



सत्यमेव जयते

File No.: J-11011/868/2008-IA-II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division

\*\*\*



Dated 20/05/2025



To,

M/s. JINDAL SAW LIMITED  
jindal centre, 12 bhikaiji cama place, new delji, NEW DELHI, DELHI, 110066  
Email: jindalsaw001@gmail.com

**Subject:** Amalgamation of DI pipe facilities- ECs issued by MOEF and SEIAA by M/s Jindal Saw Limited, located at Village: Samaghogha, Taluk: Mundra, District: Kutch, Gujarat –**Amendment in Environmental Clearance– regarding.**

**Sir/Madam,**

This refers to your proposal no. IA/GJ/IND1/510273/2024 dated 30.11.2024 along with copy of Addendum EIA report seeking amalgamation of EC's as per the EIA Notification, 2006. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (Ferrous & Nonferrous) under Category 'A' of the schedule of the EIA Notification, 2006 and being appraised at the Central Level.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A1005GJ5212927A
(ii) File No.	J-11011/868/2008-IA-II(I)
(iii) Clearance Type	Amendment in EC
(iv) Category	A
(v) Schedule No./ Project Activity	3(a) Metallurgical Industries (ferrous and non ferrous)
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	AMALGAMATION OF DI PIPE FACILITIES- ECs ISSUED BY MOEF AND SEIAA TO M/S JINDAL SAW LIMITED, LOCATED AT SAMAGHOGHA VILLAGE, MUNDRA TALUK , KUTCH DISTRICT, GUJARAT STATE
(viii) Location of Project (District, State)	KACHCHH, GUJARAT
(ix) Issuing Authority	MoEF&CC
(x) EC Date	26/11/2009
(xi) Applicability of General Conditions	NO
(xiii) Status of implementation of the project	

3. The proposal cited above was considered the 70th meeting of the EAC for Industry-I sector held on 5th – 6th December, 2024 and 1st EAC (Industry-1) Meeting - 3rd, 4th & 7th April, 2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

#### **Details submitted by the project proponent**

4. The project obtained Environmental Clearance from MoEF&CC vide File No. J11011/868/2008-IA-II (I), dated 26th November, 2009 for expansion involving the Blast Furnace (BF) capacity from 0.25 MTPA to 0.30 MTPA, setting up a new Mini Blast Furnace (0.28 MTPA), a Steel Melting Shop with an Energy Optimizing Furnace (EOF-1x35 TPH), Ladle Refining Furnace (LRU-1x35 TPH), Vacuum Degasser Unit (VDU-1x35 TPH), and Continuous Caster Machine (CCM-1x35 TPH) to achieve a total billet production of 0.28 MTPA, along with a new Air Separation Unit (110 TPD) and a 4 MW Captive Power Plant (CPP) based on BF gas. The EC also approved the extension of the project area from 90.06 ha (225 acres) to 126.32 ha (312.14 acres). Further, the PP obtained EC from SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/3(a)/122/2011, dated 23rd June, 2011 for establishing a 0.225 MTPA Small Diameter Pipe (SDP) plant within the existing project area of 126.32 ha. Currently, the plant manufactures Ductile Iron (DI) pipes under the Combined Consent and Authorization (CTO No. AWH-120573) issued on 2nd August, 2022, valid until 10th May, 2026.

5. The instant proposal is for seeking amalgamation of ECs issued from MoEFCC dated 26.11.2009 & SEIAA dated 23.06.2011 granted in the name of M/s. Jindal Saw Limited. This will allow PP for expansion of DI Pipe facilities in future to utilize the hot metal from the existing furnace.

6. Reasons for Amalgamation of ECs: The proposed amalgamation of Environmental Clearances (ECs) issued by MoEF&CC in 2009 and SEIAA, Gujarat, in 2011 is aimed at integrating the DI Pipe facilities under a unified EC. This would enable M/s Jindal SAW Limited to streamline operations and facilitate the future expansion of DI Pipe production by utilizing hot metal from the existing furnace more efficiently.

7. The matrix of changes after the proposed amalgamation of the project is at Annexure-II

8. The unit configuration and capacity after the amalgamation is at Annexure-III

9. The consolidated EC condition after amalgamation of both project after amalgamation of the project is at Annexure IV.

10. The compliance on implementation of issues raised in PH post amalgamation of the project is at Annexure-V

11. It is reported that there is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

12. The proposal was considered during 70th meeting EAC for Industry-I sector held on 5th – 6th December, 2024 wherein after detailed deliberation, the Committee recommended the proposal for amalgamation of Environment Clearances. While processing the file in accordance with EAC recommendations, the Authority in the Ministry made certain observations and resubmitted it to the EAC for further consideration.

#### **Deliberations by the Committee (1st EAC (Industry-1) Meeting - 3rd, 4th & 7th April, 2025)**

13. The Committee noted the following:

i. The project obtained Environmental Clearance from MoEF&CC vide File No. J11011/868/2008-IA-II (I), dated 26th November, 2009 for expansion involving the Blast Furnace (BF) capacity from 0.25 MTPA to 0.30 MTPA, setting up a new Mini Blast Furnace (0.28 MTPA), a Steel Melting Shop with an Energy Optimizing Furnace (EOF-1x35 TPH), Ladle Refining Furnace (LRU-1x35 TPH), Vacuum Degasser Unit (VDU-1x35 TPH), and Continuous Caster Machine (CCM-1x35 TPH) to achieve a total billet production of 0.28 MTPA, along with a new Air Separation Unit (110 TPD) and a 4 MW Captive Power Plant (CPP) based on BF gas. The EC also approved the extension of the project area from 90.06 ha (225 acres) to 126.32 ha (312.14 acres). Further, the PP obtained EC from SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/3(a)/122/2011, dated 23rd June, 2011 for establishing a 0.225 MTPA Small Diameter Pipe (SDP) plant within the existing project area of 126.32 ha. Currently, the plant manufactures Ductile Iron (DI) pipes under the Combined Consent and Authorization (CTO No. AWH-120573) issued on 2nd August, 2022, valid until 10th May, 2026.

ii. The instant proposal is for seeking amalgamation of ECs issued from MoEFCC dated 26.11.2009 & SEIAA dated

23.06.2011 granted in the name of M/s. Jindal Saw Limited.

iii. The PP has clarified that the proposed amalgamation of Environmental Clearances (ECs) issued by MoEF&CC in 2009 and SEIAA, Gujarat, in 2011 is aimed at integrating the DI Pipe facilities under a unified EC. This would enable M/s Jindal SAW Limited to streamline operations and facilitate the future expansion of DI Pipe production by utilizing hot metal from the existing furnace more efficiently.

iv. The EAC reviewed all the proposed changes due to amalgamation of both the ECs including unit configuration and capacity, matrix of associated changes in the parameters (such as location, land details raw material, water and power requirement etc.), consolidated EC conditions, consolidated EMP etc. and found them satisfactory.

v. The EAC suggested that the amalgamated EC shall incorporate all the consolidated details from the ECs of both entities, as provided by the project proponent and as stated in the existing ECs. There shall be no changes or modifications to the terms and conditions of the ECs for both entities, as applicable.

vi. The PP is also advised to make public the amalgamated environmental clearance granted along with the environmental conditions and safeguards, PH commitments 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.

vii. The EAC noted that the Authority in MOEF&CC had highlighted the issues related to development of greenbelt, implementation status of ECs vis-à-vis instant amalgamation proposal, and accordingly, the conditions are modified/ included in amalgamated set of EC conditions to reflect to reflect the factual position. Further, the Competent Authority referred back the matter to EAC for deliberations on the CCR of ECs dated 26.11.2009 and 23.06.2011, along with review and examination of ATR (in light of the latest observations of concerned IRO). The EAC deliberated on the status of partially complied conditions, and considered the written submission, and accordingly, made its recommendations. The table of partially complied and non-complied EC conditions vis-a-vis the commitments made by PP are as mentioned below:

