



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

To,

The Head Projects - Upstream Expansion
M/S. AMNS INDIA LIMITED

survey
no.353,354,179/P,262P,263P,310P,550P,561P,568P,569P,602P,village.h
azira,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/28848/2014 dated 22 Aug 2022. The particulars of the environmental clearance granted to the project are as below.

- EC Identification No.** EC22A008GJ141988
- File No.** J-11011/44/2004-IA.II (I) & J-11011/381/20014-IA I
- Project Type** Expansion
- Category** A
- Project/Activity including Schedule No.** 3(a) Metallurgical industries (ferrous & non ferrous)
- Name of Project** Expansion of Integrated Steel Plant of ArcelorMittal Nippon Steel India Limited from 9.6 to 15.6 MTPA (Liquid Steel), located at Hazira Village in Surat District, Gujarat
- Name of Company/Organization** M/S. AMNS INDIA LIMITED
- Location of Project** Gujarat
- TOR Date** 03 Dec 2021

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

Date: 03/10/2022

(e-signed)
Dr. R. B. Lal
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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F. No. J-11011/44/2004-IA.II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division – Industry I sector)

Indira Paryavaran Bhawan
Vayu Wing, 3rd Floor,
Jor Bagh Road, Aliganj,
New Delhi – 110003

Dated: 3rd October, 2022

To,

M/s ArcelorMittal Nippon Steel India Limited,
Village- Hazira, Taluka-Choryasi, District-Surat
Gujarat-394 270
Email: sankara.Subramanian@amns.in

Project: Expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel) by M/s ArcelorMittal Nippon Steel India Limited (M/s AMNS India Limited), located at Hazira Village in Surat District, Gujarat- Grant of Environmental Clearance regarding.

Sir,

This refers to your proposal no. IA/GJ/IND/28848/2014 dated 22.08.2022 along with copy of EIA/EMP Report, Form - 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. Further, the Project Proponent has uploaded the information on parivesh portal on 13.09.2022.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered under category 'A' of item **3(a) Metallurgical Industries (ferrous & non-ferrous), 1(d) Thermal Power Plant & 4(b) Coke Oven Plant of the EIA Notification, 2006 and appraised at Central Level.**

3. The above-mentioned proposal has been considered in **12th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 30th-31st August 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/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1 Sector) are as under: -

S. No.	Particulars	Details submitted by the PP
a.	Terms of Reference for undertaking EIA study	03.12.2021 followed by amendment dated 30.05.2022
b.	Period of baseline data collection	7 th March 2021 to 6 th June 2021
c.	Date of Public Consultation	18 th July 2022
d.	Action plan to address the PH issues	An amount of Rs. 140 Cr. have been earmarked to address the issues raised during public hearing. Detail of activities alongwith



S. No.	Particulars	Details submitted by the PP																					
		budget proposed by PP is attached at Annexure 1.																					
e.	Location of the project	Village- Hazira, District-Surat, Gujarat																					
f.	Latitude and Longitude of the project site	21° 6' 43.72''N; 72° 38' 40.29''E																					
g.	Total land	Total land: 824.82 Ha. [Industrial: 750.18 Ha, Private: 8.91 Ha, Forest land 65.73 Ha]																					
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land required for proposed expansion: <ul style="list-style-type: none"> • 65.73 Ha Forest land which is under possession (FC-II is available) • 8.91 Ha private land (direct purchase from Land owners) • 72.53 Ha area will be used from Existing area. 																					
i.	Existence of habitation & involvement of R&R, if any	Nil and hence no R&R is involved																					
j.	Elevation of the project site	4-6 m above mean sea level.																					
k.	Involvement of Forest land if any.	86.49 Ha [20.76 Ha Forest land under existing area and 65.73 Ha under the proposed area.] Stage II Forestry Clearance received for 65.73 Ha Forest land Stage I Forestry clearance received for 20.76 Ha. forest land (inside existing township).																					
l.	Water body exists within the project site as well as study area	Project site: There is no water body existing within the project site. Study area: <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Arabian Sea</td> <td>1 km.</td> <td>S</td> </tr> <tr> <td>Tapi Estuary</td> <td>0.5 km.</td> <td>E</td> </tr> <tr> <td>Hazira village pond</td> <td>2.2</td> <td>S</td> </tr> <tr> <td>Suvali village pond</td> <td>3.3</td> <td>NNW</td> </tr> <tr> <td>Mora village pond</td> <td>2.7</td> <td>N</td> </tr> <tr> <td>Junagam village pond</td> <td>1.4</td> <td>W</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Arabian Sea	1 km.	S	Tapi Estuary	0.5 km.	E	Hazira village pond	2.2	S	Suvali village pond	3.3	NNW	Mora village pond	2.7	N	Junagam village pond	1.4	W
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Junagam village pond	1.4	W																					
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil. Forests: <ul style="list-style-type: none"> ▪ Hazira Reserve Forest 1.72 SSW ▪ Open Forest near Dumas Village 5.42 SE ▪ Open Forest near Vasava Village 6.40 NNW 																					
n.	Project cost	The existing capital cost of project was Rs.35,000 Crores. The capital cost of the project is estimated at Rs. 35,145 Crores and the capital cost for environmental protection measures is proposed as Rs. 1622 Crores.																					
o.	EMP cost	The annual recurring cost towards the environmental protection measures is proposed as Rs. 151.02 Crores.																					
p.	Employment opportunity	The employment generation from the proposed project / expansion is direct 1750 and indirect 5250																					
q.	Water and Power	The existing water requirement is 145,839 m3/day which is																					

