



Ref. No.: FAMD/FAPBL/29/FY25

Date:29.11.2024

To,
The Additional Director,
Ministry of Environment and Forest & Climate Change,
Eastern Region Office,
A/3, Chandrasekhar,
Bhubaneswar-751023

Subject: Submission of half-yearly compliance report on the stipulated environmental clearance terms and conditions in respect of Ferro Alloys Plant, Balasore of M/s TATA Steel Ltd., for the period from Apr '2024 to Sept '2024.

Reference:

- 1) J-11011/55/2008-IA II (I), DATED 17th July 2008
- 2) J-11011/519/2010-IA-II (I), DATED 26th February 2013
- 3) J-11011/519/2010-IA-II (I), DATED 20th May 2014

Respected Sir,

We are herewith submitting the six-monthly compliance report on the status of the implementation of the conditions stipulated in environmental clearance awarded to us vide MoEF File No: J-11011/519/2010-IA-II (I) DATED 20th May 2014 in respect of Ferro Alloys Plant, Balasore of M/s TATA Steel Ltd. for the period from Apr '2024 to Sept '2024 for your kind perusal.

This is in reference to the MoEF&CC's notification vide S.O-5845, dt. 28th Nov 2018, the six-monthly compliance report is being submitted only in soft copy mode, shared with your good office at e-mail @ roez.bsr-mef@nic.in.

We believe the above submission is in order.

Thanking you,
Yours faithfully,

P. Sai Swaroop



Sai Swaroop Peela
Head Ferro Alloys Plant, Balasore
Tata Steel Limited
sai.peela@tatasteel.com
Mob: 8093033864

Encl: As above.

Copy To:

- 1) The Member Secretary, State Pollution Control Board, A/118, Nilakantha Nagar, Bhubaneswar, Odisha-751012.
- 2) The Regional Officer, Balasore, Ganeswarpur, P.O – Januganj, Balasore

TATA STEEL LTD.

Ferro Alloys Plant, Balasore, Plot No Z-1 & Z-3, IDCO IID Centre, Somanathpur, Remuna, Balasore, 756019
Regd. Office : Bombay House, 24 Homi Modi Street, Mumbai – 400 001 Tel 912266658282, Fax 912266657724
Corporate Identity Number L27100MH1907PLC000260 website : www.tatasteel.com

Half Yearly Compliance Report**2024****01 Dec(01 Apr - 30 Sep)****Acknowledgement**

Proposal Name	Expansion of Ferro Alloy Plant by installation of Submerged Arc Furnace (16.5 MVA) for production of Si-Mn - 26645 TPA/ Fe-Mn - 29500 TPA/Fe-Si -11400 TPA/ Fe-Cr - 25000 TPA at Plot No. Z-1 IDCO IID Centre Village Somnathpur District Balasore in Odisha		
Name of Entity / Corporate Office	Tata Steel Limited		
Village(s)	N/A		
District	BALESHWAR		
Proposal No.	IA/OR/IND/5459/2012	Category	Industrial Projects - 1
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	ODISHA	Entity's PAN	*****2803M
MoEF File No.	J-11011/519/2010-IA-II(I)	Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	
Reporting Period	01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Limited

	Project Area as per EC Granted	Actual Project Area in Possession
Private	24.54	24.54
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	24.54	24.54

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Silico Manganese/Ferro Manganese/Ferro Silicon/Ferro Chrome	Tons per Annum (TPA)	31/03/2025	56140	36300	56140

