



No. HMC/HAL/MOEF - ENV/ 03 - FY20

To  
The Deputy Director (S)  
Ministry of Environment, Forests & Climate Change  
Govt. of India  
Eastern Regional Office  
A-3 Chandrashekharpur,  
Bhubaneswar —751 023,  
Orissa

30 November 2020

Dear Sir,

**Sub: Six monthly Environmental Compliance Reports for the period  
April 2020 – September 2020 of  
Tata Steel Limited, Hooghly Met Coke Division - Haldia**

Kindly find enclosed the Six Monthly Compliance Report (April 2020 – September 2020 ) for the conditions stipulated in Environmental Clearance to the Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal by M/s Tata Steel Limited, Hooghly Met Coke Division, Haldia vide MoEF's letter# F. No. J-11011//284/07- IA II (I) dated 29/01/2008.

I would like to draw your kind attention that the Expansion project (EC received for Coke Oven Plant from 1.6 MTPA to 2.2 MTPA of M/S Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on 23<sup>rd</sup> February, 2017 vide F. No. J-11011//284/2007- IA II (I)) for of the existing coke oven plant has not yet started because of final approval from Board is still pending. We are operating the plant at 1.6 MTPA capacity only and we have not applied for NOC for "Consent to Establish" from SPCB for the expansion project.

The soft copy of the compliance report has been already sent to you via email and the hard copy is enclosed herewith for your perusal please.

As the new project has not yet started so enclosing herewith also the DATA SHEET for FY21 mentioning the same for your reference.

The compliance reports will be uploaded to the company's website for public also. We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,

S K SETH  
General Manager  
Tata Steel Ltd.  
Hooghly Metcoke Division  
Haldia

**TATA STEEL LIMITED**  
Hooghly Met Coke Division

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Tel 03224 251333 Fax 03224 251305  
Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India  
Tel 91 22 6665 8282 Fax 91 22 6665 7724  
Corporate Identity Number L27100MH1907PLC000260 Website [www.tatasteel.com](http://www.tatasteel.com)

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)



**Period –April 2020 – September 2020**

A.	SPECIFIC CONDITIONS																																
i.	<i>Proper and full utilization of coke oven gases in power plant using heat recovery steam generators (WHRB) shall be ensured and no flue gas shall be discharged into the air.</i>																																
Com	<ul style="list-style-type: none"> <li>• The coking coal is fed after crushing into Heat Recovery type coke oven batteries consisting of chambers made of refractory. The Carbonization of coal takes place at 1100 to 1250° C and the heat for carbonization is supplied by combustion of volatile matters evolved from the coal charged by admitting air into the chamber. The hot flue gas free from volatile matters is used to generate electric power by generating steam in waste heat recovery boiler.</li> <li>• Presently the plant is operating at rated capacity of 1.29 MTPA coke production. No expansion project of additional capacity has been taken up</li> <li>• From April 2020 to September 2020 total coke production was 609395 DMT (Dry Metric Ton) and Power generated is 282.188 MU.</li> </ul> <table border="1" data-bbox="309 913 1557 1435"> <thead> <tr> <th>Month</th> <th>Coke Production (Tonnes) Dry</th> <th>POWER GENERATION (In MU)</th> <th>WHRB Availability (%)</th> </tr> </thead> <tbody> <tr> <td>Apr-20</td> <td>77,782</td> <td>37.54</td> <td>91.5</td> </tr> <tr> <td>May-20</td> <td>76,680</td> <td>30.711</td> <td>82.1</td> </tr> <tr> <td>Jun-20</td> <td>109,025</td> <td>46.568</td> <td>90.7</td> </tr> <tr> <td>Jul-20</td> <td>110,980</td> <td>55.419</td> <td>92.4</td> </tr> <tr> <td>Aug-20</td> <td>117,348</td> <td>56.83</td> <td>92.8</td> </tr> <tr> <td>Sep-20</td> <td>117,580</td> <td>55.12</td> <td>85.4</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>609,395</b></td> <td><b>282.188</b></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• The plant is having 352 numbers of coke oven batteries (1.6 MTPA coke capacity) equally divided into 4 rows. 11 numbers of ovens are forming one block so each row is having 8 nos of block. 2 nos. of blocks of 11 ovens each is now connected to one no. of WHRB &amp; subsequently 2 nos. of WHRBs connected to one no. of combined stack of 70 m height. So each row has 4 numbers of WHRBs and 2 no. of stack. Total 8 nos of stacks and 16 nos of boilers are present in the entire plant. Stacks are designed for stack emission &lt;50 mg/Nm<sup>3</sup> of particulate matter.</li> <li>• There is no flow meter installed for measuring the gas volume used for power generation and discharged into the air.</li> </ul>	Month	Coke Production (Tonnes) Dry	POWER GENERATION (In MU)	WHRB Availability (%)	Apr-20	77,782	37.54	91.5	May-20	76,680	30.711	82.1	Jun-20	109,025	46.568	90.7	Jul-20	110,980	55.419	92.4	Aug-20	117,348	56.83	92.8	Sep-20	117,580	55.12	85.4	<b>TOTAL</b>	<b>609,395</b>	<b>282.188</b>	
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ii.	<i>The prescribed emission standards for coke oven plants as notified vide notification no. GSR 46 (E) dated 3rd February, 2006 shall be complied with.</i>																																