S. No.	Particulars	Details submitted by the PP
	requirement	<p>obtained from the Tapi River and permission for the same has been obtained. The water requirement for the proposed project is estimated as 91,560 m³/day, out of which 81,600 m³/day of freshwater requirement will be obtained from River Tapi and remaining requirement of 9,960 m³/day will be met from Effluent Treatment Plant.</p> <p>The existing power requirement is 1163 MW (including 125 MW for proposed modification project). The power requirement for the project is estimated as 1573 MW, out of which 810 MW will be obtained from the Captive Power Plant, 243 MW from the Third party and 520 MW from Grid (Power System Operation Corporation Limited).</p>

Unit configuration and capacity:

S. No.	Plant / Equipment / Facility	Existing as per EC dated 9 th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
1	HBI Plant (DRI Mod I to VI)	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	<p>*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.</p> <p>Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity.</p> <p>CTO has been sanctioned for 7.83 MTPA.</p>
2	Blast Furnace (BF)	BF#1: 2.04 MTPA (1x2200 m ³) 1X3.0#	5.04*	BF#1: 0.96 MTPA BF#2 &3: 2 x 4.0 (~4500 m ³ each)	8.96	BF#1: 3.0 MTPA (2200 m ³) BF#2: 4.0 MTPA (4500 m ³) BF#3: 4.0 MTPA (4500 m ³)	11.0	<p>Existing operational capacity of BF#1 is proposed to be upgraded from 2.04 MTPA to 3.0 MTPA.</p> <p># 1X3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT.</p> <p>Further, additional 2 nos. of BFs of capacity 4.0 MTPA, each are</p>

S. No.	Plant / Equipment / Facility	Existing as per EC dated 9 th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
								proposed.
3	Sinter Plant	1x 1.48 MTPA (1 x 120 m2) 2x 3.5(~325 m2 each)	8.48*	2 x 3.5 MTPA (~ 325 m2 each)	7.0	1x 1.48 MTPA (1 x 120 m2) + 2 x 3.5 MTPA (~ 325 m2 each)	8.48	*7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT and it was dropped. Now, it is proposed to install 7.0 MTPA Sinter Plants. (It will comprise of 02 number plants).
4	Coke Ovens (Recovery Type)	1x 1.2 1x1.35#	2.55*	CO Battery# 3,4,5 & 6 4 x 59 Ovens	3.05	CO Battery#1 to 6 6 x 59 Ovens	4.4	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. #1.35 MTPA is under implementation.
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 1x2200 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	424,744	Capacity indicates oxygen only.
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 replace 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 (Con Arc 4 Nos.)	4 x 200 MT Heat size	5.0	--	--	4 x 200 MT Heat size	5.0	