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	GREENBELT	As proposed, green belt should be developed in at least 33 percent of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
PPs Submission: Being Complied At present, around 2000 saplings covering an area of around 5 acres are in self-sustaining conditions. Additional plantation is planned for future.		Date: 28/11/2024
2	ENERGY PRESERVATION MEASURES	No charcoal shall be used as fuel. Pet coke shall be used as fuel instead of charcoal from unknown sources.
PPs Submission: Complied No charcoal is being used as fuel.		Date: 28/11/2024
3	AIR QUALITY MONITORING AND PRESERVATION	Continuous monitoring facilities for the process stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/Nm ³ .
PPs Submission: Agreed to Comply Presently, the process stacks have been provided with Gas Cleaning Plant (GCP) of adequate capacity with fume extraction system and bag filters. ID fan and stack of adequate height (45m) is maintained. OCEMS system has already been fixed with the analyzer and documents have already been shared with concerned partner for mapping with OPCB system. Stack monitoring report is attached as Annexure 1.		Date: 28/11/2024
4	AIR QUALITY MONITORING AND PRESERVATION	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
PPs Submission: Complied Presently, ambient Air Quality Standard notified vide G.S.R. No. 826(E) dated 16th November 2009 is followed. For this purpose, four (04) nos. of ambient air monitoring stations have been developed for the monitoring of Ambient Air Quality Parameters as per NAAQS-2009 with a frequency of twice per week. AAQ monitoring report is attached as Annexure 2.		Date: 28/11/2024
5	AIR QUALITY MONITORING AND PRESERVATION	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed. The raw material storage shall be covered.
PPs Submission: Complied Presently, Requisite procuring have been provided for taking care of fugitive dust emissions such as suction hood near the tap hole for collection of fugitive dust during tapping and the same is connected to the Fume Extraction System for subsequent venting through the Gas Cleaning Plant		Date: 28/11/2024
6	WASTE MANAGEMENT	Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico Manganese (Si-Mn). The Fe-Si and Si-Mn slag shall be used in the preparation of building materials.
PPs Submission: Complied		Date:

The slag is being sold for use a building material.		28/11/2024
7	WASTE MANAGEMENT	All the Ferro chrome slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leach ability Potential (TCLP) test. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.
PPs Submission: Agreed to Comply No Ferro Chrome produced during the reporting period thus requirement of TCLP not applicable. Whenever ferro chrome slag is generated, necessary TCLP test will be carried out prior to use of FeCr slag.		Date: 28/11/2024
8	Risk Mitigation and Disaster Management	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministrys Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
PPs Submission: Complied Onsite Emergency Plan available approved by DoFB.		Date: 28/11/2024
9	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministrys Regional Office at Bhubaneswar, SPCB and CPCB.
PPs Submission: Agreed to Comply Since no process-based effluents/trade effluents is getting generated thus requirement of leachate study is not applicable. However, ground water quality is being monitored on regular basis. Ground water quality monitoring report is attached as Annexure 3.		Date: 28/11/2024
10	WATER QUALITY MONITORING AND PRESERVATION	The total water requirement for proposed expansion shall not exceed 139 m3/day. Zero effluent discharge shall be strictly followed and no wastewater should be discharged outside the plant premises.
PPs Submission: Complied Total raw water requirement for Furnace 1 is 148 m3/day and for Furnace 2 is 139 m3/day (Total - 287 m3/day). NOC from CGWA has been obtained for drawl of 287m3/day vide NOC No. CGWA/NOC/IND/REN/2/2020/5687. The consumption of water shall not exceed the permitted volume.		Date: 28/11/2024
11	WATER QUALITY MONITORING AND PRESERVATION	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.
PPs Submission: Complied During monsoon, the rainwater getting collected in the plant drains is being recycled for use in plant process.		Date: 28/11/2024
12	Corporate Environmental Responsibility	At least 5 percent of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministrys Regional Office at Bhubaneswar. Implementation of such program shall be ensured

		accordingly in a time bound manner.
PPs Submission: Complied The condition was applicable for previous owner of the plant during the first few years after grant of EC. After take over, Tata Steel has been carrying out CSR activities in the nearby areas through Tata Steel Foundation.		Date: 28/11/2024
13	Human Health Environment	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
PPs Submission: Complied Necessary infrastructure and facilities for the construction labors were provided during the construction Work.		Date: 28/11/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.
PPs Submission: Complied The information was published in the local Newspaper in Odia and English language. Subsequent to the transfer and amendment of environmental clearance in favour of M/s Tata Steel Limited, information about future clearances and amendments shall be publicised by Tata Steel.		Date: 28/11/2024
2	MISCELLANEOUS	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.
PPs Submission: Complied The activity was completed by M/s Stork Ferro Alloys before the start of the construction Work.		Date: 28/11/2024
3	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Odisha State Pollution Control Board and the State Government.
PPs Submission: Agreed to Comply Stipulations as made by the State and Central Govt. are being adhered to from time to time.		Date: 28/11/2024
4	AIR QUALITY MONITORING AND PRESERVATION	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOX are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/CPCB once in six months.