S.No	EC condition no.	EC condition	Observation from IRO, MOEF&CC, Gandhinagar dated 16.01.2025	Current Status by EAC recommendations PP as on 7.4.2025 on EAC meeting held on 7.4.2025
1	iii EC letter No. F. No. 11011/73/2004-IA II(I); Dated: 21st October 2004	The blast furnace gas shall be cleaned in the dry gas cleaning plant J-connected with dust collectors and two stage wet scrubbers. The dust free gas having particulate matter less than 10mg/NM3 shall be reused in stove and steam boiler. The spent gas shall be let out through the stacks of appropriate height.	Industry has installed a dry de-dusting system, claiming it is eco-friendly, saves 130-140 m <sup>3</sup> /day of water, and utilizes 100% reissued wet dust in the sinter plant. While the system where the dust plant. The environmental emission norms is 50mg/Nm <sup>3</sup> . As per that the fume extraction system at the discharge point of the blast furnace, is still to be complied. The use of clean BF gas emission level of <50mg/Nm <sup>3</sup> for installation of a fume extraction system at the discharge point of blast furnace. It noted that PP has ordered the same, which is expected to be received and installed by April 15 and July 31,	The committee noted ECPPs submissions on dry de-dusting system granted in 2004 de-dusting system has been installed by PP in light of clarification issued year of 2009 for expansion vide letter dated 02-07-2008 by MoEF&CC. However, it observed that the fume extraction system at the discharge point of the blast furnace, is still to be complied. EAC also noted PP's submission for installation of a fume extraction system at the discharge point of blast furnace. It noted that PP has ordered the same, which is expected to be received and installed by April 15 and July 31,

assured that there will be dusting system 2025, respectively. proposed installation of a place of wet. Further, till such time the extraction system during scrubber system. fugitive emissions the next annual. As advised by the monitoring system is maintenance period is a RO MOEF&CC, installed and stabilised, positive step, supported Gandhinagar, the PP shall monitor fugitive by earmarked funds and Fume extraction emissions by third party an undertaking. However, system at the monitoring agency interim measures to discharge point of accredited by control fugitive emissions blast furnace has MoEF&CC/ NABL on are necessary. been ordered which monthly basis and In view of the above is expected to be monitoring reports to be information furnished by received by April submitted to IRO, CPCB the PP and as per the 15, 2025 and will and SPCB along with six records submitted to this be installed by July monthly compliance office, the stipulated 31, 2025. reports. condition is left open for The fugitive. In view of the above, the discussion before EAC. emission are EAC recommend the maintained well proposal. within the norms and report is being submitted to SPCB and IRO MOEF&CC Gandhinagar on six monthly basis. Plant will be under shutdown from 8<sup>th</sup> April, 2025 to 31<sup>st</sup> July, 2025 or till the annual maintenance and installation of fume extraction system at Blast furnace discharge point completed.

- 2 Condition No. 4 Gas Cleaning Plant, The installation of a dry As advised by the The committee noted EC letter No. letter no. Multi-Cyclone, bag dusting system (DDS) IRO MOEF&CC, PPs submissions on DDS F. No. J-11011/ 868/house, wet ventury instead of the gas cleaning Gandhinagar, their light of clarification 2008-IA II(I); Dated: scrubber, fume plant (GCP), cyclones, Fume extraction issued vide letter dated 26th November 2009 extraction system etc. bag filters, and ESPs is a system at the 02-07-2008 by will be provided to deviation from the discharge point of MoEF&CC. However, it control emissions stipulated requirements. blast furnace has observed that the fume within 50 mg / Nm<sup>3</sup>. While the DDS is eco-been ordered which extraction system at the Existing and proposed friendly, saves 130-140 is expected to be discharge point of the water consumption is m<sup>3</sup>/day of water, and uses received by April blast furnace is still to be 4.0 MLD and 5 MLD dry dust as raw material in 15, 2025 and will be complied. respectively and the sinter plant, its be installed by July PP submitted to install permission is operation lacks formal 31, 2025. fume extraction system available for 9,500 approval through an EC The fugitive at the discharge point of KLD (9.5 MLD) water amendment. emission are blast furnace. The same from Gujarat Water Water management maintained well has been ordered and

Infrastructure Limited practices are within the norms expected to be received (GWIL). 300 M<sup>3</sup> /commendable, with and report is being and installed by April 15 day ground water will permissions for 4 MLD submitted to SPCB and July 31, 2025, also be used. All the from GWIL and 1,100 and IRO respectively. treated waste water m<sup>3</sup>/day from CGWA, MOEF&CC Further, till such time the will be alongside the operation of Gandhinagar on six fugitive emissions recycled/reused within a 2 MLD sewage monthly basis. monitoring system is the plant and no waste treatment plant for Plant will be under installed and stabilised, water will be recycling wastewater, shutdown from 8<sup>th</sup> PP shall monitor fugitive discharged outside the achieving zero discharge April, 2025 to 31<sup>st</sup> emissions by third party plant premises. The status. Granulated blast July, 2025 or till the monitoring agency granulated blast furnace slag and iron-rich annual maintenance accredited by furnace slag will be dust are effectively reused and installation of MoEF&CC/ NABL on given to cement or sold, aligning with fume extraction monthly basis and makers. Iron rich dust, sustainable practices. system at Blast monitoring reports to be scales and sludge will However, the absence of a furnace discharges submitted to IRO, CPCB be reused in the sinter functional fume extraction point completed. and SPCB along with six plant. SMS slag after system for controlling monthly compliance metal recovery and fugitive emissions reports. waste refractory will remain a critical non-compliance. In view of the above, the be suitably disposed. compliance. The Project EAC recommend the Green belt will be Proponent has assured to developed in 75 acres install this system during (33 %), out of total the next maintenance 226 acres. period and its financial commitment is noted, but interim measures should be implemented immediately.

While green belt development and plantation efforts exceed the 33% requirement, continuous monitoring and timely execution of the action plan are necessary to ensure full compliance.

In view of the above information furnished, the records submitted to this office and commitment made by the PP, the stipulated condition is agreed to comply by the project proponent.

- 3 Specific Condition no. Blast furnace top gas The unit has installed a As advised by the The EAC took note of iv shall be cleaned in multi cyclone and bag IRO MOEF&CC, partial compliance with EC letter No. letter no. multi -cyclone and house (dry dedusting Gandhinagar, the BF gas treatment related F. No. J-11011/ 868/bag house. Flue gas system) to clean blast Fume extraction to absence of a system to 2008-IA II(I); Dated: from Energy furnace (BF) top gas, system at the capture fugitive 26th November 2009 Optimizing Furnace which complies with part discharge point of emissions.

(EOF) shall be treated of the EC conditions. blast furnace has. Further, the SMS section in gas cleaning plant. However, the absence of a been ordered which (including EOF and comprising of cyclone suction hood for material is expected to be LRF) are not followed by wet discharge from the BF received by April implemented, and ventury scrubber and results in fugitive 15, 2025 and will accordingly, related clean gas shall be emissions escaping into be installed by July requirements are not discharged through the atmosphere, indicating 31, 2025. applicable at this stage. stack of adequate partial non-compliance. The fugitive PP submitted to install height as per CPCB. While the company emission are fume extraction system guidelines. Fume claims fugitive emissions maintained well at the discharge point of extraction system with are within permissible within the norms blast furnace. The same bag filters shall be limits, this needs to be and report is being has been ordered and provided to ladle verified through submitted to SPCB expected to be received refining furnace monitoring data. and IRO and installed by April 15 (LRF). The SPM The flue gas treatment MOEF & CC and July 31, 2025, emissions from all the system for the Energy Gandhinagar on six respectively. sourced shall be Optimizing Furnace monthly basis. The committee controlled within 50 (EOF) and the fume Plant will be under recommended that the mg/ Nm<sup>3</sup>. extraction system for the shutdown from 8<sup>th</sup> PP needs to monitor the Ladle Refining Furnace April, 2025 to 31<sup>st</sup> actual fugitive emissions (LRF) are not applicable July, 2025 or till the through third-party as the Secondary annual maintenance monitoring, till the fume Metallurgical Section and installation of extraction system is (SMS) project has not fume extraction installed by July 2025. A been implemented. system at Blast compliance of the same. The company's action furnace discharge may be submitted to plan to install a fume point completed. concerned RO MoEFCC. extraction system during the next annual maintenance period is noted, and funds have been earmarked for this purpose. However, interim measures to minimize fugitive emissions are necessary to avoid further environmental impact. The use of BF gas through proper pipelines for consumption without direct atmospheric discharge is a positive aspect. To ensure compliance, it is recommended to monitor emissions regularly, expedite the installation of the extraction system, and update the EC amendment application accordingly. In view of the above information furnished, the records submitted to this

office and commitment made by the PP, the stipulated condition is left open for discussion with EAC.