S. No.	Plant / Equipment / Facility	Existing as per EC dated 9 th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
8	SMS-3 (BOF – 3 nos.)	--	--	3 x 350 MT Heat size *	6.0	3 x 350 MT Heat size *	6.0	New SMS-3 Shop for 6.0 MTPA is proposed. 3x350 Ton Converters shall be installed (* 2 Working + 1 stand-by)
Total SMS		9.6		--	6.0	15.6		
9	COREX Plant	2 x 0.85	1.7	-	-	2 x 0.85	1.7*	* Plant will be shutdown safely and will be started only in case of any other unit going down but maintaining sanctioned production quantity of hot metal.
10	Lime Plant (Lime/ Dolomite)	1 x 0.45 (4 x 300 TPD) 1 x 0.48 (3 x 500 TPD) 1 x 0.27* (1x200 + 1x500 TPD)	1.2	1 x 0.8 (4 x 600 TPD)	0.8	1 x 0.45 1 x 0.48 1 x 0.27* 1 x 0.8	2.0	* 0.27 MTPA plant shall be installed under Modernisation EC granted on 02.03.2022. 0.8 MTPA proposed in this expansion.
11	Plate Mill	1 x 1.5	1.5	--	--	1 x 1.5	1.5	
12	CSP & HRC	CSP 1 x 3.5 MTPA HRC 1 x 4.5 MTPA	8.0*	1 x 6.0 MTPA	6.0	1 x 3.5 MTPA 1 x 4.5 MTPA 1 x 6.0 MTPA	14.0	*Approved vide 29th May 2008 EC for 4.5 MTPA and this was operationalized through CTO. 3.5 MTPA provided under 2016 EC and operationalized under CTO.
13	CRM	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	5.24	---	---	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	5.24	CRM 3.2 MTPA is being implemented under Modification EC dated.02.03.202.
14	Pipe Mill							
	H Saw Pipes	1 x 0.15 1 x 0.15	0.30	--	--	1 x 0.15 1 x 0.15	0.30	
	L Saw Pipes	1 x 0.33	0.33	--	--	1 x 0.33	0.33	
15	CPP	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 1x48 MW*	(604-48) 556	2 x100 MW (By-product Gas based PP) 2 x 25 MW (TRT BF # 2&3)	250 MW	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 2 x100 MW 2 x 25 MW	806	#1x48 MW dropped as per modification project EC dated.02.03.2022.
16	Waste Heat Recovery based	1 x 25 MW 1 x 20 MW#	45	1x 100 MW CDQ based	100 MW	1 x 25 MW 1 x 20 MW 1x 100 MW	145	#Will be implemented under the EC 2016



S. No.	Plant / Equipment / Facility	Existing as per EC dated 9 th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
	Power Plant (in MW)					CDQ based		
17	Jetty (length in m)	456 M+ 734 m	456 M+ 734 m	-	-	456 m + 734 m	1190 m	

5. The EAC, in its meeting held during **30th-31st August 2022**, inter-alia, deliberated the following:

- (i) The instant proposal is for expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel).
- (ii) The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
- (iii) The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
- (iv) The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
- (v) The total project area is 824.84 Ha. [Industrial: 729.44 Ha, Private: 8.91 Ha, Forest land 65.73 Ha]. The land required for proposed expansion is 74.64 Ha which comprises of 65.73 Ha Forest land which is under possession (Stage-II FC is available) and 8.91 Ha private land (direct purchase from Land owners).
- (vi) The total water requirement (Existing = 145839 m³/day + Proposed = 91,560 m³/day) is estimated to be 237399 m³/day which will be sourced from Tapi River (227439 m³/day) and Effluent Treatment Plant (9,960 m³/day).
- (vii) The project proponent may explore the possibilities for reduction of water and try to minimize the usage of water less than 3.5 KLD per ton of Steel.
- (viii) Arabian Sea (1 Km), Tapi Estuary (0.5 Km), Hazira village pond, Suvali village pond, Mora village pond, Junagam village pond, Junagam village pond exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
- (ix) The EAC noted that three cases have been filed against the project viz., (1) Writ petition no.14 of 2022 (PIL) filled by Roshni Patel on 01.02.2022 at Hon'ble High Court of Gujarat, (2) Special Civil Application 3931 of 2022 filled by M/s ESSAR Bulk Terminal Limited (EBTL) in the High Court of Gujarat at Ahmedabad on 17.02.2022 and (3) A case filed by Thakorbhai

Vallabhbai Khalasi at Hon'ble National Green Tribunal vide Appeal No. 27/2022. All the three cases are listed for next hearing. The EAC deliberated the details of court cases and EAC is of the view that a specific condition in this regard needs to be stipulated in the EC letter, as, *“This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project”*.