### M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)


**Period –April 2020 – September 2020**

Com	<ul style="list-style-type: none"> <li>This is the unit established after the notification of 2006 published, and as per notification no. GSR 46(E) the Non recovery / waste heat recovery technology has been adopted for coke making which is environment friendly method.</li> <li>The emission standard specified in the Environmental Clearance, under Specific condition (iii) for stack emission has been followed.</li> <li>To reduce the SPM, non recovery type technology is being used. WHRB used as PCU. The coal is being charged inside the oven under negative pressure for 70 hours (avg. in a temp of 950 – 1100 °C as a result the volatiles evolved during coal carbonization is being combusted completely in presence of controlled quantity of air so emission of any particulate matter is very low. The stack height is 70Mt from GL. The emission from all stack are much less than 50mg/Nm3 of SPM.</li> <li>Online stack monitoring system is also installed in all 8 chimney. Regular stack monitoring is done by registered third party also.</li> </ul>
iii.	<p><i>Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emissions within 100 mg/Nm3 and reports submitted to the Ministry's Regional Office at the Bhubaneswar, WBPCB &amp; CPCB.</i></p>
Com	<ul style="list-style-type: none"> <li>On-line stack monitoring, the Opacity meter has been commissioned in all Chimney. The opacity meter reading to be connected to CPCB and WBPCB server will be done by FY21</li> <li>Regular stack monitoring is done by registered third party. The Stack emission (avg) report for last six month (April'20 – Sept'20) enclosed as <b>ANNEXURE - 2</b>.</li> </ul>
iv.	<p><i>Fugitive emissions from coal handling plant shall be controlled by sprinkling water. Dry fogging system shall be installed at all the transfer points. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources including material handling areas and material transfer points.</i></p>
Com	<ul style="list-style-type: none"> <li>Besides the continuous water sprinkling at coal handling plant and all transfer point; the Dust Suppression System with Dry Fogging (DF) has been commissioned. In Wagon Tippler, Coal crusher unit and all the coal transfer points the DF and dust suppression system is operational.</li> <li>Dry fog system for coal and coke handling to restrict particulate emission to within 10 mg per cu m have been installed. The system has been installed at Wagon tippler unit, coal crusher unit, Coal / coke transfer points like Junction House # 5 (Cl#7 belt discharge pt., CL#8 belt receiving pt.); Junction House # A (WCK#1, 2 belt discharge pt. WCK#3 belt receiving pt.); Junction House # B (WCK#3 belt discharge pt. RCK#1, CK#1 belt receiving pt.); Junction House # C (WCK#5, 6 belt discharge pt. CK#7 belt receiving pt.); Junction House # D (WCK#7, RCK#3 belt discharge pt. CK#1 belt receiving pt.); Screen House. In last six month 5 numbers of DF points have been constructed in coal handling area at Junction House # 1, 2 &amp; 2A. Regular maintenance is being done for making this system effective</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> <li>More than 2 Kilometers of the road inside the material handling area has been paved to reduce the dust generation. The total coal yard (area of 25000 sq. Mt.) has also been concreted in order to</li> </ul>

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**Period –April 2020 – September 2020**