- 4 Specific Condition no. Secondary fugitive The unit has implemented As advised by the The EAC recognizes the v emissions from blast several measures to IRO MOEF&CC, company's efforts viz., EC letter No. letter no. furnace shall be control fugitive emissions, Gandhinagar, the dry fogging, fiber F. No. J-11011/ 868/ controlled within the including a dry de-dusting Fume extraction curtains, covered 2008-IA II(I); Dated: latest permissible system (DDS) with a bag system at the conveyors to reduce 26th November 2009 limits issued by the house for blast furnace discharge point of fugitive emissions. ministry and regularly (BF) operations. Clean blast furnace has However, the absence of monitored. Guidelines gas from DDS is utilized been ordered which a dedicated system for / Code of practice effectively as fuel in is expected to be secondary emissions issued in this regard various units, and received by April from the blast furnace is by the CPCB should additional de-dusting 15, 2025 and will a concern. also be followed. systems have been be installed by July PP submitted installed in the raw 31, 2025. commitment that the material handling system The fugitive fume extraction system (RMHS). These step emission area at the discharge point of contribute to reducing maintained well blast furnace has been emissions. within the norms ordered which is However, there is no and report is being expected to be received dedicated provision for submitted to SPCB by April 15, 2025 and controlling secondary and IRO will be installed by July fugitive emissions from MOEF&CC 31, 2025. The Plant will the BF itself. Gandhinagar on six be under shutdown till The action plan to monthly basis. 31<sup>st</sup> July, 2025 or till the strengthen measures for Plant will be under annual maintenance and fugitive emission control shutdown from 8<sup>th</sup> installation of fume is acknowledged, April, 2025 to 31<sup>st</sup> extraction system at supported by an July, 2025 or till the Blast furnace discharge undertaking and steps annual maintenance point completed. such as water spraying, and installation of In view of the action dry fogging systems, fiber fume extraction plan and committed curtains, and covered system at Blast timelines, the EAC conveyors. These efforts furnace discharge recommends conditional are commendable and point completed. acceptance with a align with CPCB directive to expedite guidelines, though further control measures and enhancements are required for full provide post-installation compliance. Monitoring verification. data indicates that The PP shall also emissions are within fugitive emissions by third party permissible limits, and monitoring agency regular reports are accredited by submitted to the Gujarat MoEF&CC/NABL on Pollution Control Board monthly basis and (GPCB). monitoring reports to be submitted to IRO, CPCB and SPCB along with six

secondary fugitive emissions at the BF remains a gap. It is recommended to expedite the installation of the proposed measures, verify monitoring data during inspections, and ensure adherence to Ministry and CPCB standards.

monthly compliance reports.

In view of the above information furnished by the PP and as per the records submitted to this office, the stipulated condition is left open for discussion with EAC

- 5 Specific Condition no. Vehicular pollution Partially Compliance : Fiber Curtains have been installed and that the compliance is largely achieved by PP EC letter No. letter no. of raw material and construction of concrete ongoing largely achieved by PP F. No. J-11011/ 868/ finished product shall roads for transportation, infrastructure which with fiber curtains 2008-IA II(I); Dated: be controlled. Proper the use of road sweeping include repair of installed and RCC road 26th November 2009 arrangements should machines to minimize RCC roads and repairs completed as of also be made to dust emissions, and drains improvement February 2025. control dust emissions ensuring all vehicles work has been The EAC recommended during loading and operating within the plant completed in that the condition may unloading product possess valid Pollution February 2025. be considered as Vehicular emissions Under Control (PUC) shall be regularly certificates, which are complied with, in light of the photographs and documents submitted by monitored and records regularly renewed. PP.
- However, the absence of RCC roads near the material feeding area and insufficient control measures, such as fiber curtains, contribute to fugitive emissions during loading and unloading activities. The ongoing maintenance and repair of RCC roads and drains, as observed during the site visit, are noted, and the commitment to complete this work after the rainy season is a positive development.
- The action plan to install fiber curtains and ensure proper infrastructure improvements is satisfactory but requires

timely implementation. Continuous monitoring of vehicular emissions and strict adherence to the action plan are recommended to achieve full compliance. Follow-up inspections and submission of completion evidence for RCC road repairs and curtain installations are necessary to validate progress.

In view of the above information furnished, the records submitted to this office and commitment made by the PP, the stipulated condition is agreed to comply by the project proponent.

6 Specific Condition no. In-plant control Partially Compliance: As suggested by The EAC noted the dust vii measures for The company has made IRO, MOEF & CC, suppression systems EC letter No. letter no. controlling fugitive significant efforts to Gandhinagar the installed, including bag F. No. J-11011/ 868/emissions from control fugitive emissions frequency off filters in the coal mill, 2008-IA II(I); Dated: spillage / raw from raw material existing fugitive dry fogging at hoppers, 26th November 2009 materials handling handling, but there were emission control wind barriers, and shall be provided. certain shortfalls. Positive measures has been regular monitoring. Fugitive dust measures include the strengthen which The EAC also noted the emissions from raw installation of a dry includes Rain gun shortcomings identified material handling fogging system with air RHHS, Dry fog by IRO during the site system shall be curtains at the blast system with curtain visit have been minimized by using furnace ground hoppers, at ground hopper, addressed. dry fogging system, raw material transfer water sprinkling on The committee noted air curtains and water points, and conveyor road, replacement PPs submissions on dry sprinkling system. junctions. The covering of of bags of the bag de-dusting system Fugitive emissions all conveyor belts and the filter at material installed by PP in light from raw material use of fixed rain guns for transfer point and of clarification issued transfer points and water sprinkling at the vacuum sweeping vide letter dated 02-07- junction point of raw material stock yard of all concrete road 2008 by MoEFCC. conveyer shall be further help mitigate has been However, it observed controlled by fugitive dust emissions. A completed. that the fume extraction providing bag house. 9-meter wind-breaking Third party system at the discharge Coal mill shall be wall and the use of monitoring has point of the blast furnace installed provided mechanized loaders in the been carried out is still to be complied. with bag filters to raw material yard area and accordingly the EAC also noted PP's reduce coal dust additional measures fugitive and stack submission for pollution. De-dusting aimed at controlling emission are well installation of a fume system shall be emissions. within the extraction system at the installed at stock In terms of coal dust prescribed norms. discharge point of blast house. Data on control, the installation of furnace. It noted that PP fugitive emissions a bag filter system in the has ordered the same,

shall be regularly PCI unit for the coal mill monitored and records noted, as well as a bag maintained.

house in the raw material handling system (RMHS) to control dust emissions at the stock house. These actions contribute to reducing environmental impact.

However, despite these measures, few shortcoming were there at the site for which action plan has been submitted.

It is recommended that the company continue its efforts to install any remaining required systems and ensure the full implementation of the action plan to achieve compliance. A follow-up inspection and verification of the ongoing monitoring reports will be essential for confirming progress

which is expected to be received and installed by April 15 and July 31, 2025, respectively.

Further, till such time the fugitive emissions monitoring system is installed and stabilised, PP shall monitor fugitive emissions by third party monitoring agency accredited by MoEF&CC/ NABL on monthly basis and monitoring reports to be submitted to IRO, CPCB and SPCB along with six monthly compliance reports.

In view of the above, the EAC recommend the proposal

#### **Recommendations of the Committee**

14. After deliberations, the Committee recommended the proposal subject to uploading of written submission on Parivesh Portal for amalgamation of Environment Clearances (covering EC conditions) issued from MoEFCC dated 26.11.2009 & SEIAA dated 23.06.2011 in the name of M/s. Jindal Saw Limited as detailed in relevant Para above. The EAC categorically noted that the recommendation to grant amalgamation of EC is technical in nature under the provisions of the EIA Notification 2006, and PP is required to secure all the permissions/ approvals/ consents from Central/ State Authorities, as may be required. The additional conditions are mentioned below:

(i) The Amalgamated EC will carry all the consolidated details and conditions from both the ECs of both entities, as stated in the existing ECs. There shall be no changes or modifications to the terms and conditions of the ECs for both entities, as applicable.

(ii) The PP is also advised to make public the amalgamated environmental clearance granted along with the environmental conditions and safeguards, PH commitments 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.

(iii) The amalgamated EC will be valid only in respect of the components implemented during the validity period of ECs dated 26.11.2009 and 23.06.2011 respectively. PP shall not construe the grant of amalgamated EC as a fresh EC to install and commission previously unimplemented units.

15. 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 amalgamation of Environment Clearances issued from MoEFCC dated 26.11.2009 & SEIAA dated 23.06.2011 in the name of M/s. Jindal Saw Limited as detailed in relevant para above under the provisions of EIA Notification, 2006. **The PP shall be required to submit an updated status of the actions completed in line with its commitments made, as per the Table mentioned above, to the concerned RO MoEFCC as recommended by EAC.**

16. 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.

17. 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.

