News papers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copy of clearance letters available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in.The advertisement should made within 10 days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	We have advertised the same in two local newspapers on 23.01.2013.
9.	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ petition (Civil) No.460 of 2004 as may be applicable to this project.	We abide.
10.	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	We abide.
11.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall be put on the website of the company by the proponent.	Clearance letter already sent to Panchayat, Municipal corporation & Urban local body.
12.	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	We abide.

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Item No. 05 (Court No. 1)

BEFORE THE NATIONAL GREEN TRIBUNAL
SPECIAL BENCH

(By Video Conferencing)

Original Application No. 27/2020(WZ)
(I.A. No. 120/2020 & I.A. No. 121/2020)

Roshni Patel Applicant

Versus

Union of India & Ors. Respondent(s)

Date of hearing: 21.03.2022

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER
HON'BLE DR. VIJAY KULKARNI, EXPERT MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

Applicant: Ms. Shilpa Chohan, Advocate

Respondent(s): Ms. Manasi Joshi, Advocate for MoEF & CC
Mr. Parth H. Bhatt, Advocate for R - 2 & 3
Mr. Rahul Garg, Advocate for CPCB
Mr. Maulik Nanavati, Advocate for GPCB
Mr. Devadatta Kamat, Senior Advocate with Mr. Rohan Shah, Advocate for R-7
Mr. Dhruv Mehta, Senior Advocate with Mr. Nawneet Vibhaw, Advocate for R-8

ORDER

1. Grievance in this application is against unscientific dumping of slag and fly ash on Forest land by Respondent No. 7, Hazira Freight Container Station Pvt. Ltd. (HCFS) and Respondent No. 8, M/s Essar Steel India Ltd. (ESIL).

2. According to the applicant, (HCFS) and (ESIL) have set up Container Freight Station (CFS) and Electric Arc Furnace (EAF) respectively at Hazira Industrial area in Surat, Gujarat in CRZ IB area, in

violation of CRZ notification. Waste generated from their activities are not scientifically handled which adversely affects the environment including the rights of traditional fishermen. Fly ash and slag are illegally used for reclamation of low-lying area without requisite authorisation under the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 (HOW Rules). MoEF&CC conditions for approval of diversion of 25 ha of unclassed forest land to respondent no. 7/HCFS have not been complied. Further, the said area falls within Coastal Regulation Zone area (hereinafter referred to as CRZ) categorized as CRZ-IB area in which case CRZ Clearance is also required which has not been granted. Activity of Respondent No. 7 is not permitted in CRZ area. Respondent No. 8 has set up furnace and other plants for which EC has been granted without considering scientific management of the waste generated in the process. Respondent No. 7 is reclaiming the area by filling fly ash which is prohibited under para 3 of the CRZ Notification, 2011. The area is also natural habitat for the wildlife and such habitat will be disturbed by the developmental activities. There is violation of HOW Rules as hazardous waste is being dumped without requisite authorization under the said Rules. There is also violation of Fly Ash Notification, 1999 and CPCB Guidelines on Scientific Management of Fly Ash. Respondent no. 1 to 6 - MoEF&CC, Gujarat Government, GCZMA, CPCB, GPCB and District Magistrate, Surat have failed to take remedial action inspite of representation of the applicant.

3. The application was filed on 09.06.2020 and came up for hearing on 04.08.2020. The Tribunal issued notice to the respondents. In response to the same, reply has been filed by Respondent Nos. 7 & 8, apart from the action taken report filed by GPCB and reply filed by GCZMA and the CPCB.

4. Stand of HCFS is that the container terminal has been set up as there was no CFS facility at Hazira. Diversion of 25 hectares of land was sought for the purpose as per applicable procedure. In-principle approval was granted by MoEF&CC on 30.05.2014 and final approval was granted on 30.01.2015 after all conditions were fulfilled. Government of Gujarat issued order dated 07.02.2015 on that basis. Lease agreement dated 19.02.2015 was executed by the State of Gujarat for the project and possession of the land was handed over. Mutation to that effect was also entered into Revenue record. Institute of Remote Sensing, Anna University, Chennai undertook mapping in pursuance of letter dated 01.04.2017 and submitted its report on 03.07.2018 to the effect that the area was completely outside the CRZ as per NCSCM map. GPCB also submitted its report dated 22.07.2016 and thereafter necessary consent to establish was granted. Requirements of compulsory afforestation etc. were duly complied and compliance report was filed on 27.03.2019 with the Deputy Conservator of Forest (DCF). Since the land was low lying area and adjoined National Highway, fly ash from ESIL and M/s Reliance Industries was taken for reclamation of the land, in accordance with the Notification dated 14.09.1999.