	<p>prevent the dust generation.</p> <ul style="list-style-type: none"> <li>Movable water tanker with sprinkling arrangement is used for water sprinkling purpose in the road within factory and in the periphery area and also the mechanised Mobile Vacuum Cleaning system is being used regularly for arresting the fugitive emission</li> <li>All around the stock yard the boundary wall has been constructed to restrict the dust flowing outside the factory. The average height of the wall is 5 mt.</li> <li>30 numbers of the "Rain Gun Water Sprinklers" have been installed in the coal yard to prevent the generation of fugitive emission from the coal heap. These sprinklers can rotate at 360° and can spray the water at a radius of 15 meter. The height of the sprinklers are approx 2.6 mt.</li> </ul>  <ul style="list-style-type: none"> <li>The workplace air quality, as well as ambient air quality (PM<sub>10</sub> &amp; PM<sub>2.5</sub>) is being monitored at the regular intervals, summary of the same is given in subsequent paragraphs. The ambient air monitoring for 12 parameters as per National AAQ standard have also been done. The details data are enclosed as : <b><u>ANNEXURE 1</u></b></li> </ul>
v.	<p>Secondary fugitive emissions shall be controlled within the prescribed limits, regularly monitored and records maintained. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.</p>
Com	<ul style="list-style-type: none"> <li>The ovens work under the negative pressure so secondary fugitive emissions are negligible in this non recovery coke making technology</li> <li>All workers are being provided with PPEs for protection</li> <li>HMC is following the CPCB guidelines so far the non recovery coke oven plant operation is being concerned.</li> <li>Positive sealing arrangements has been provided in the oven doors and flue gas pipes/valves</li> <li>Gaseous emissions are monitored regularly; corrective action taken whenever the results found crossing the limit.</li> </ul>
vi.	<p>Total requirement of the water from Haldia Development Authority for coke oven and WHRB shall not exceed 5,300 m<sup>3</sup>/day and 13,750 m<sup>3</sup>/day respectively. The effluent shall be treated in the effluent treatment plant and all the treated wastewater shall be recycled and reused either in the process or for dust suppression or green belt development. No wastewater shall be discharged outside the factory premises and 'Zero' discharge shall be adopted. Domestic effluent shall be treated in sewage treatment plant (STP) and disposed off as per norms laid down by Haldia Municipal Corporation.</p>
Com	<ul style="list-style-type: none"> <li>The average water taken from HDA as make-up water during April '20 to Sept '20 was <b>1317.82 m<sup>3</sup>/day</b> approximately for coke oven (Tata Steel, Hooghly Met coke) and <b>5341.57 m<sup>3</sup>/day</b> approximately for WHRB (Tata Power) which is within the permissible limit granted by the MOEF. The detail water consumption report is enclosed <b>as : <u>ANNEXURE 3</u></b></li> <li>The processed water is being tested and recycled and used for coke quenching and for green belt development within the plant.</li> </ul>

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**Period –April 2020 – September 2020**

	<ul style="list-style-type: none"> <li>• Initiatives taken for achieving Zero Discharge are:             <ul style="list-style-type: none"> <li>• A Storm water pond has been developed. The capacity of the pond is 4000 Cu mt (approx). Pipe line has been laid in all 4 rows for use the same water for coke Quenching purpose</li> <li>• Pump has been installed at the end of Row#4 drain final outlet to re-circulated the water in the quenching pond .</li> </ul> </li> <li>• As the unit is not having any township inside the factory premises <b>no domestic effluent</b> has been generated at the company's scope so STP has not been provided separately. The canteen waste water is being recycled in the process itself.</li> <li>• STP has been commissioned inside the plant and phase wise all domestic effluent is being treated in this STP. The outlet water is being stored at the storm water pond and finally used for coke quenching</li> </ul> <div data-bbox="544 801 1321 1240" style="text-align: center;"> </div>
vii.	<p><i>Permission for the drawl of water from Haldia Development Authority shall be obtained and recommendations implemented.</i></p>
Com	<ul style="list-style-type: none"> <li>• HMC is purchasing the water from M/S Haldia Water Service Pvt Limited . An agreement between Haldia Development Authority and HMCPL had taken place on 01 March 2007 , Ref no: 04AA 789559</li> </ul>
viii.	<p><i>Coal and coke fines shall be recycled and reused in the process. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner. The waste oil shall be properly disposed off as per the Hazardous Waste (Management &amp; Handling) Rules, 1989 and subsequent amendments.</i></p>
Com	<ul style="list-style-type: none"> <li>• Coal fines are reused in the process and coke fines are sent to JSR for re-using at their end.</li> <li>• The empty oil drum and oil filters and oil soaked jute/cotton waste generated from the process is being sent to the authorized re-processor (TSDF).</li> <li>• The used oil generated from the process is being sent to authorized re-processor</li> <li>• The organisation has taken special initiative to reduce solid waste generation by reducing the oven door consumption. The door cast-able (refractory bricks) material is being now electrically preheated as a result the door cast-able life has been increased and refractory brick waste generation has been reduced over the years.</li> </ul>

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**Period –April 2020 – September 2020**

- The ceramic blankets are being disposed to the authorized TSDF.