18. This issues with approval of the competent authority.

Dinesh Runiwal  
Scientist 'F'/ Director  
Tel:011- 20819346  
Email: d.runiwal@gov.in

### **Copy To**

2. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
3. The Principal Chief Conservator of Forests & Government of Gujarat, Dr. Jivraj Mehta Bhawan, Block No. 14 Old Sachivalaya, Ist Floor, Gandhinagar-382010
4. The Deputy Director General of Forests (C), Integrated Regional Office(IRO), Ministry of Environment, Forest and Climate Change, Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector 10A, Gandhinagar, Gujarat – 382010
5. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032
6. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, Gandhinagar, Gujarat – 382043
7. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
8. The District Collector, District Kutch, Gujarat
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. Guard File/Monitoring File/Record File/ Parivesh Portal

Dinesh Runiwal  
Scientist 'F'/ Director

### **Annexure 1**

#### **Specific EC Conditions for (Metallurgical Industries (Ferrous And Non Ferrous))**

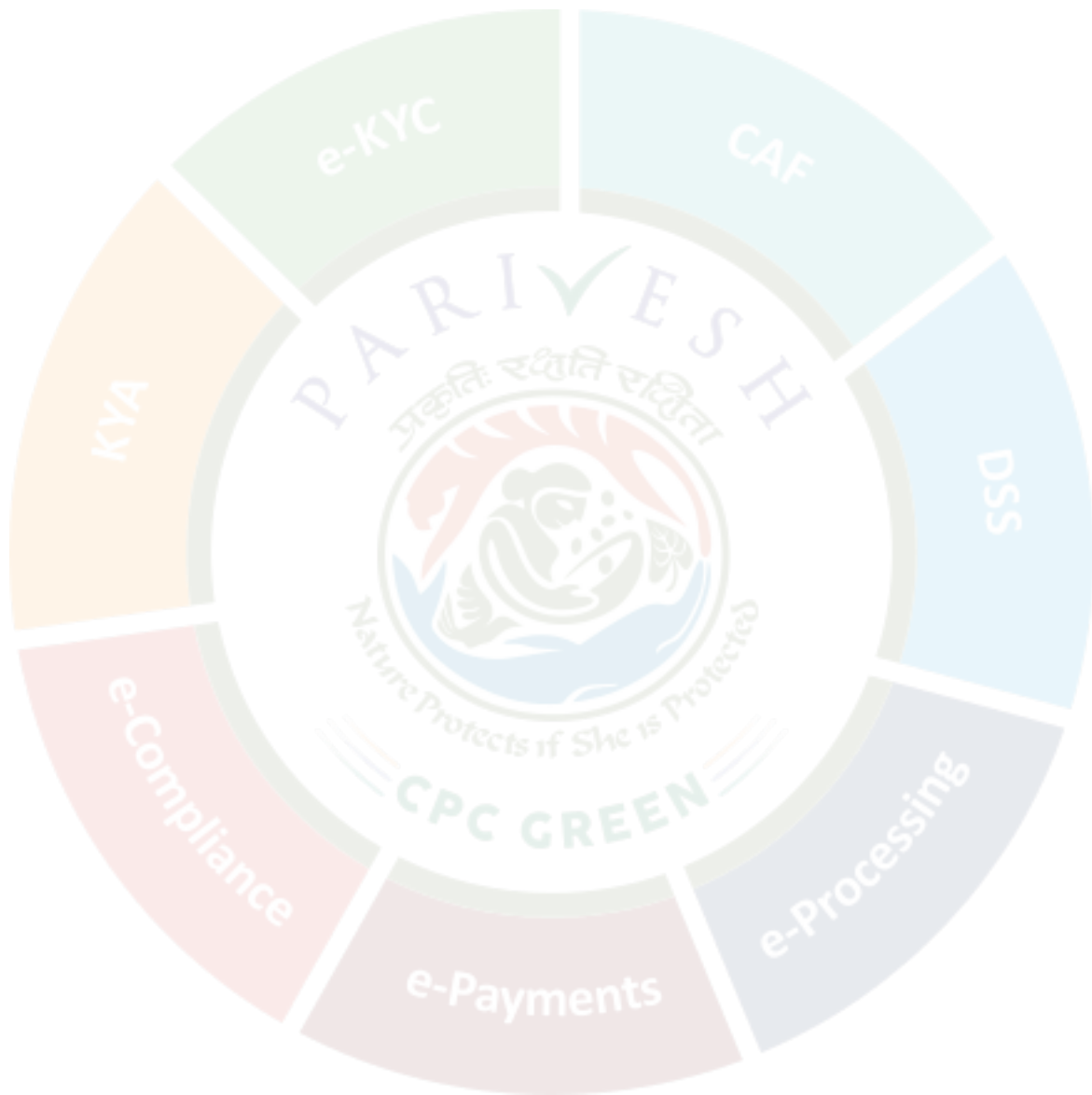
#### **1. Specific**

<b>S. No</b>	<b>EC Conditions</b>
<b>1.1</b>	The Amalgamated EC will carry all the consolidated details and conditions from both the ECs of both entities, as stated in the existing ECs. There shall be no changes or modifications to the terms and conditions of the ECs for both entities, as applicable.
<b>1.2</b>	The PP is also advised to make public the amalgamated environmental clearance granted along with the environmental conditions and safeguards, PH commitments 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

S. No	EC Conditions
	vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
1.3	The amalgamated EC will be valid only in respect of the components implemented during the validity period of ECs dated 26.11.2009 and 23.06.2011 respectively. PP shall not construe the grant of amalgamated EC as a fresh EC to install and commission previously unimplemented units.

**Additional EC Conditions**

NA



## Annexure II

The matrix of changes after the proposed amalgamation will be as follows:

S.No	Particulars	Details			
1	Location	Samagogha Village Mundra Taluka Kutch District Gujarat			
2	Total land	126.32 Ha (Private land)			
		Sl. No.	Land use Description	Existing area (Acres)	Existing area (Ha)
		1.	Total shed/Construction area	89.99	36.42
		2.	Existing Green belt area	95.16	38.51
		3.	Road, Drain, Pipe Storage yard	126.99	51.39
			<b>Total</b>	<b>312.14</b>	<b>126.32</b>
3	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land is fully acquired The existing and proposed project is located at Survey Nos. 286, 287, 288/1, 288/3, 292, 293, 294/1, 294/2, 295, 296/1, 296/2, 297, 298, 300, 301, 316/2, 317, 318, 319, 320, 321, 322, 323, 324, 325/1, 325/2, 326, 301, 316/1, 316/2, 325/1, 325/2, 334/1, 335, 336/1, 336/2, 336/3, 337, 339/1, 369/1, 713/17, 713/52, and 713/53			
4	Possession details	Total land in possession of management			
5	Latitude and Longitude of all corners of the project site.		<b>Longitude</b>	<b>Latitude</b>	
		1	69.65701374	22.89377312	
		2	69.65736752	22.89291844	
		3	69.65785023	22.89222665	
		4	69.65803319	22.89201317	
		5	69.65853268	22.89163333	
		6	69.65854722	22.8916181	
		7	69.65860649	22.89163164	
		8	69.65950421	22.89190944	
		9	69.65966721	22.89200193	
		10	69.66026635	22.89243721	
		11	69.6603388	22.8924574	
		12	69.66074615	22.8924526	
		13	69.66066253	22.89214207	
		14	69.66056485	22.89173928	
		15	69.66057286	22.89141863	
		16	69.66138024	22.89160088	
		17	69.66145208	22.89160692	

S.No	Particulars	Details		
		18	69.66156363	22.89162594
		19	69.66169038	22.88953547
		20	69.66167514	22.88942751
		21	69.66112373	22.88920477
		22	69.66110978	22.88869013
		23	69.66135437	22.88839574
		24	69.66183627	22.8878252
		25	69.66208587	22.88752669
		26	69.66236031	22.88625668
		27	69.66271184	22.88637889
		28	69.66308063	22.88649627
		29	69.66517534	22.88730611
		30	69.66686241	22.88766331
		31	69.66707784	22.88772023
		32	69.66704019	22.88822957
		33	69.66806459	22.8883314
		34	69.66821788	22.89013034
		35	69.66813327	22.89041314
		36	69.66814947	22.89053403
		37	69.66806876	22.89084173
		38	69.66811296	22.89097607
		39	69.66934597	22.89075201
		40	69.67125635	22.89031545
		41	69.67211598	22.8900911
		42	69.67244755	22.89043996
		43	69.67252564	22.89056567
		44	69.67403579	22.892281
		45	69.67193158	22.89380517
		46	69.66958794	22.89501811
		47	69.6693863	22.89509667
		48	69.66807779	22.89598248
		49	69.6679655	22.8960948
		50	69.66790137	22.89622373
		51	69.66752179	22.89670015
		52	69.667446	22.89682808
		53	69.66735858	22.89695928
		54	69.66596987	22.89657414
		55	69.66581102	22.89633009
		56	69.66579547	22.89631725
		57	69.66565597	22.8963132
		58	69.66473566	22.89607396
		59	69.66462966	22.89604216
		60	69.66455965	22.89607797
		61	69.66446111	22.8961312
		62	69.66432423	22.89621855