5. Stand of ESIL is that its name has since changed to Arcelor Mittal Nippon Steel India Limited under an order of NCLT. The said unit has requisite EC and consents as well as authorization under the HOW Rules, on 07.04.2020 and 20.05.2020 and also the Biomedical Waste Authorization. The details of hazardous waste generated and disposed are mentioned as follows:-

"

S. No.	*Particulars*	*Disposal/recycling*
1.	*Chemical sludge from*	*Disposal at GPCB approved*

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

"

6. The action taken report filed by GPCB gives the status of the industries in terms of compliance as well as details of generation and disposal as follows:-

"3) Latest status of the Industries:

(i) M/s. Hazira Freight Container Station Pvt Ltd located at Survey No. 434 paiki 1/A, Village: Hazira, Ta: Choryasi, District: Surat is visited with reference to verification on dated 04/09/2020. Salient features of inspection report are as follows:

- *Industrial unit is Red Category and Large scale.*
- *Unit has obtained Consent to Establish (CTE) for Dry Cargo Handling-85000 MT/Month, valid up to 28/06/2023.*
- *They have started to store empty containers as part of port backup facility.*
- *Applied for Consolidate Consent and Authorization (CCA) of the Board on 3009-2020.*
- *Detail Inspection report (IR) is attached as (Annexure – I.)*
- *Show Cause Notice issued to unit for not obtained CC&A of the Board dated 18.09.2020*

General Observation:

- *Looking to the situation, unit has reclaimed premises (Survey no. 434 paiki 1/A) having 25 ha. land area by fly ash and out of total @ 70% top surface of premises is found covered with slag.*

- *Industry has constructed boundary wall at periphery of the premises. Industry has started to store empty containers as port backup facility.*

- *Contacted person Mr. Girish Gupta (Incharge) has furnished land possession certificate duly signed by Range Forest Officer (RFO), Dumas. As per this certificate unit has taken over 25 ha. forest land (S. No. 434/A/1) on dated 19.02.2015 from Ministry of Environment & Forest, New Delhi for port backup facility. (Annexure - II)*

- *Industry has obtained CTE-83802 dated 15.02.2017 from the Gujarat Pollution Control Board (GPCB). Industry has submitted letter to this office dated 08.09.2020 (Annexure - III) and stated that they had reclaimed 25 ha. premises land by fly ash and Electric Arc Furnace (EAF) - Slag which was received from M/s. Essar Steel India Ltd and M/s. Reliance Industries Ltd (through M/s. Ashtech India Pvt Ltd).*

- *Unit has submitted demarcation report prepared by Institute of Remote Sensing, Anna University, Chennai-25 during July, 2018. According to the report the site (Block/Survey No: 434/A/1) is about 306m from HTL (Creek) line.(Annexure - IV).*

- ***Hazira Freight Container Station Pvt. Ltd. have also submitted details vide their letter dated 17-09-2020 regarding fly ash received from M/s. Reliance Industries Ltd and fly ash and slag received from M/s Essar group of industry** is attached as (Annexure – V).*

(i) *M/s. Essar Steel India Ltd is visited with reference to verification on dated 03/09/2020. Salient features of inspection report are as follows:*

- *Survey no. 261 of village Hazira is within the premises of M/s. Essar Steel India Ltd.*

- *At present, no dumping/storage of the fly ash/slag/Hazardous Waste is observed on the survey no. 261*

- *In past, this unit has disposed its Electric Arc Furnace (EAF) Slag and Fly ash for filling of low lying area of land of survey no. 434 paiki 1/A of M/s. Hazira Freight Container Station Pvt. Ltd (Annexure-III).*

- *Details of total generation & disposal of fly ash from M/s. Essar Steel India Ltd is attached as (Annexures- VI-A) and (Annexures- VI-B).*

(iii) M/s. Reliance Industries Ltd is visited with reference to verification on dated 04/09/2020. Salient features of inspection report are as follows:

- *This unit is giving its fly ash to M/s. Ashtech India Pvt Ltd for filling of low lying areas, brick manufacturers and cement manufacturers.*
- *Show cause Notice issued to M/s. Reliance Industries Ltd on 18.09.2020.*
- *Details of total generation & disposal of fly ash from M/s. Reliance Industries Ltd is attached as (Annexure – VII).*
- ***M/s. Hazira Freight Container Station Pvt Ltd has received fly ash form M/s. Reliance Industries Ltd through M/s. Ashtech India Pvt. Ltd for land filling in their land** (Annexure-III).**"***

7. The reply filed by GCZMA is that the plot of respondent no. 7 falls outside the purview of CRZ. Reply by CPCB is of formal nature.