- (x) The EAC noted that from the proposed project area, around 20,000 nos. of trees to be removed. These trees will be transplanted maximum possible inside the boundary in addition to greenbelt development proposed. Balance trees which cannot be transplanted will be removed with necessary statutory permission as per local guidelines.
- (xi) Three Schedule-I species i.e. Pea fowl (*Pavo cristatus*), White-rumped Vulture (*Gyps bengalensis*) and Leopard (*Panthera pardus*) as per Wild Life Protection Act (1972) are found in the buffer zone of the project area. Wildlife Conservation Plan is prepared and approved by PCCF Gujarat vide letter No. WLP/32/C/86b-866/2021-22 dated 15.01.2022 with a yearly approved budget of Rs. 2,75,000 / annum. The EAC deliberated the conservation plan and found in order.
- (xii) The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards except PM10. The EAC deliberated the action plan on the mitigation measures to reduce the particulate matter and found in order.
- (xiii) The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.
- (xiv) The Committee deliberated upon the certified compliance report of IRO, ATR submitted by PP and review report of IRO along with action taken on the observations of IRO in the review report and EAC noted that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan submitted with timelines and a report needs to be submitted within 6 months from grant of EC to the IRO, MoEFCC.
- (xv) The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
- (xvi) The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
- (xvii) The Committee also deliberated on the written submission of PP on the issues raised by EAC during meeting and found it satisfactory. EAC recommended that the written submission also needs to be uploaded on Parivesh portal as the whole process is online.
- (xviii) The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
- (xix) The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

6. The EAC, in its 12th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 30th - 31st August, 2022, based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the proposal for grant of Environmental Clearance subject to stipulation of specific and general conditions as detailed in the point below.

7. 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 Sector) hereby decided to grant **Environment Clearance for instant proposal of M/s ArcelorMittal Nippon Steel India Limited** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions:

A. Specific conditions:

- (i) **This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project. Project proponent shall abide by all the orders and judicial pronouncements, made from time to time, passed by Hon'ble Court.**
- (ii) **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.**
- (iii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (v) Project Proponent shall strictly comply with the conditions observed as not complied / partially complied by the IRO, MoEF&CC in the CCR as per the submitted action plan and timelines and compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (vi) No construction activity/infringement will take place in the flood plain of the Tapi river situated in the vicinity of the project site.
- (vii) Tree felling shall be limited to bare minimum. Transplantation shall be carried out to the maximum possible inside the boundary in addition to greenbelt development proposed in consultation to local forest department for suitable technical equipment and expertise. Tree Felling shall only be undertaken after obtaining necessary statutory permission. Compensatory afforestation shall be undertaken as per the directives of the Forest Department.
- (viii) Solid waste utilization
 - a. Maximum 90 days of slag storage area shall be permitted inside the plant.
 - b. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.

- c. PP shall recycle/reuse 100 % solid waste generated in the plant.
 - d. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
 - e. Used refractories shall be recycled as far as possible.
- (ix) Sinter Plant
- a. Sinter cooler waste recovery system to generate process steam or power shall be implemented within 3 years.
 - b. Equipped with MEROS technology to reduce emission of SO₂, NO_x and heavy metals.
- (x) Coke Oven Plant
- a. Coke Dry Quenching (CDQ) shall be installed along with a modified wet quenching tower as a standby.
 - b. Coke Oven Gas shall be desulfurized.
 - c. Tar sludge shall be mixed with coal and reused.
 - d. Sulphur recovery and ammonia cracker shall be installed in Coke Oven Plant.
- (xi) 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.
- (xii) BF shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
- (xiii) 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.
- (xiv) Basic Oxygen Furnace (BOF) gas shall be cleaned dry. Dry type Gas cleaning type with TRT as proposed under the expansion shall be implemented.
- (xv) Waste Heat Recovery system for charge preheating shall be included for 65 T Electric Arc Furnace.
- (xvi) Submerged Arc Furnace and Electric Arc Furnace shall be closed type with 4th hole extraction system.
- (xvii) Acid Recovery Plant (ARP) and acid fume scrubber in stack emission shall be less than 10 mg/Nm³ HCl.
- (xviii) 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.
- (xix) Cold Rolling Mill (CRM), color coating and galvanizing plants shall have CETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to TSDF.
- (xx) The Oil scum and oily waste from CRM shall be sent to registered recyclers for oil recovery and incineration.
- (xxi) Dust emission from Steel Plant stacks shall not exceed 30 mg/Nm³.
- (xxii) Water requirement of 237399 m³/day for the plant shall be met from Tapi River and Effluent Treatment Plant (9,960 m³/day). Ground water abstraction is not permitted.