S.No	Particulars	Details				
		63	69.66331234	22.89680976		
		64	69.66336337	22.89685536		
		65	69.66424088	22.8971307		
		66	69.66390614	22.89802642		
		67	69.6637572	22.89799987		
		68	69.66313399	22.89788056		
		69	69.66290678	22.89791359		
		70	69.66283795	22.89830551		
		71	69.66207367	22.89754245		
		72	69.6619364	22.89740982		
		73	69.66159785	22.89701965		
		74	69.66129707	22.89672777		
		75	69.66064527	22.89613456		
		76	69.66024229	22.89583585		
		77	69.65981555	22.89551721		
		78	69.65889625	22.89737895		
		79	69.65791291	22.89687199		
		80	69.65867453	22.89489427		
		81	69.65733669	22.89438371		
		82	69.65710458	22.89421776		
		83	69.65709374	22.89418728		
		84	69.65706531	22.89411508		
		85	69.65701374	22.89377312		
6	Raw Materials		<b>Existing Requirement</b>	<b>Source</b>	<b>Mode of transport</b>	<b>Approx. Distance</b>
		<b>Sinter Plant-1</b>	<b>518400 MT/Annum</b>			
		Iron Ore Fines MT	368064	Goa, Hospet, Bellary, Orissa	By ship to Mundra & then By Road	500 km by road
		Lime stones Fines MT	62800	Gotan (Gujarat), Rajasthan	By Road	500 kms
		Dolomite fines MT	36288	-do-	-do-	-do-
		Coke fines MT	38880	In house	-	-
		Mill Scale MT	15552	Local	By Road	500 kms

S.No	Particulars	Details				
	Quick Lime MT	-	Rajasthan	By road	By 500kms	
	<b>Sinter Plant-2</b>	<b>518400 MT/Annum</b>				
	Iron Ore Fines MT	368064	Goa, Hospet, Bellary, Orissa	By ship to Mundra & then By Road	20 km by road	
	Lime stones Fines MT	75168	Gotan(Gujarat) , Rajasthan	By Road	500 kms	
	Dolomite fines MT	33696	-do-	-do-	-do-	
	Coke fines MT	41472	Nearby own coke oven of Pragpar	By road	05 kms	
	Mill Scale MT	15552	Local	By Road	500 kms	
	Quick Lime MT	-	Rajasthan	By road	By 500kms	
	<b>Blast Furnace -1</b>	<b>300000 MT/Annum</b>				
	Sinter Product MT	405600	In house	-	-	
	BF L.A.M.Coke MT	193800	Nearby Own Coke oven of Pragpar	By Road	05 kms	
	Iron ore lumps MT	162600	Goa, Hospet, Bellary, Orissa	By ship to Mundra & then By Road	20 km by road	
	Quartzite MT	11400	Gotan(Gujarat)	By Road	500 kms	
	Dolomite MT	300	Gotan(Gujarat) , Rajasthan	By Road	500 kms	
	Lime Stone MT	3000	-do-	By Road	500 kms	
	Manganese MT	1800	Hospet (Karnataka)	By Road	1200 kms	
	Nut Coke MT	3600	In house	-		

S.No	Particulars	Details			
	<b>Blast Furnace -2</b>	280000 MT/Annum			
	Sinter Product MT	378280	In house	-	-
	BF L.A.M.Coke MT	178080	Nearby Own Coke oven of Pragpar	By Road	05 kms
	Iron ore lumps MT	155400	Goa, Hospet, Bellary, Orissa	By ship to Mundra & then By Road	20 km by road
	Quartzite MT	19880	Gotan(Gujarat)	By Road	500 kms
	Dolomite MT	420	Gotan(Gujarat), Rajsthan	By Road	500 kms
	Lime Stone MT	3360	-do-	By Road	500 kms
	Manganese MT	3080	Hospet (Karnataka)	By Road	1200 kms
	Nut Coke MT	4760	In house	-	
	<b>DI Pipe Plant</b>	<b>579996, Say,580,000 MT/Annum</b>			
	Hot Metal MT	580000	In house	-	-
	Cement MT	64960	JK Lakshmi Cements	Bulker	>450 Km
	Steel Scrap MT	32480	Imported U.S Scrap	Container	60-70 Km
	Washed sand MT	2320	Local Vendor	Truck	>50Kms
	Ferro Silicon (Fe Si) Granule + lumps MT	20300	Rhodium Ferro Alloys, Bangalore	Truck	>1800 Kms
	Zinc wire MT	2320	Bhuj Polymer, Samghogha Gujarat	Truck	1Km

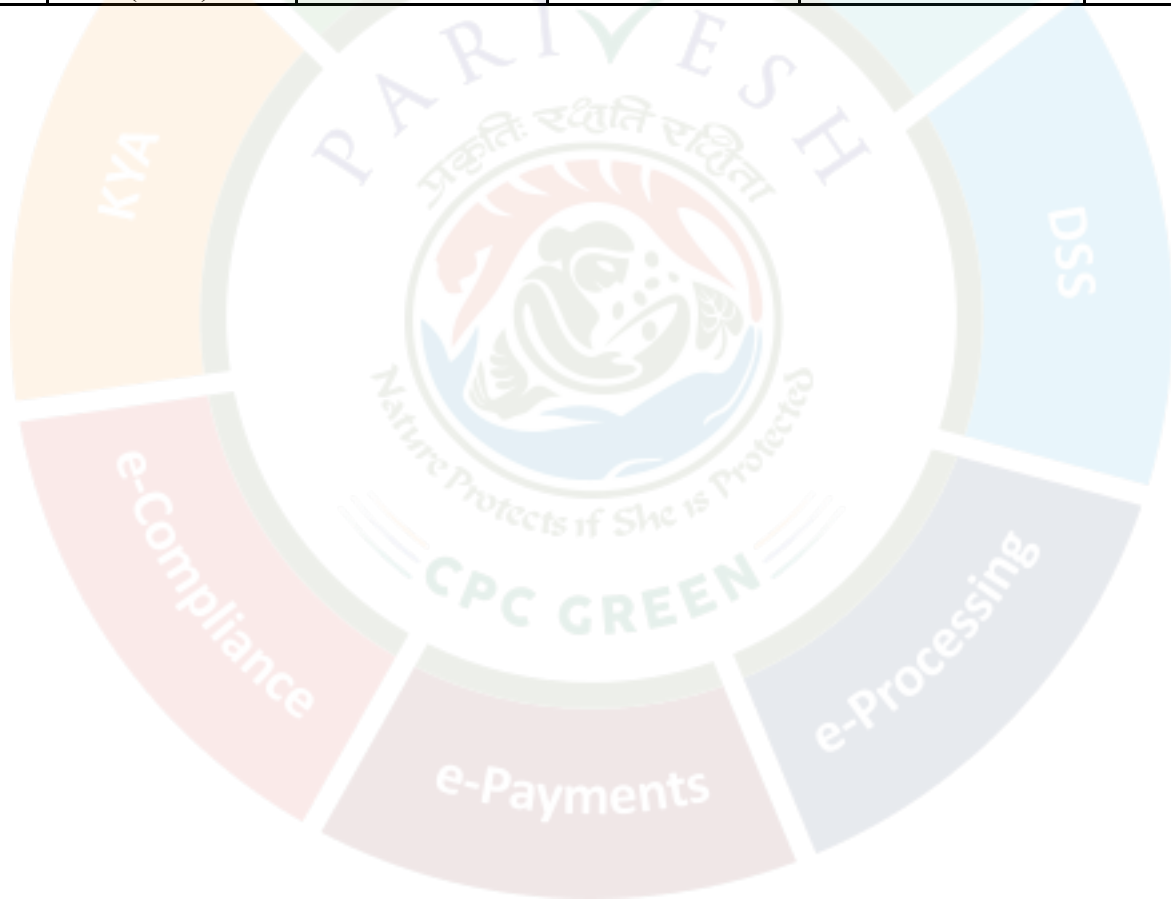
S.No	Particulars	Details				
		Bitumen Paint Black+Red MT	2320	Shalimar Paints, Secunderabad & PC Chanda-calcutta	Truck (Barrels)	>1450 kms
		Pure Magnesium MT	580	Imported from China	Containers	-
		Sieved River Sand MT	100050	Local Vendors	Trucks	Within 50Km
7	Water Requirement	4958 KLD				
8	Source of water	<ul style="list-style-type: none"> <li>Gujrat Water Infrastructure Limited's letter NO/GWIL/Kutch/Renewal/2024-25/1655 dated 20/09/2024</li> <li>Water Purchase Agreement with APSEZL dated 12/09/2020</li> <li>No further water drawl permission will be required after amalgamation</li> </ul>				
9	Power Requirement	<ul style="list-style-type: none"> <li>38 MWt from GEB grid and WHRPP Pargpur</li> </ul>				