FORM 10 WEST BENGAL WASTE MANAGEMENT LIMITED MANIFEST FOR HAZARDOUS AND OTHER WASTE		FORM 10 MANIFEST FOR HAZARDOUS AND OTHER WASTE	
1. Sender's name and mailing address (including Phone No. and e-mail)	TATA STEEL LTD. HOOGHLY METCOKE DIVISION PURBA MEDINIPUR, HALDIA Dist. Purba Medinipur, West Bengal, Pin No. 721004	1. Sender's name and mailing address (including Phone No. and Email)	TATA STEEL LTD. Hooghly Met Coke. Bhikhal, Haldia-721004, Pin 721004
2. Sender's authorization No.	144/25 (HW) - 2898/2012	2. Sender's authorization No.	74/25 (HW) - 2804/2006 (PI I)
3. Manifest Document No.	12096	3. Manifest Document No.	B004825
4. Transporter's name and address (including Phone No. and e-mail)	West Bengal Waste Management Limited J. No. 103, Moza, Purba Bakrampur P.O. & P.S. Sushata, Haldia 721033 Dist. Purba Medinipur, West Bengal, Pin No. 721033 / 39 E-mail: wbmw_fm-2@sanjiv.com	4. Transporter's name and address (including Phone No. and Email)	N.K. Company, JK Industrial Estate, Haran Mulla Road, V.I.I. -Barrington, P.O. Rajaranga, P.S. -Bishnupur, 24 Pgs
5. Type of vehicle	Truck/Tanker/Special Vehicle	5. Type of Vehicle	(Truck/Tanker/Special Vehicle)
6. Transporter's registration No.	WB29B6030	6. Transporter's registration No.	WB41B5396
7. Vehicle registration No.	WB29B6030	7. Vehicle registration	WB41B5396
8. Receiver's name and mailing address (including Phone No. and e-mail)	West Bengal Waste Management Limited J. No. 103, Moza, Purba Bakrampur P.O. & P.S. Sushata, Haldia 721033 Dist. Purba Medinipur, West Bengal, Pin No. 721033 / 39 E-mail: wbmw_fm-2@sanjiv.com	8. Receiver's name and mailing address (including Phone No. Email)	N. K. COMPANY J. R. INDUSTRIAL ESTATE V.I.I. -Barrington, Haran Mulla Rd., P.O. -Rajaranga, P.S. -Bishnupur,
9. Receiver's authorization No.	144/25 (HW) - 2898/2012	9. Receiver's authorization no.	24 Pgs. (B)
10. Waste description	Empty Oil Drum, all soaked by 1-3/4 Ton. petrol. Tank/oil filler 37 nos. Empty oil drums (37 nos)	10. Waste description	Used Oil
11. Total quantity No. of Containers	37 nos.	11. Total quantity No. of Containers	1390.41 m <sup>3</sup> or MT
12. Physical form	Solid/Semi-Solid/Sludge/Gilly/Tarry/Slurry/Liquid	12. Physical form	(Solid / Semi-Solid / Sludge / Only / Tarry/Slurry / Liquid)
13. Special handling instructions and additional information	Hazardous waste material Handle with care & safe	13. Special handling instructions and additional information	Take care during loading/Unloading & handling oil.
14. Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name, packed, marked and labeled and are in all respects in proper condition for transport by road according to applicable National Government Regulations.	14. Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorized, packed, marked and labeled, and are in all respects in proper condition for transport by road according to applicable national government regulations.
15. Transporter acknowledgement of receipt of Wastes	Name and stamp: Signature: Day: 07, Month: 06, Year: 2020	Name and Stamp: Signature: Day: 07, Month: 01, Year: 2020	
16. Receiver's certification for receipt of hazardous and other waste	Name and stamp: Signature: Day: 07, Month: 06, Year: 2020	16. Receiver's certification for receipt of hazardous and other waste	Name and Stamp: Signature: Day: 07, Month: 02, Year: 2020

ix. All the environment management measures given in the EIA/EMP shall be implemented and complied with.

Com

- Implementation of protection measures as indicated in the REIA are implemented. Online stack monitoring systems are being commissioned. For dust suppression DF system has been installed. Acoustic enclosures / barriers / shields are being used to reduce noise, providing the personal protective equipment like ear plugs/ muffs etc are also being provided.
- As the batteries are operating under negative pressure, no flames are visible inside the battery and the temperature in the battery area remains > 40 deg C (avg).
- All the workers working at battery area are being provided with adequate PPEs like Fire resistant jacket, nose mask etc.



x. As proposed, green belt shall be developed in 27 % area as per the CPCB guidelines in consultation with DFO.

Com

- Nearly 18.50 hector area is being considered as Green belt. Total 29000 number of trees are surviving as on date under Tata Steel scope (nearly 5000 nos of trees were uprooted during the cyclone "Amphan". Replantation is under progress. Approximately 6000 trees are existing within