8. We have heard learned Counsel for the parties and considered the issues raised.

9. First question raised on behalf of the Applicant is that the area in question is CRZ-IB where no developmental activities are permissible. It is submitted that the report of Anna University which has been relied upon is based on 2011 CZM Map and not the 2019 CZM Map.

10. Learned Counsel for the respondents have opposed the submission relying on letter dated 04.11.2020 addressed to the GCZMA by the Gujarat Ecology Commission, Government of Gujarat as follows:-

> *"However, as desired, **we have superimposed the plot on the recently NCZMA approved CZMP Map Sheet No. F/43 M 12/NE {1:25000 scale}. Based on which, aforesaid plot of M/s Hazira Container Freight Station Pvt. Ltd. falls outside the CRZ applicability. Copy of the 1:25000 scale maps is attached herewith for your ready reference**."*

11. Second question raised by the applicant is that there is violation of guidelines for utilization of fly ash in reclamation. This submission is also opposed by the respondents by referring to the Notification dated 14.09.1999 to the following effect:-

> *"*[2]*[(7)]* ***No agency, person or organisation shall within radius of hundred kilometres of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with the specifications and guidelines laid down by the authorities mentioned in sub paragraph (1) of paragraph 3****."*

12. Further, in action taken report filed by the GPCB, compliance status has been mentioned as follows:-

> **"***Compliance status during visit;*
>
> *1. Unit has used Fly Ash (from M/s. Reliance Industries Ltd & M/s. Essar Steel India Ltd) and Slag (of M/s. Essar Steel India Ltd) for reclamation of their forest land (25 ha) acquired from Forest Department as* ***both fly ash and slag is not considered as Hazardous waste as per the Note of Schedule-I [See rule 3(1) (17) (i)] of Hazardous And Other Wastes (Management and Tran boundary Movement) Rules- 2016****."*

13. We have duly considered the matter and are unable to accept that the area in question is in CRZ IB, as alleged by the applicant. We also do not find any illegality in using flyash for filling low lying area as per laid down procedure for the reasons mentioned above. However, if fly ash supplied by ESIL to HCFS is not as per permitted norms, it will be open to GPCB to look into this aspect as per law, including the consent conditions.

The application is disposed of.

All pending IAs will also stand disposed of.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

Dr. Vijay Kulkarni, EM

Dr. Afroz Ahmad, EM

March 21, 2022
Original Application No. 27/2020(WZ)
(I.A. No. 120/2020 & I.A. No. 121/2020)
SN

ANNEXURE R- 5/16

IN THE SUPREME COURT OF INDIA
CIVIL APPELLATE JURISDICTION

Civil Appeal No 4898 of 2022

Roshni Patel **.... Appellant(s)**

Versus

Union of India & Ors **....Respondent(s)**

O R D E R

1 We find no error in the order of the National Green Tribunal dated 21 March 2022 in Original Application No 27/2020 (WZ).

2 The appeal is accordingly dismissed.

3 Pending application, if any, stands disposed of.

.....J.
[Dr Dhananjaya Y Chandrachud]

.....J.
[J B Pardiwala]

New Delhi;
August 05, 2022
-S-

ITEM NO.5 COURT NO.3 SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Civil Appeal No(s).4898/2022

ROSHNI PATEL **Appellant(s)**

VERSUS

UNION OF INDIA & ORS. **Respondent(s)**

(WITH IA No.101612/2022-EXEMPTION FROM FILING C/C OF THE IMPUGNED JUDGMENT)

Date : 05-08-2022 This appeal was called on for hearing today.

CORAM :
HON'BLE DR. JUSTICE D.Y. CHANDRACHUD
HON'BLE MR. JUSTICE J.B. PARDIWALA

For Appellant(s) **Ms. Shilpa Chohan, Adv.**
Mr. Shawalig Siddiqui, Adv.
Mr. Jitender Choudhary, Adv.
Mr. Rajesh Singh, AOR

For Respondent(s)

UPON hearing the counsel the Court made the following
O R D E R

1 The appeal is dismissed in terms of the signed order.

2 Pending application, if any, stands disposed of.

(SANJAY KUMAR-I) **(RAM SUBHAG SINGH)**
DEPUTY REGISTRAR **COURT MASTER**

(Signed order is placed on the file)

BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN BENCH, PUNE

APPEAL NO. 27 OF 2022 (WZ)

IN THE MATTER OF:

Thakorbhai Vallabhbhai Khalasi ...Appellant

Versus

Ministry of Environment, Forest and Climate Change and Ors.