## Annexure III

The unit configuration and capacity after the amalgamation

S. No.	Units	Unit Configuration as per MOEF's EC vide File No. J11011/868/2008 -IA-II (I) dated 26.11.2009	Unit Configuration as per SEIAA's EC Letter No. SEIAA/GUJ/EC/3 (a)//122/2011 dated 23/06/2011	Implementation Status	Unit configuration after amalgamation
<b>A) Blast Furnace</b>					
1	Blast Furnace	2.5 LTPA*	-	Implemented*	5.8 LTPA
2	Renovation and modernization of existing blast furnace	2,50,000 TPA (*existing) to 3,00,000 TPA	-	Implemented	
3	Mini Blast Furnace	2,80,000 TPA	-	Implemented	
<b>B) Sinter Plant</b>					
1	Sinter Plant	10.4 LTPA	-	Implemented	10.4 LTPA
<b>C) DI Pipe Facilities</b>					
1	Pipe Plant	8.184 LTPA	-	Implemented - DI Spun Pipe (2.0 LTPA), CI Pipe (0.78 LTPA), DI fittings (0.40 LTPA) & DI Casting (0.40 LTPA) -	~5.80 LTPA [3.58 LTPA +2.25]
2.	Small Diameter DI Pipes (SDP)		2,25,000 MTPA ~2.25 LTPA	Implemented	
<b>D) Steel Melting Shop</b>					
1	Steel Melting Shop Energy Optimized Furnace (EOF) Ladle Refining Furnace (LRF) Vacuum Degasser Unit (VDU) Continuous Caster Machine (CCM)	2,80,000 TPA 1x35 TPH 2x35 TPH 1x35 TPH 1x35 TPH	-	Not Implemented	-

S. No.	Units	Unit Configuration as per MOEF's EC vide File No. J11011/868/2008-IA-II (I) dated 26.11.2009	Unit Configuration as per SEIAA's EC Letter No. SEIAA/GUJ/EC/3(a)//122/2011 dated 23/06/2011	Implementation Status	Unit configuration after amalgamation
<b>D) Captive Power Plant (CPP)</b>					
1	Captive Power Plant	Power Generation: 21,290 KVA	-	Implemented	21,290 KVA -
2.	Captive Power Plant (BF gas)	4MW	-	Not Implemented	
<b>E) Air Separation Unit (ASU)</b>					
1.	Air Separation Unit (ASU)	110 TPD	-	Implemented	110TPD



## Annexure IV

<b>SPECIFIC CONDITION</b>	
1	Compliance to all the specific and general conditions stipulated for the existing plant shall be ensured and regular reports submitted to the Ministry and its Regional Office at Bhopal.
2	Use of anthracite coke shall be re-examined and a report submitted to the Ministry and its Regional Office at Bhopal.
3.	The amalgamated EC will be valid only in respect of the components implemented during the validity period of ECs dated 26.11.2009 and 23.06.2011 respectively. PP shall not construe the grant of amalgamated EC as a fresh EC to install and commission previously unimplemeted units.
<b>Air quality monitoring and preservation</b>	
3	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 monitoring and continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided to keep the emission levels below 30 mg/Nm <sup>3</sup> . All the gases from blast furnace after cleaning in gas cleaning plant (GCP) shall be used as fuel for power generation. 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.
4	Bag Filter shall be provided as air pollution control system as proposed for each (i) Core Shop, (ii) Magnesium Treatment, (iii) Socket Cleaning, (iv) Zinc Coating, (v) Tri-grinding Station (vi) Boiler. These bag filters shall be operated efficiently to achieve particulate matter emission levels below 50 mg/Nm <sup>3</sup> and rest of parameters as per the norms prescribed by the GPCB at the stack outlets.
5	Regular monitoring of ground level concentrations of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> and PM <sub>2.5</sub> parameters shall be carried out at atleast four stations in the downwind direction in the impact zone as well as where maximum ground level! concentration is anticipated and its records' shall be maintained. The concentration of pollutants shall not exceed the national ambient air quality standards notified by the MoEF vide notification dated 16/11/2009. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with GPCB
6	Online ambient air monitoring and continuous stack monitoring facilities shall the provided for all the stacks and sufficient air pollution control devices shall be provided to keep the particular matter emission level below 30 mg/Nm <sup>3</sup> as per the specific condition no. (iii) stated in the environmental clearance order no. J-11011/868/2008-IA-II(I) dated 26/11/2009 issued by the MoEF. The monitored data shall be displayed at strategic locations within and outside the premises, including at main gate of the company premises.
7	Secondary fugitive emissions from blast furnace shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued in this regard by the CPCB should also be followed.
8	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements should also be made to control dust emissions during loading and unloading of the raw material and finished product. Vehicular emissions shall be regularly monitored and records kept.
<b>Water quality monitoring and preservation</b>	
7	In-plant control measures for controlling fugitive emissions from spillage/raw materials handling shall be provided. Fugitive dust emissions from raw material handling system shall be minimized by using dry fogging system, air curtains and water sprinkling system. Fugitive emissions from raw material transfer points and junction points of conveyors shall be controlled by providing bag

	house. Coal mill shall be provided with bag filters to reduce coal dust pollution. Dedusting system shall be installed at stock house. Data on fugitive emissions shall be regularly monitored and records maintained.
8	Total water requirement after expansion from Gujarat Water Infrastructure Limited (GWIL) and bore wells shall not exceed 9,500 KLD (9.5 MLD) and 300 m <sup>3</sup> /day respectively as per the permission accorded by the concerned authorities. Air cooled condenser shall be provided to captive power plant to reduce water consumption. Ground water or any other surface water shall not be utilized for any construction or industrial purposes. Blow down water from cooling tower and air separation plant shall be reused as make-up water for slag granulation. Cooling tower blow down from blast furnace gas based captive power plant shall be used as make-up for dust scrubbing in EOF and recycled. DM plant regeneration water shall be neutralized and used for dust suppression and green belt development. Domestic wastewater shall be treated in sewage treatment plant (STP) and used for gardening.
9	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from the Gujarat Water Infrastructure Limited (GWIL).
10	'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
11	The water consumption should not exceed 16 m <sup>3</sup> /Ton of Steel as per prescribed standard.
12	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhopal, GPCB and CPCB.
13	Ground water monitoring around the solid waste disposal site / secured landfill (SLF) should be carried out regularly and report submitted to the Ministry's Regional Office at Bhopal, CPCB and GPCB.
14	Fresh water requirement for the proposed DI Pipe Plant shall not exceed 731.64 KL/day and it shall be met only through water supply from Gujarat Water Infrastructure Ltd. (GWIL).
15	No ground water shall be tapped for the project requirements. Water meter shall be installed at the all water intake points and its records shall be maintained.
16	There shall be no industrial effluent generation from the proposed DI Pipe Plant.
17	Domestic wastewater generation from the proposed DI Pipe Plant shall not exceed 1.44 KL/day and it shall be disposed off through septic tank - soak pit.
18	Rain water harvesting of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface' run off, pre-treatment must be done to remove suspended matter.
<b>Noise monitoring and prevention</b>	
19	To minimize the noise pollution, the following noise control measures shall be implemented: <ul style="list-style-type: none"> <li>✓ Selection of any new plant equipment shall be made with specification of low noise levels.</li> <li>✓ Selection of any new plant equipment shall be made with specification of low noise levels.</li> <li>✓ Selection of any new plant equipment shall be made with specification of low noise levels.</li> <li>✓ Noise suppression measures such as enclosures, buffers and / or protective measures shall be provided.</li> <li>✓ Employees shall be provided with ear protection measures like earplugs or earmuffs.</li> <li>✓ Proper oiling, lubrication and preventive maintenance shall be carried out of the machineries and equipment's to reduce noise generation.</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Construction equipment generating minimum noise and vibration shall be chosen.</li> <li>✓ Ear plugs and/muffs shall be made compulsory for the construction workers working near the noise generating activities/machines/equipment:</li> <li>✓ Vehicles and construction equipment with internal combustion engines without per silencer shall not be allowed to operate</li> <li>✓ Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.</li> <li>✓ Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas.</li> <li>✓ Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment.</li> </ul>
20	The overall noise level in and around the plant area shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration dampers etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under the Environment (Protection) Act and Rules. Workplace noise levels for workers shall be as per the Factories Act and Rules...
<b>Waste management</b>	
21	All the blast furnace slag shall be granulated and provided to cement manufacturers for further utilization. All the dust from the air pollution control equipment and scales shall be recycled and reused in the sinter plant. All the other solid waste including SMS slag after metal recovery, sludge from EOF gas cleaning plant, broken refractory mass shall be properly disposed off in environment-friendly manner Spent/used oil and lubricants shall be sold to the registered recyclers as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.
22	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
23	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, GPCB and CPCB.
24	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008, as may be amended from time to time. Authorization from the GPCB shall be obtained for collection / treatment/storage/ disposal of hazardous wastes.
25	Hazardous / solid wastes shall be packed and stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal.
26	Zinc Dust and Used / Waste Oil shall be sold to only to the registered recyclers.
27	Cement & Sand Waste shall be utilized in solid brick manufacturing.
28	The company shall undertake following waste minimization measures: a) Metering and control of quantities of active ingredients to minimize waste. b) Reuse of by-products from the process as raw materials or raw materials substitutes in other process. c) Use of automated and enclosed filling to minimize spillages. d) Use of close feed system. e) Dry cleaning/mopping of floor instead of floor washing f) Use of high pressure hoses for equipment cleaning to reduce wastewater generation g) Regular preventive maintenance for avoiding leakage, spillage etc.
<b>Green Belt</b>	
29	The green belt shall be developed in 103 acres (33%), out of total 312.14 acres in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO.
30	The unit shall develop green belt in at least 3-acre area within premises as proposed as per the guidelines of the CPCB. Green belt of average 15 m width comprising of rows of varying height tall trees with thick foliage shall be developed in the periphery of the factory premises.