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	<p>Tata Power scope which adds another 1.45 hector area. Total Green Belt area is approximately 26% of the total 72.5 hector plant area. The areas where tree plantation are not feasible, and also not required to be paved, are being covered with grass, hedges and low bushes with flowering trees for beautification and to avoid soil erosion. The details of the trees planted are given below.</p> <ul style="list-style-type: none"> <li>• Every year plantation done in available space.</li> </ul>
<b>B.</b>	<b>GENERAL CONDITIONS</b>
<b>i.</b>	<i>The project authority shall adhere to the stipulations made by West Bengal Pollution Control Board (WBPCB) and State Government.</i>
Com	All CTO conditions are being Complied
<b>ii.</b>	<i>No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.</i>
Com	EC for Expansion of Coke Oven Plant from 1.6 MTPA to 2.2 MTPA has been received on 23 <sup>rd</sup> February, 2017 vide F. No. J-11011/284/2007- IA II (I) but as on date no expansion project work has been started. The plant is running at 1.6 mtpa capacity only. No "Consent to Establish" has been applied from WBPCB till date. It is being ensured that the compliance on EC will be submitted to MOEF once the expansion will take place
<b>iii.</b>	<i>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 West Bengal Pollution Control Board (WBPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.</i>
Com	Complying all the conditions stipulated by WBPCB. E.g. the stack emission standard prescribed by WBPCB is 50mg/Nm <sup>3</sup> which is being maintained in last six months..
<b>iv.</b>	<i>Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the Ministry's Regional Office at the Bhubaneswar, WBPCB &amp; CPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.</i>
Com	<ul style="list-style-type: none"> <li>• Different areas have been identified within the factory premises where Ambient Air Quality is being tested at a regular basis.</li> <li>• One Ambient Air Quality monitoring station within the plant has been commissioned.</li> <li>• Different areas have been identified within the factory premises where Ambient Air Quality is being tested at a regular basis by the certified 3<sup>rd</sup> party. The summary is enclosed. <b>ANNEXURE 1</b></li> <li>• Regular noise monitoring also been done by the accredited 3<sup>rd</sup> party.</li> <li>• The half yearly data are being submitted to Ministry's Regional Office at the Bhubaneswar, WBPCB, Haldia office.</li> <li>• The instruments used for ambient air quality monitoring by the accredited 3<sup>rd</sup> party is being calibrated time to time and the calibration certificates are collected from the party.</li> </ul>
<b>v.</b>	<i>The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the</i>

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	<i>standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).</i>
Com	<ul style="list-style-type: none"> <li>The noise level inside the plant has been recorded between specified limit</li> <li>The control measures such as; silencers, enclosures, hoods, rubber pads, have been provided at the appropriate places in the existing plant. The work areas where noise levels are high, earplugs and earmuffs have been provided to reduce the noise exposure.</li> <li>The detail report is enclosed as <b><u>ANNEXURE - 4</u></b></li> </ul>
vi.	<i>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</i>
Com	<ul style="list-style-type: none"> <li>PME (Periodical Medical Examination) has been done for 99% of company employees in FY20. Records are maintained at the Occupational Health Centre. Due to the current COVID pandemic condition the health check-up for FY21 not yet started.</li> <li>Health check up for contractors persons are conducted regularly during the time of the renewal of the respective gate pass.</li> <li>100% checkup happened for contractor employees and records are being maintained at the OHC.</li> </ul>
vii.	<i>All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants shall be implemented</i>
Com	<ul style="list-style-type: none"> <li>The CREP has been implemented by along with Tata Steel - JSR works since this TSL – HMC unit is the stand alone coke making unit only.</li> <li>The company follows the Tata Steel CSR policy</li> <li>Presently Tata Steel works on "Focus Area" approach by adopting Villages / Panchayats / Home so that the Socio – economic development can be visible. Construction of Drinking Water Projects taken up by the unit initially for CSR activity.</li> <li>In FY21 no such CSR activity could have done because of the COVID pandemic situation.</li> </ul>
viii.	<i>The company shall undertake eco-development measures including community welfare measures in the project area.</i>
Com	<ul style="list-style-type: none"> <li>The local people nearly 256 people as permanent employee and over 850 as contractual employees are being employed by the company.</li> <li>As a part of welfare activity, the primary schools, mainly for BPL people, have been considered. Some infrastructural development like making toilets for girls, boundary wall around the school, electrification jobs, school furniture etc are being done.</li> <li>Till now total 19 nos of DWP has been commissioned till FY20 . The Total expenditure for CSR activity till was nearly is Rs. 90 Lakhs</li> <li>Because of the current COVID pandemic situation no DWP has started in FY21</li> </ul>
ix.	<i>The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.</i>
Com	<ul style="list-style-type: none"> <li>A Storm water pond has been developed. The capacity of the pond is 4000 Cu mt (approx). During rain, the roof water from all building like ADM building / Store / Laboratory / pump house are collected in a common storm water drain and this water is collected in the storm water pond. Pipe line has been laid in all 4 rows for using this water for coke quenching and other purposes like gardening, water spraying in the road, water sprinkling system etc.</li> </ul>
x.	<i>Proper house keeping and adequate occupational health programmes shall be taken up.</i>
Com	<ul style="list-style-type: none"> <li>Separate agency has been appointed for removal of scarps and maintaining proper housekeeping within the plant and for cleaning activity.</li> </ul>