<p>PPs Submission: Complied Presently four nos. ambient air monitoring stations have been developed for the monitoring of Ambient Air Quality Parameters as per National Ambient Air Quality Standard 2009. Monitoring and analysis are carried out by engaging an MoEFCC as well as NABL Accredited laboratory. Reports are submitted to State Pollution Control Board Odisha on monthly basis. AAQ monitoring report is attached as Annexure 2.</p>		<p>Date: 28/11/2024</p>
5	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.</p>
<p>PPs Submission: Agreed to Comply Since no process-based effluents/trade effluents is getting generated thus requirement of leachate study is not applicable. However, ground water quality is being monitored on regular basis. Ground water quality monitoring report is attached as Annexure 3.</p>		<p>Date: 28/11/2024</p>
6	<p>WATER QUALITY MONITORING AND PRESERVATION</p>	<p>The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.</p>
<p>PPs Submission: Agreed to Comply During monsoon, the rainwater getting collected in the plant drains is being recycled for use in plant process.</p>		<p>Date: 28/11/2024</p>
7	<p>Statutory compliance</p>	<p>The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB / SPCB shall monitor the stipulated conditions.</p>
<p>PPs Submission: Being Complied Last Six-Monthly Compliance report for the period Oct 2023 to March 2024 was submitted to MoEFCC/OSPCB Regional Office both in hard as well as soft copy.</p>		<p>Date: 28/11/2024</p>
8	<p>Statutory compliance</p>	<p>No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.</p>
<p>PPs Submission: Agreed to Comply No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.</p>		<p>Date: 28/11/2024</p>
9	<p>Noise Monitoring & Prevention</p>	<p>The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).</p>
<p>PPs Submission: Complied Ambient Noise is regularly being monitored. Noise levels around the Plant area are being maintained within the standards. Noise Quality monitoring results is attached as Annexure-4.</p>		<p>Date: 28/11/2024</p>
10	<p>Human Health Environment</p>	<p>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</p>

<p>PPs Submission: Agreed to Comply Initial Medical Examination of all employees employed has been ensured. With-in one year all the employees will be covered under periodical medical check-up.</p>		<p>Date: 28/11/2024</p>
11	Corporate Environmental Responsibility	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
<p>PPs Submission: Being Complied Environmental Protection measures as indicated in the EIA and EMP report have been implemented. Socio-economic developmental activities in Health, Education, Sports, agriculture, and infrastructure development are being carried out in the surrounding and periphery villages.</p>		<p>Date: 28/11/2024</p>
12	Corporate Environmental Responsibility	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.
<p>PPs Submission: Complied Separate budget has been earmarked towards capital and operating environment expenditure.</p>		<p>Date: 28/11/2024</p>
13	MISCELLANEOUS	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.
<p>PPs Submission: Complied Environment Clearance copy has been submitted to the concerned Govt. /Private Bodies. Environment Clearance letter has also been uploaded on the Tata Steel website, www.tatasteel.com</p>		<p>Date: 28/11/2024</p>
14	MISCELLANEOUS	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 Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
<p>PPs Submission: Being Complied Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com. Electronic multi-line display board installed to display the criteria pollutant levels namely, PM10, SO2, NOX or critical sectoral parameters, indicated for the projects at main gate of the company for the public domain. The compliance reports are being sent to the Regional Office, MoEFCC and the respective zonal office of CPCB and SPCB.</p>		<p>Date: 28/11/2024</p>
15	Statutory compliance	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 at Bhubaneswar by e-mail.

PPs Submission: Complied
The environmental statement is being submitted every year and the same is also being uploaded on company s website www.tatasteel.com

Date:
28/11/2024

Visit Remarks

Last Site Visit Report Date:

N/A

Additional Remarks:

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.