31	Drip irrigation system shall be used green belt development.
32	The unit shall also take up adequate plantation at suitable open land on road sides and other open areas in nearby villages or schools in consultation with the Gram Panchayat / GPCB and submit an A action plan for the same for not three years to the GPCB.
<b>Public hearing and Human health issues</b>	
33	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 9th July, 2009 shall be satisfactorily implemented.
34	The company shall provide housing for construction labor 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
35	Training shall be imparted to all the workers on safety and health aspects of molten metal handling, heat stress etc. to avoid its impact on human being.
36	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act and Rules. Pre-employment and periodical post-employment medical examination for all workers shall be undertaken as per the statutory requirements.
37	At all the times, Necessary tie up with the nearby doctor qualified /hospital for occupational health shall be made to ensure that the medical treatment is given within the shortest possible time in case of any adverse condition.
38	Sufficient ventilation, exhausts shall be provided to maintain the temperature within the work area. Temperature indicators shall be provided at the vulnerable places in consultation with Director of Safety and health.
39	The project management shall prepare a detailed Disaster Management Plan (DMP) for the project as per the guidelines from Directorate of Industrial Safety and Health.
<b>Environment Management</b>	
40	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be strictly implemented.
41	The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of industrial Safety & Health)
<b>Miscellaneous</b>	
42	Total production of molten metal / sponge iron after the proposed expansion for captive consumption plus sell shall not exceed the total permitted quantity of 5,80,000 TPA as per the MoEF's environmental clearance order dated 26/11/2009.
43	The company shall strictly abide by the outcome / order of the Court for the litigation in the Mundra Civil Court with reference to the matter of the existing cart track.
44	The alternate new cart track shall be dedicated for use of villagers and the company shall not claim ownership of that land in future as well. Moreover, the company shall not plan any expansion / activity in future that may lead to rerouting of the new cart track.
45	Blast furnace top gas shall be cleaned in multi-cyclone and bag house. Flue gas from Energy Optimizing Furnace (EOF) shall be treated in gas cleaning plant comprising of cyclone followed by wet ventury scrubber and clean gas shall be discharged through a stack of adequate height as per CPCB guidelines. Fume extraction system with bag filters shall be provided to ladle refining furnace (LRF). The SPM emissions from all the sources shall be controlled within 50 mg/Nm <sup>3</sup> .
46	Blast Furnace Gas, ILDO, FO & LPG shall be used as fuels in the new Di Pipe Plant.
47	Height of stacks attached to (i) Core Shop, (ii) Magnesium Treatment, (iii) Socket Cleaning, (iv) Zinc Coating, (v) Tri-grinding Station (vi) Boiler shall be 30 m and height of stack attached to

	Annealing Furnace shall be 45 m. Adequate port holes and sampling facilities shall be provided at all the stacks.
48	The company shall prepare schedule, carry regular preventive maintenance of mechanical and electrical parts of Bag Filters, replace damaged bags, and assign responsibility for the same to the senior officer of the company.
49	Third party performance evaluation of the Rag Filters shall be carried out at least once in a year to check its performance and efficiency through a reputed institute like NPC, 10. College of Engineering or such other institute of similar repute, and its records shall be maintained.
50	Burnt Core Sand shall be transported to sand reclamation plant for its reuse to make fresh cores
51	Magnesium Powder shall be sold to fertilizer industries or reused in sinter plant.
52	Fire protection system based on National Fire Protection Association (NFPA) approved guidelines shall be provided.
53	Personal Protective Equipment shall be provided to workers and its usage shall be ensured and supervised.
54	First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity at all the times.
55	Hazardous materials storage shall be at an isolated designated location. Storage and use of hazardous chemicals shall be minimized to the extent possible and all necessary precautions shall be taken to mitigate the risk generated out of it.
56	All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages.
57	All efforts shall be made for automization of molten metal handling and human exposure to the molten metal shall be avoided as far as possible.
58	Dust from Tri-grinding Station shall be reused in-house.
59	The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB..

## **GENERAL CONDITIONS**

### **Air quality monitoring and preservation**

1	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB) and the State Government.
2	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB) and the State Government.
3	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The Gujarat Pollution Control Board (GPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.
4	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The Gujarat Pollution Control Board (GPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.

### **Water quality monitoring and preservation**

5	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.
6	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report and during the public hearing meeting. 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.
7	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.
<b>Noise monitoring and prevention</b>	
8	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).
<b>Public hearing and Human health issues</b>	
9	All the issues raised in the public hearing held on 29/3/2011 shall be comprehensively addressed / complied with in a time bound manner.
10	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
11	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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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.
12	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
13	The project proponent shall vigorously implement the CSR Action Plan for the year 2011-12 submitted to the SEAC, Gujarat and allocate Rs 92.82 lacs for the same.
14	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
15	The company shall vigorously follow the recommendations mentioned in the Charter on Corporate Responsibility for Environment Protection (CREP) published by the Central Pollution Control Board
16	As proposed, Rs. 20.00 Crores and Rs. 2.00 Crores shall be 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 Forests 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.
<b>Miscellaneous</b>	
17	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.
18	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 <sub>2</sub> , NO <sub>x</sub> (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.
19	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 at Bhopal, the respective Zonal Office of CPCB and the GPCB. The Regional Office of this Ministry at Bhopal / CPCB/GPCB shall monitor the stipulated conditions.
20	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 MOEF by e-mail.
21	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.
22	The "Need Assessment Study" shall be carried out through any reputed institute like Tata Institute of Social Studies; Sardar Patel Institute of Economic Research etc. and based on the needs of the community, various socio-economic developmental / community welfare activities shall be carried out in consultation with the District Development Officer / District Collector / GPCB. The project proponent shall assign specific budget for socio-economic developmental of the surrounding villages.
23	A separate Environment Management Cell equipped with full-fledged laboratory facilities and qualified personnel shall be set up to carry out the environment management and monitoring functions and a separate budget shall be allocated for this purpose.
24	The funds earmarked for environment protection measures and CSR activities shall be maintained in a separate accounts and there shall not be any diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported.
25	Pucca flooring/impervious bottom shall be provided in the work areas and storage.
26	Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly. During material transfer, spillages shall be avoided and garland drain be constructed.
27	The project management shall also implement the recommendations made in the EIA / EMP report of the project and the undertaking submitted by the project proponent.
28	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
29	No further expansion or modifications in the plant shall be carried out without prior approval of the MoEF/ SEIAA, as the case may be. In case of deviations or alterations in the project proposal from those submitted to MOEF/ SEIAA SEAC for clearances, a fresh reference shall be made to the SEIAA/ SEAC to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
30	The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCD along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
31	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

32	The project, authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
33	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
34	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
35	The above conditions will be unforced, inter-ails under the provisions of the Water (Prevention & Central of Pollution) Act, 1974. Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
36	This Environmental Clearance is valid for five years from the date of issue.