**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-110111/284/07- IA II (t)

**Period –April 2020 – September 2020**

	<ul style="list-style-type: none"> <li>• For storage of waste "COLORED BINS" have been provided at various location</li> <li>• Impervious pit has been constructed for storing the hazardous waste</li> <li>• Mobile vacuum cleaning machine is also being used at a regular interval for evacuating the dust particles</li> <li>• TPM initiatives has been started by the shop floor employees in terms of improving the house keeping at shop floor. Identifying KAIZENS and conducting 1s &amp; 2s has been initiated.</li> <li>• Regular Housekeeping Audit is being conducted to improve the housekeeping in the plant</li> </ul>
<b>xi.</b>	<i>A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.</i>
<b>Com</b>	<p>Tata Steel Ltd., HMC Division have an Environmental Management Section (EMS) with a permanent qualified designated employee at a Senior Manager level, reports directly to the General Manager of the unit, to supervise the environmental activities and environmental management programmes. This section co-ordinates and provides necessary services on environmental issues of the entire unit</p> <p>This section is responsible for implementation of Environmental Management Plan and interaction with the environmental regulatory agencies, reviewing policy and planning and mitigates all statutory compliances. This section interacts with State Environment Department, Ministry of Environment &amp; Forests (MoEF), Central Pollution Control Board (CPCB), West Bengal Pollution Control Board (WBPCB) and other environment regulatory agencies.</p> <p>The major responsibilities of the EMS includes:</p> <ul style="list-style-type: none"> <li>• Obtaining Consent from WBPCB.</li> <li>• Environmental monitoring</li> <li>• Analysis of environment data, reports, preparations and transmission of report to statutory authorities, Corporate cell etc.</li> <li>• Compliance with guidelines and statutory requirements.</li> <li>• Coordination with statutory bodies, functional groups of the unit, Corporate Environment Management Cell</li> <li>• Interaction for evolving and implementation of modification programmes to improve the availability / efficiency of pollution control devices / systems.</li> <li>• Environmental Appraisal (Internal) and Environmental Audit.</li> </ul> <p>The Corporate Environment Management Cell of Tata Steel, Jamshedpur works, headed by Chief – Environment and respective Heads – Environment also monitors and supervises the environmental activities of the HMC division at a regular basis.</p> <p>Tata Power has a separate Environment Management Cell for monitoring environmental activities and statutory compliances in terms of power generation and distribution</p>
<b>xii.</b>	<i>Adequate funds shall be allocated towards the capital cost and recurring cost/annum environmental pollution control measures and utilized judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.</i>
<b>Com</b>	In HMC, Separate Fund has been allocated for carrying out continuous water spraying & sprinkling system, mobile vacuum cleaning system, within the plant area for controlling dust, installation & regular maintenance of DF system to control fugitive emission, installing and maintenance of Online ambient air quality monitoring system; monitoring the environment parameters by third party regularly etc. Fund for Green Belt development and CSR activity have also being allocated which are used in a planned manner.

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)

**Period –April 2020 – September 2020**

<b>xiii.</b>	<i>The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.</i>
Com	<ul style="list-style-type: none"> <li>• Environment Statement FY 20 had been submitted to WBPCB on 22 September 2020</li> <li>• Six monthly environmental performance monitoring Report for October 2019 – March 2020 has also been submitted to MOEF, Regional Office, Bhubaneswar via email and hard copy has also been couriered. The same report has been submitted to WBPCB office also.</li> </ul>
<b>xiv.</b>	<i>The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.</i>
Com	<ul style="list-style-type: none"> <li>• All required information has been intimated to WBPCB while obtaining Consent to Operate.</li> <li>• The validity of Consent to Operate is up to 31 May 2022.</li> </ul>
<b>xv.</b>	<p><i>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 W. B. Pollution Control Board / Committee 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 should 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</i></p> <p><i>of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhuvanewar.</i></p>
Com	<ul style="list-style-type: none"> <li>➤ Communication regarding grant of environment clearance were given to the community on 08.03.2008 through newspaper advertisements. Details of which are given below. <ul style="list-style-type: none"> <li>o Financial Express – (English Adv.) / Aajkal – (Bengali Adv.) dated 08.03.2008.</li> </ul> </li> <li>➤ Communication regarding grant of environment clearance for expansion project of Coke Oven Plant from 1.6 MTPA to 2.2 MTPA vide F. No. J-11011//284/2007- IA II (I) were published in the newspapers (TOI, Business Standard, The Telegraph – Kolkata etc) dated 24 February 2018. The compliance of the same was informed to MoEF (Regional Office – Bhubaneswar) through letter dated 11.03.08 by post.</li> </ul>

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)

**Period –April 2020 – September 2020**

**AMBIENT AIR QUALITY SUMMERY REPORT****ANNEXURE - 1**

Name : M/s. Tata Steel Ltd., Hooghly Met Coke Div.

Address : HFC Complex, Patikhali, Haldia, Purba Medinipur

**Ambient Air Quality**

Parameters	Std (µg/m <sup>3</sup> )	LOCATIONS							
		Near OHC / Canteen	LCR#1	Near CCR	In-front of LMC	Rest Room	Near Simplex Gate	Near HMC Store	Near Patikhali Gate
PM <sub>10</sub>	100	52	67	56.8	55.90	69	55	30.4	58
PM <sub>2.5</sub>	60	23	35	24.4	30.70	32	29	18.2	34
SO <sub>2</sub>	80	6.8	11.4	7.5	7.80	7.2	5.3	8.2	6.7
Nox	80	36.6	40.2	20.7	31.90	39.6	36.8	20.6	41.8