Half-Yearly Compliance Report

On

Environmental Clearance Conditions For Ferro Alloy Plant - Balasore

Env clearance vide F no J-11011/519/2010-IA-II (I) dated 26/02/2013

Period: April 2024 – September 2024

Submitted By:

M/s. Tata Steel Limited

At- Plot No. Z-1, IDCO, IID Centre,
Village Somnathpur, District Balasore,
Odisha – 756 019

Sl.	Condition	Compliance Status
Specific Conditions		
1	No charcoal shall be used as fuel. Pet coke shall be used as fuel instead of charcoal from unknown sources.	Complied No charcoal is being used as fuel.
2	Continuous monitoring facilities for the process stacks and sufficient air pollution control equipment's viz. fume extraction system with bag filters. ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/NM3	Agreed to Comply Presently, the process stacks have been provided with Gas Cleaning Plant (GCP) of adequate capacity with fume extraction system and bag filters. ID fan and stack of adequate height (45m) is maintained. OCEMS system has already been fixed with the analyzer and documents have already been shared with concerned partner for mapping with OPCB system. Stack monitoring report is attached as Annexure 1 .
3	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R No. 826(E) dated 16th November 2009 shall be followed.	Complied Presently, ambient Air Quality Standard notified vide G.S.R. No. 826(E) dated 16th November 2009 is followed. For this purpose, four (04) nos. of ambient air monitoring stations have been developed for the monitoring of Ambient Air Quality Parameters as per NAAQS-2009 with a frequency of twice per week. AAQ monitoring report is attached as Annexure 2 .
4	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of practice issued by the CPCB shall be followed. The raw material storage shall be covered.	Complied Presently, Requisite procuring have been provided for taking care of fugitive dust emissions such as suction hood near the tap hole for collection of fugitive dust during tapping and the same is connected to the Fume Extraction System for subsequent venting through the Gas Cleaning Plant
5	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the state pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB	Agreed to Comply. Since no process-based effluents/trade effluents is getting generated thus requirement of leachate study is not applicable. However, ground water quality is being monitored on regular basis. Ground water quality monitoring report is attached as Annexure 3 .
6	The total water requirement for proposed expansion shall not exceed 139 m3/day. 'Zero' effluent discharge shall be strictly followed and no wastewater, should be discharged outside the plant premises.	Complied Total raw water requirement for Furnace 1 is 148 m ³ /day and for Furnace 2 is 139 m ³ /day (Total – 287 m ³ /day). NOC from CGWA has been obtained for drawl of 287m ³ /day vide NOC No. CGWA/NOC/IND/REN/2/2020/5687. The consumption of water shall not exceed the permitted volume.

Sl.	Condition	Compliance Status
7	Efforts shall be made to make use of rainwater harvested. If needed capacity of the maximum water should requirement only balance water requirement should be met from other sources.	Complied During monsoon, the rainwater getting collected in the plant drains is being recycled for use in plant process.
8	Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of silico Manganese (Si-Mn). The Fe-Si and Si-Mn slag shall be used in the preparation of building materials.	Complied The slag is being sold for use a building material.
9	All the Ferro Chrome slag shall be used for land filling inside the plant after metal recovery or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.	Agreed to Comply. No Ferro Chrome produced during the reporting period thus requirement of TCLP not applicable. Whenever ferro chrome slag is generated, necessary TCLP test will be carried out prior to use of FeCr slag.
10	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar. SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied. Onsite Emergency Plan available approved by DoFB.
11	As proposed, green belt shall be developed in at least 33% of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Being Complied. At present, around 2000 saplings covering an area of around 5 acres are in self-sustaining conditions. Additional plantation is planned for future.
12	At least 5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.	Complied The condition was applicable for previous owner of the plant during the first few years after grant of EC. After take over, Tata Steel has been carrying out CSR activities in the nearby areas through Tata Steel Foundation.
13	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be	Complied Necessary infrastructure & facilities for the construction labors were provided during the construction Work.