- (xxiii) As proposed, Project proponent shall explore the possibility to use 75000 KLD treated sewage water from Surat Municipal Corporation to be pumped from Surat to Hazira. Scheme for treated sewage water pumping shall be implemented as submitted in EIA/EMP Report to reduce the water withdrawal from Tapi River.
- (xxiv) Zero Liquid Discharge (ZLD) scheme for the entire complex shall be implemented by March, 2023. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic waste water shall be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression. Sludge disposal plan shall be implemented as submitted in EIA/EMP Report.
- (xxv) As submitted, raw material from Adani port to plant shall be transported through 1.3 Km conveyor along the Surat-Hazira state high way.
- (xxvi) Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- (xxvii) Parking area for trucks/dumpers shall be provided within the steel plant. No truck/dumper shall be parked outside the steel plant premises.
- (xxviii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- (xxix) Three tier Green Belt shall be developed in at least 33% in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- (xxx) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- (xxxi) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have provision of garland drains and catch pits to trap run off material. Action plan submitted in the EIA/EMP Report shall be strictly implemented.
- (xxxii) No parking on road side for any vehicle pertaining to the plant. Proper arrangement for vehicle parking within the plant will be made.
- (xxxiii) Cyclone / disaster management shall be duly implemented as submitted in the EIA report.
- (xxxiv) There is sparse mangrove vegetation. As a CER activity, AMNS shall put full efforts in conserving and improving the mangroves in consultation with District Forest Department.
- (xxxv) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC (Attach at Annexure 1).
- (xxxvi) As committed, PP shall adopt nearby 8 villages namely Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages and develop them into model villages in next 5 years.
- (xxxvii) The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The



implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

- (xxxviii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- (xxxix) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

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

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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



- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

VI. Waste management

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
- iv. The Unit is using quartzite, coal and coke. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

IX. Environment Management

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

X. Miscellaneous

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

9. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

10. Any appeal against this environmental 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.

11. 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

12. This issues with approval of the competent authority.



(Dr. R. B. Lal)
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Encl. as above at Annexure –I

Copy to: -

1. The Principal Secretary, Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
2. The Principal Secretary, Forests Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
4. The PCCF & HOFF, Gujarat State, Block A, 1st Floor, Aranya Bhavan, Opp, St.Xaviers School, Near Ch-3 Circle, Sector-10/A, Gandhinagar.
5. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10 A, Gandhi Nagar-382010
6. The Member Secretary Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
7. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi-110001



9. The Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
10. The District Collector, Surat, Gujarat
11. Guard File/Monitoring File/Parivesh portal/Record File



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Table: Action plan on the issues raised during PH as per MoEF&CC O.M. dated 30/09/2020