**Ambient Air Monitoring for 12 Parameters**

(CPCB, Emission Regulation (Part III), IS: 5182 (Part – 4) 1999, IS: 5182 (Part – 2), 2001, IS: 5182 (Part – 6), 1975, Reaffirmed 1998, UV Photometric Method, Non-Dispersive Infrared Spectrometry Method, Soxlet Extraction and GC analysis, Atomic Absorption Spectrophotometric Method & UV Photometric Method for Ozone monitoring)

**LOCATION – 1 : Logistics Management Centre**

Concentration (µg / m <sup>3</sup> )									Concentration (mg / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )
Parameters	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	Pb	Benzene	NH <sub>3</sub>	Ozone (O <sub>3</sub> )	CO	Benzo(a) Pyrene	As	N
Limits	100	60	80	80	1	5	400	180	2	1	6	2
Result	55.9	30.7	7.8	31.9	< 0.01	< 4.2	17.4	28.5	0.83	< 0.5	< 1.0	< 5

**LOCATION – 2 : Simplex Gate surrounding neighbourhood**

Concentration (µg / m <sup>3</sup> )									Concentration (mg / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )	Concentration (ng / m <sup>3</sup> )
Parameters	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	Pb	Benzene	NH <sub>3</sub>	Ozone (O <sub>3</sub> )	CO	Benzo(a) Pyrene	As	N
Limits	100	60	80	80	1	5	400	180	2	1	6	2
Result	60.2	43.3	7.8	28.6	< 0.01	< 4.2	<10.0	<20.0	0.81	< 0.5	< 1.0	< 5

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)

**Period –April 2020 – September 2020**

**ANNEXURE -2****STACK SUMMERY REPORT**

**Name : M/s. Tata Steel Ltd, Hooghly Met Coke Div.**

**Address : HFC Complex, Patikhali, Haldia, Purba Medinipur**

**STACK PM Level (mg/Nm3) : Online- Opacity meter avg reading**

	Chimney 1AB	Chimney 1CD	Chimney 2AB	Chimney 2CD	Chimney 3AB	Chimney 3CD	Chimney 4AB	Chimney 4CD
Apr-20	32.08	27.32	23.47	31.36	30.81	17.68	19.07	22.86
May-20	31.78	26.17	21.75	28.91	30.55	17.59	15.93	19.93
Jun-20	29.32	28.5	19.21	30.41	31.19	26.5	12.4	23.4
Jul-20	48.17	49.8	31.21	48.2	46	45.08	35.5	40.5
Aug-20	47.44	46.2	45.61	48.64	30.6	48.6	35.7	45
Sep-20	30.6	47.56	40.31	28.9	38.7	42	45.95	48.7

**Stack monitoring – Manual sampling by registered third party**

Date of sampling	Location	Particulate Matter	Sulphur di-oxide (mg/ Nm <sup>3</sup> )	NOx (mg/ Nm <sup>3</sup> )
29.06.2020	Chimney 4AB	32.2	330.8	178.6
29.06.2020	Chimney 3CD	44.9	367	183.7
30.06.2020	Chimney 1AB	33.1	319.6	168.8
30.06.2020	Chimney 3AB	48.6	387.1	192.6
01.07.2020	Chimney 2CD	48.2	411.9	197.2
20.07.2020	Chimney 4CD	46	325.7	182.2
20.07.2020	Chimney 3CD	40.4	261.4	196.2
22.07.2020	Chimney 2AB	49.2	286.7	178.4
18.08.2020	Chimney 3 AB	30.6	295.5	172.3
17.08.2020	Chimney 3 CD	48.6	353.1	178.7
19.08.2020	Chimney 4 AB	35.7	310.5	188.6
16.09.2020	Chimney 1 AB	30.6	265.7	168.5
22.09.2020	Chimney 2 CD	28.9	324.1	168.2
14.09.2020	Chimney 3 AB	38.7	293.5	201.4
16.09.2020	Chimney 4 CD	48.7	283	181.4

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)

**Period –April 2020 – September 2020**

**ANNEXURE****WATER SUMMERY REPORT**

**Name : M/s. Tata Steel Ltd, Hooghly Met Coke Div.**

**Address : HFC Complex, Patikhali, Haldia, Purba Medinipur**

MONTH	WATER CONSUMED PER DAY (HMC)	WATER CONSUMED PER DAY (TPC)	TSL (HMC) WATER CONSUMED (CUBIC MTR/MONTH)	TPC WATER CONSUMED (CUBIC MTR/MONTH)
April 2020	1059.90	6903.43	31797	207103
May 2020	972.93	4003.73	29188	120112
June 2020	1536.87	4969.80	46106	149094
July 2020	1702.58	5229.68	52780	162120
August 2020	1463.84	5226.48	45379	162021
September 2020	1170.81	5716.29	36295	177205

**M/s Tata Steel Ltd, Hooghly Met Coke Division, Haldia**

Compliance to Conditions stipulated in Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi on 29th January, 2007 vide letter# F. No. J-11011//284/07- IA II (I)