...Respondents

AFFIDAVIT OF SERVICE

I, Himanshu Pabreja, s/o Shri Sanjay Kumar Pabreja, aged 26 years, engaged as an advocate with Shardul Amarchand Mangaldas & Co., located at Amarchand Towers, 216, Okhla Industrial Estate, Phase – III, New Delhi - 110020, do hereby solemnly affirm and say as follows:

1. That I am the Advocate for Respondent No. 5 in the above-named matter and as such, I am acquainted with the facts of the case to the extent stated in this affidavit.

2. That this Hon'ble Tribunal *vide* its Order dated 14.12.2022 directed to list the captioned matter for admission hearing on 17.01.2023. The matter was further shifted for hearing on 15.03.2023. Respondent No. 5 has filed Reply to the captioned appeal, and has served its copies to the Appellant and other Respondents through email dated 13.03.2023.

3. I am advised to state that the conditions of Section 65B of the Indian Evidence Act, 1872 are complied with, in servicing the said Reply. I

NOTARY Rajendra Kumar Delhi Regd. No. 5330 Date of Expiry 27th April-2023 GOVT. OF INDIA

state that I have taken printout of the relevant page and information from the World Wide Web (Internet) as downloaded by me on my computer system and no manipulations have been done. I state that printout(s) were taken using a computer, which was operating properly and under my lawful control. I state that the said computer is being regularly used to send e-mails and electronic communication in the ordinary course of its use.

4. That the statements contained in all the paragraphs of the foregoing affidavit are true to my knowledge.

SOLEMNLY AFFIRMED AT NEW DELHI ON THIS 13TH DAY OF MARCH 2023]

DEPONENT

VERIFICATION

I, the deponent above named, do hereby solemnly affirm and state that the contents of the accompanying affidavit are true and correct to the best of my knowledge and nothing material has been concealed therefrom.

Verified at New Delhi on this 13th day of March 2023.

NOTARY Rajendra Kumar Delhi Regd. No. 5780 Date of Expiry 27th April-2023 GOVT. OF INDIA

NOTARIAL

NOTARY Rajendra Kumar Delhi Regd. No. 5780 Date of Expiry 27th April-2023 GOVT. OF INDIA

DEPONENT

BEFORE ME
RAJENDRA KUMAR
NOTARY, DELHI-R-5780
GOVERNMENT OF INDIA
SUPREME COURT OF INDIA
COMPOUND, NEW DELHI
Register Pg./Sl. No.....
Mobile No.: 9899446209
13 MAR 2023

RAJENDRA KUMAR, NOTARY, Reg. No. 5780
F No.-5(486)
EMPOWERED TO ADMINISTER THE OATH
SECTION 139 OF CPC 1908
SECTION 297 OF CRPC 1973
DELHI HIGH COURT RULES 1967
PART-6, CHAPTER VIII-427
EVIDENCE BY AFFIDAVIT BEFORE NOTARY
SUPREME COURT RULES, 2013
ORDER IX-7
13 MAR 2023

CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT EXECUTIVE WHO IS SEEMED PERFECT TO UNDERSTAND & AFFIRMED/DEPOSED BEFORE ME AT DELHI ON 13 MAR 2023 IDENTIFIED BY
IDENTIFY THE EXECUTIVE / DEPONENT WHO HAS SIGNED IN MY PRESENCE
IDENTITY THE EXECUTANT / DEPONENT WHO WAS SIGNED IN THE PRESENCE OF

PROOF OF SERVICE

Pabreja, Himanshu

From:	Pabreja, Himanshu
Sent:	Monday, March 13, 2023 1:03 PM
To:	'shilpa.ielo@gmail.com'; 'secy-moef@nic.in'; 'secfed@gujarat.gov.in'; 'ms-gpcb@gujarat.gov.in'; 'maulik@nanavatico.com'; 'mscb.cpcb@nic.in'
Cc:	Vibhaw, Nawneet
Subject:	Thakorbhai Vallabhbhai Khalasi v MoEFCC | Reply to Appeal No. 27/2022 (WZ) | Respondent No. 5 | Service of the Reply

Dear All,

I write this mail to service to you the Reply on behalf of Respondent No. 5 in the captioned matter before the NGT, Pune Bench. Please find a copy of the Reply (Volume - I and Volume - II) at the following link: https://amsshardul.sharefile.com/d-s4f24bc243c39445e8707ee08cc428351

Please acknowledge the receipt of the same.

Regards,
Himanshu Pabreja
(Counsel for R. No.5)