CER Budget - Yearly (1-5 yrs.)		2023	2024	2025	2026	2027	Rs. In Crores
S. No.	Major activities	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount
A	Education						
1	STEM Learning Centre in 10 Middle and 5 High Schools	0.3	0.3	0.3	0.3	0.3	1.5
2	Padhega Bharat- Digital Pathashala - (Smart class + Learning apps etc.) – 40 Middle school (Class 6-8)	1	1	1	1	1	5
3	Model Anganwadi – Improvement in basic amenities & teaching learning materials in 20 Anganwadi centres	1	1	1	1	1	5
4	Construction of English Medium School – Building/hall, Computer Lab, Biology Lab, Chemistry Lab	1	1	0.2	0.2	0.1	2.5
5	Improvement in basic amenities, community teachers & teaching learning materials in 10 Primary and 3 secondary School for quality education (Renovation of School, Toilet Block, Computer Lab & other work)	1	0.5	0.5	0.5	0.5	3
6	Beti padhao Scholarship Program for Girls students	1	2	2	2.5	2.5	10
	Sub Total	5.3	5.8	5	5.5	5.4	27
B	Health & Sanitation						
1	Strengthening/Renovation of the Government Health Centres. [PHC, CHC & Medical Sub-centres]	0.75	0.5	0.5	0.5	0.5	2.75
2	Setting up Hospital Facility for Local People in partnership with Notified Authorities	2	0.1	0.1	0.1	0.1	2.4
3	Mobile Medical Unit for free treatment and medicine support to community	0.5	0.3	0.35	0.35	0.35	1.85
4	Artificial limb camp for People with physical disability	0.5	0.5	0.5	0.5	0.5	2.5
5	Eye check-up camp (for truck drivers, School childrens, Elder & other peoples)	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	4.25	1.9	1.95	1.95	1.95	12
C	Infrastructure Development						
1	Solar Street light 1800 nos.	0.5	0.75	0.75	0.75	0.75	3.5
2	Construction of Community Centre in Hazira, Vanesa, Rajbari & Dumka villages	0.5	0.5	0.5	0.5	0.5	2.5
3	Construction and repair of drainage system in Hazira with Panchayat-Hazira to avoid water logging	0.5	0.5	0.5	0.5	0.5	2.5
4	Repair and Renovation of the Internal Road in Hazira Village and other need-based community support	0.6	0.6	0.6	0.6	0.6	3
5	Infrastructure development in villages (Crematorium, Bus stop, community park, recreation centre etc.)	0.5	0.5	0.5	0.5	0.5	2.5
6	Drinking Water pipeline installation and maintenance work at Hazira Village	1	1	1	1	1	5
7	Overhead water tank construction work in Hazira, Damka, Vansva & other Villages	0.4	0.4	0.4	0.4	0.4	2
	Sub Total	4	4.25	4.25	4.25	4.25	21
D	Sustainable Livelihood						
1	Vocational Skill Training centre for unemployed 600 youths- in partnership with NSDC.	0.5	0.5	0.5	0.5	0.5	2.5

CER Budget - Yearly (1-5 yrs.)		2023	2024	2025	2026	2027	Rs. In Crores
S. No.	Major activities	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount
2	Natural Resource Management project (Farm and Non based income generation activities, livestock & watershed work) Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages	1	1	1	1	1	5
3	Fishing net and fishing tool to fishing community of Hazira Village	0.5	0.5	0.5	0.5	0.5	2.5
4	Lok Vikas Kendra- Tailoring Machine Support to SHGs for Livelihood Activity Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	2.5	2.5	2.5	2.5	2.5	12.5
E	Sports and Youth Development						
1	Development of Playground for nurturing local talents for sports at Hazira, Mora, Damka, Junagam, Suwali, Bhatlai, Rajgari & Vansva Panchayat	0.5	0.5	0.5	0.5	0.5	2.5
2	Cricket Ground & running track construction work at Damka, Hazira & other near by Villages	1	1	1	1	1	5
3	Sport Material & Equipment support to the schools at Hazira, Damka & Junagam	0.25	0.25	0.25	0.25	0.25	1.25
5	Sport Promotion - High Performance Center (HPC)- Coaching, Training, Exposure to potential sportsperson	3	3	3	3	3	15
4	Provision of necessary equipment and infrastructure support for sports activities	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	5.25	5.25	5.25	5.25	5.25	26.25
F	Environment						
1	Tree Plantation and Greening Drive-in villages and School Premise	0.25	0.25	0.25	0.25	0.25	1.25
2	Installation and promotions of solar energy in partnership with GEDA (Gujrat Energy development Agencies) solar roof top energy, solar water pump etc.	0.5	0.5	0	0	0	1
3	Mangrove conservation Project for Hazira, Suwali & Damka villages	0.5	0.5	0.5	0.5	0.5	2.5
4	Setting up Paper and Solid / Plastic waste recycling unit	0.5	0.5	0	0	0	1
	Sub Total	1.75	1.75	0.75	0.75	0.75	5.75
G	Others						
1	Model Village Development Project in 8 villages	6	6	7	7	7	33
2	Relief measure during natural calamity, pandemic etc. and support to differently abled child	0.4	0.4	0.4	0.4	0.4	2
3	Impact Assessment and monitoring of activities	0.1	0.1	0.1	0.1	0.1	0.5
	Sub Total	6.5	6.5	7.5	7.5	7.5	35.5
	Grand Total	29.55	27.95	27.2	27.7	27.6	140