**Period –April 2020 – September 2020**

**ANNEXURE -4****AMBIENT NOISE SUMMERY REPORT (DAY & NIGHT)**

**Name : M/s. Tata Steel Ltd, Hooghly Met Coke Div.**

**Address : HFC Complex, Patikhali, Haldia, Purba Medinipur**

<b>Location</b>	<b>Day Time Limit: 75 dBA</b>	<b>Night Time Limit: 70 dBA</b>
<b>Blending Bunker</b>	<b>63.7</b>	<b>61.9</b>
<b>Crusher House (Man-less area)</b>	<b>74.7</b>	<b>70.8</b>
<b>OHC</b>	<b>52.1</b>	<b>40.7</b>
<b>ADM Building</b>	<b>53.7</b>	<b>43.4</b>
<b>Surrounding Community outside Patikhali Gate</b>	<b>54.8</b>	<b>43.2</b>
<b>Surrounding Community outside Simplex Gate</b>	<b>56.8</b>	<b>38.6</b>

Ministry of Environment, Forest & Climate Change  
Eastern Regional Office  
BHUBANESWAR

PART-1

DATA SHEET

1. Project type : Manufacturing of Metallurgical Coke
2. Name of the Project : Proposed Expansion of Coke Oven Plant from 1.6 to 2.2 MTPA
3. Clearance/ Approval letter(s) No. & date : F. No. J-11011/284/2007- IA II (I)  
Dated 23 February 2017
4. Locations
  - a. District(s) : East Medinipore.
  - b. State(s) : West Bengal
  - c. Latitudes/ Longitudes : 22°0' 15" N & 22°7' 15" N / 88°03' 51" E and 88°11' 44" E
5. Address of Correspondence
  - a. Address of concerned Head of Organization (with pin code and Telephone /telex/fax numbers) : Mr. S.K Seth  
General Manager – Hooghly Metcoke Division, Tata Steel Ltd.  
Patikhali, P.O. Haldia Oil Refinery, Haldia, Purba Medinipore  
Tel: 03224-251302  
Fax: 03224-251305
  - b. Address of Head of project (with pin code and Telephone /telex/fax numbers) Email-ID : Mr. S K Seth  
General Manager – Hooghly Metcoke Division, Tata Steel Ltd.  
Patikhali, P.O. Haldia Oil Refinery, Haldia, Purba Medinipore  
Tel: 03224-251302  
Fax: 03224-251305  
Email: sk.seth@tatasteel.com
6. Salient features
  - a. Of the project. : Expansion of Coke Oven from 1.6 MTPA to 2.2 MTPA by commissioning a new row of Battery, capacity of 0.44 MTPA and enhancement of existing capacity by 0.16 MTPA.
  - b. Of the environmental management plans : The plant has proper pollution control measures like Dry fog system, water sprinklers, road swiping system etc. The plant has Greenbelt development plan to achieve 33% of greenbelt area, annual corporate social responsibility plan, Tata Steel Environment management cell manages all environment concerns along with local department. The unit will take

S. K. Seth  
General Manager  
TATA STEEL LIMITED  
Hooghly Mat Coke Division  
HALDIA



all mitigatory measures during construction of the project as mentioned in EIA report

7. Break up of the project areas (in ha)  
Forest area

Non forest area

8. Total  
Break up of the project affected population

: **Not Applicable**

: Proposed project is of expansion within the approved 1.6 MTPA Coke production having an area of about 180 acres i.e. 72.5 hectare.

: Village wise details along with R & R package to be given

Number of oustees **NA**

<u>Homestead</u>	<u>Land oustees</u>	<u>Landless/</u>
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Artisans

SC, ST/ Adivasis Others

**S. K. Seth**  
General Manager  
**TATA STEEL LIMITED**  
Hooghly Met Coke Division  
HALDIA





9. Financial Details

- a. Project cost as originally planned and subsequent revised estimates and the years of price reference : **Project yet to be started. Financial approval of board is under process**
- b. Allocations made for environmental plans, with item wise & year wise break up :
- c. Benefit cost ratio/internal rate of return & the year of assessment :
- d. Weather(c) includes the cost of environmental management as shown in (b) above :
- e. Actual expenditure incurred on the environmental management plans so far : 

<u>Project Expenditure</u>	<u>EMP Expenditure</u>
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10. Status of construction

- a. Date of commencement (actual and/ or planned) :
- b. Date of completion (actual and/ or planned) :
- c. Date of commissioning :

**Construction not yet started**


11. Project process details  
Components

- 1. Engineering and other project components
- 2. Environment Management and Pollution Control components

Dates of  
Construction Completion Commissioning

Please attach a separate sheet, if required

Date: \_\_\_\_\_

  
S. K. Seth  
General Manager  
TATA STEEL LIMITED  
Hooghly Met Coke Division  
HALDIA