## Annexure V

The compliance on implementation of issues raised in PH post amalgamation of the project

### A) Public hearing for the EC issued by MOEF on 26 November 2009 was held on 09/07/2009

SL.NO	PH issue raised	Implementation Status
1	To provide employment for local and surrounding population based on skills and competence	Jindal Saw has employed 997 nos of person and around 600 labors from from Gujarat state. Priority is mainly given to local people for employment.
2	To provide trainings/ apprenticeship for Local ITI Institute for generating further local workforce.	Approximately 80 ITI students every session is considered for apprenticeship training. Industrial training requirement are also fulfilling as and when required.
3	Promote entrepreneur skills in local surroundings people with objective of creating small scale industries and service industry support.	In company various material handling equipment's like cranes, hydra, tractor trolleys, tankers, total 124 Nos. are hired & operating between 12 to 24 hrs. basis. All of them are provided by local population. Various materials required for production need like Sand, limestone etc, various repair maintenance items are aslo sourced locally.
4	Support infrastructure to provide residents and basic amenities for employees residing outside the plant campus.	Around 2000 employees and families of company are living in and around Samaghogha, Bhujpur, Mota Kapaya, Nana Kapaya and Mudra on rental premises. Transport facilities have been provided to the employees to attend duty.
5	Reduction in consumption of water for various plant processes.	* Close loop cooling systems in new projects and modification in existing blast furnace * Waste water generated from RO plant is used in slag granulation pond for cooling purpose. * Filter press installed for reuse of water after internal coating * In new power plant projects, air cool condenser is installed to reduce water consumption at Prgapar unit
6	Recovery and Recycling of waste water	Domestic waste water is being treated in 2 MLD capacity Sewage Treatment Plant and treated water is being recycled by reusing for process and gardening purpose.
7	Reporting to GPCB/CPCB/MOEF	Monthly environment monitoring report, Environmental statement (Form-Vth) Annual return on hazardous waste, are being submitted to GPCB. MOEF half yearly EC compliance status of EC compliance is being submitted to regional office of MOEF. and GPCB
8	Pollution reduction action	Air: - <ol style="list-style-type: none"> <li>1. Reduction in use of fossil fuel like LDO, HSD and LPG.</li> <li>2. Replacement of fossil fuel by using BF gas.</li> <li>3. 30 MW Waste Heat recovery power plant at Paragpar is under operation.</li> <li>4. Dry De-dusting system (DDS) is under operation in place of gas cleaning plant by which we recover dry</li> </ol>

SL.NO	PH issue raised	Implementation Status
		<p>dust and the same is being used in sinter plant. 120-130 KLD water saved due to DDS.</p> <p>Water: -</p> <ol style="list-style-type: none"> <li>1. Sewage Water Treatment plant of capacity of 2 MLD is under operation.</li> </ol> <p>Solid: -</p> <ol style="list-style-type: none"> <li>1. Slag generated in Blast Furnace is granulated &amp; used in slag grinding unit as well as sold to cement manufacturer. the plant</li> <li>2. Fines of raw material as well as generated in Blast Furnace is being recycled through Sinter Plant.</li> </ol>
9	Plantation of trees to develop green belt in plant premises. Distribution of Sapling to nearby villages for developing green belt	<p>More than 2.0 Lakhs saplings have been planted surrounding plant premises and more than 90 acres' area developed as green belt.</p> <p>On the occasion of World Environment day around 500 saplings are being distributed to nearby villages to promoting green belt in the surroundings every year.</p> <p>Beside this, we provide plant saplings as and when required by surrounding local body.</p>
10	General OPD Services and investigation & general Physical check up IPD Services Mobile Dispensary Theme Medical camps Anganwadi Health checkup camps Vaccination Blood donation campus Emergency medical support and Ambulance Services Health awareness program	<p>1400-1600 patients of surrounding villages have treated at OHC in every year.</p> <p>Indoor Patient facilities is being provided to villagers.</p> <p>Mobile dispensary facility is available and a schedule has been made to visit nearby villages.</p> <p>Specialties, Multispecialty &amp; Super specialty, pediatrics, such as medicine and eye specialist camps and neurology and urology.</p> <p>Anganwadi health camps organized quarterly to provide nutrition support to children of nearby village.</p> <p>vaccination to surrounding village school children.</p> <p>Blood donation camps are being organized once in year</p> <p>Emergency medical support and Ambulance services for villagers are being provided round the clock.</p> <p>Urology and neurology awareness program are arranged through presentation</p>

**B) Public hearing for the EC issued by SEIAA on 23 June 2011 was held on 29.03.2011**

SL.NO	PH issue raised	Implementation Status
1	Employment	<p>1010 employees including labors were engaged up to 17<sup>th</sup> March, 2011 from Gujarat State and in the month of March,2011, 357 no. of employees were engaged from Gujarat State.</p> <p>The Details of the above figure were already been submitted to SEIAA Committee.</p>
2	Water Usage and permission from CGWA	<p>Company has obtained permission from CGWA to withdraw ground water.</p> <p>The CGWA NOC was submitted to SEIAA committee.</p>

SL.NO	PH issue raised	Implementation Status
		<p>The plant has been designed on “ZERO DISCHARGE CONCEPT” as the all units have their own reuse / recycle system, the waste water is being utilized in Slag Granulation unit as a make-up water. Hence, our plant is ZERO-LIQUID DISCHARGE (ZLD).</p> <p>Besides the above, the domestic waste water was being treated in 0.5 MLD capacity Sewage Treatment Plant and treated water was being recycled by reusing for process and gardening purpose.</p>
3	Pollution	<p>Company has installed ESP's, Bag filters, Scrubbers, Cyclones to control pollutant at various source of pollutions.</p> <p>Environment monitoring has been carried out in-house as well as third party on monthly basis and results has been submitted to GPCB office on regular basis.</p>
4	Education Facility	<p>Company has developed Shri O.P.Jindal Vidya Niketan School from Nursery to 12<sup>th</sup> Class affiliated with CBSE board.</p> <p>The Strength of the children about 1,800nos in which about 40% belongs to nearby villages.</p>
5	Green Belt Development	<p>About 58,242 saplings has been planted from Jan-2005 to Mar-2011</p> <p>The document regarding the green belt was already submitted to SEIAA committee. (Detail of same is attached for your ready reference).</p> <p>At present company has developed, more than 33% (38.51Ha) of green belt in the allotted land.</p>
6	Medical Facilities	<p>Company has established a full-fledged Occupational Health Centre (OHC) having two permanent doctors with para-medical staff's having three ambulances.</p> <p>The medical services are free for surrounding villagers.</p> <p>Emergency medical support and Ambulance services for villagers are being provided round the clock.</p> <p>Indoor Patient facilities is being provided to villagers.</p> <p>Mobile dispensary facility is available and a schedule has been made to visit nearby villages.</p> <p>Specialties, Multispecialty &amp; Super specialty, pediatrics, such as medicine and eye specialist camps and neurology and urology.</p> <p>Anganwadi health camps organized quarterly to provide nutrition support to children of nearby village.</p> <p>vaccination to surrounding village school children.</p> <p>Blood donation camps are being organized once in year.</p> <p>About 2000 patients of surrounding villages have treated at OHC every year.</p>
7	Corporate Social Responsibility (CSR)	<p>Continuous financial supports are provided to surrounding village 'Gow sala' for cattle feed.</p> <p>Presently school is operated by Gujarat educational board and approved by CBSE board, new – Delhi.</p> <p>Bus facilities for school children are providing from bhujpar, mundra and nana. Kapaya villages.</p> <p>1800 children are studying in jsaw school out of which approx. 500 children are from surrounding villages.</p> <p>At present 3 teachers are sponsored by jsaw at sammaghoga village and one each for toda and pragpar village.</p>

SL.NO	PH issue raised	Implementation Status
		<p>Distributing notebooks and other educational aids at school nearby village school.</p> <p>Provided furniture for student of badi school pragpar 1 and 2 village.</p> <p>Deepening of the ponds in the surrounding villages and also develop check dam nearby.</p> <p>Constructed underground water tank for pragpar school</p> <p>Scholarship for brilliant student for higher education throughout the country through Shri O.P Jindal engineering and management scholarship.</p> <p>Major minority and other resource contribution for flood relief at bhuj in the year 2011.</p> <p>Constructed / participated in immediate repairing of broken road at NH-8a near samaghogha during torrential rain.</p> <p>Donation to rotary club and Kutch district police Parivar samati, donation to rama bhai college of pharmacy maldavi.</p> <p>Donation to Kutch raan utsav approx. Rupee 1 crore.</p>