Sl.	Condition	Compliance Status
	removed after completion of the project.	
General Conditions		
1	The project authorities must strictly adhere to the stipulations made by the Odisha State Pollution Control Board and the State Government	Agreed to Comply. Stipulations as made by the State & Central Govt. are being adhered to from time to time.
2	No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	Agreed to Comply No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
3	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOx are anticipated in consultation with the SPCB. Data on Ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/ CPCB once in six months	Complied Presently four nos. ambient air monitoring stations have been developed for the monitoring of Ambient Air Quality Parameters as per National Ambient Air Quality Standard 2009. Monitoring and analysis are carried out by engaging an MoEFCC as well as NABL Accredited laboratory. Reports are submitted to State Pollution Control Board Odisha on monthly basis. AAQ monitoring report is attached as Annexure 2 .
4	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31 st December, 1993 or as amended form time to time. The treated wastewater shall be utilised for plantation purpose.	Agreed to Comply. Since no process-based effluents/trade effluents is getting generated thus requirement of leachate study is not applicable. However, ground water quality is being monitored on regular basis. Ground water quality monitoring report is attached as Annexure 3 .
5	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) 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. 75dBA (daytime) and 70dBA (night-time)	Complied Ambient Noise is regularly being monitored. Noise levels around the Plant area are being maintained within the standards. Noise Quality monitoring results is attached as Annexure-4 .
6	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the factories act.	Agreed to Comply. Initial Medical Examination of all employees employed has been ensured. With-in one year all the employees will be covered under periodical medical check-up.
7	The company shall develop rainwater harvesting structure to harvest the rainwater for utilisation in the lean season besides recharging the ground water table.	Agreed to Comply. During monsoon, the rainwater getting collected in the plant drains is being recycled for use in plant process.
8	The project proponent shall also comply with all the environmental protection measures and safeguards	Being Complied. Environmental Protection measures as indicated in the EIA and EMP report have been implemented.

Sl.	Condition	Compliance Status
	recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Socio-economic developmental activities in Health, Education, Sports, agriculture, and infrastructure development are being carried out in the surrounding and periphery villages.
9	Requisite amount shall be earmarked towards capital cost and recurring cost/ annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	Complied Separate budget has been earmarked towards capital and operating environment expenditure.
10	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied. Environment Clearance copy has been submitted to the concerned Govt./Private Bodies. Environment Clearance letter has also been uploaded on the Tata Steel website, www.tatasteel.com
11	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 Bhubaneswar, the respective Zonal office of CPCB and the SPCB. The Criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameter, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Being Complied. Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com . Electronic multi-line display board installed to display the criteria pollutant levels namely, PM10, SO2, NOX or critical sectoral parameters, indicated for the projects at main gate of the company for the public domain. The compliance reports are being sent to the Regional Office, MoEFCC and the respective zonal office of CPCB and SPCB.
12	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	Being Complied. Last Six-Monthly Compliance report for the period Oct'2023 to March'2024 was submitted to MoEFCC/OSPCB Regional Office both in hard as well as soft copy.

Sl.	Condition	Compliance Status
	copies as well as by email) to the Regional office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of the Ministry at Bhubaneswar/ CPCB/ SPCB shall monitor the stipulated conditions.	
13	The environmental statement for each financial year ending 31st March in Form-V as 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 the company along with the status of compliance of Environmental Conditions and shall also be sent to the respective Regional Office of the MoEF at Bhubaneswar by e-Mail.	Complied. The environmental statement is being submitted every year and the same is also being uploaded on company's website www.tatasteel.com
14	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhubaneswar.	Complied. The information was published in the local Newspaper in Odia and English language. Subsequent to the transfer and amendment of environmental clearance in favour of M/s Tata Steel Limited, information about future clearances and amendments shall be publicised by Tata Steel.
15	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.	Complied. The activity was completed by M/s Stork Ferro Alloys before the start of the construction Work.



Ref : Envlab/24-25/TR-12397

Date : 11.10.2024

SIX MONTH COMPLIANCE REPORT STATIONARY EMISSION MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024

1. Name of Industry : Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling Location : ST-I Stack attached to Arc Furnace
3. Name of sampling Instrument : Vayubodhan Stack Sampler VSS 2
4. Sample Collected by : VCSPL Representative

Parameters	Unit of Measurement	APR 2024	MAY 2024	JUN 2024	JUL 2024	AUG 2024	SEP 2024	AVG	Standard MoEF & CPCB
Stack Temperature		104	91	86.7	73.2	71.9	73.1	83.3	--
Velocity of Flue Gas	^o C	10.6	11.19	12.3	8.59	7.9	8.6	9.9	--
Concentration of Particulate Matter as PM	m/sec	38.1	39.11	36.6	31.8	29.3	32.1	34.5	50
Sulphur dioxide as SO ₂	mg/Nm ³	41.9	41.9	34.8	35.6	30.8	27.8	35.5	600
Oxides of Nitrogen as NO _x	mg/Nm ³	28.7	28.7	30.9	33.6	31.2	33.5	31.1	300
Carbon Monoxide as CO	mg/Nm ³	41.2	41.2	35.4	27.5	25.3	19.9	31.8	--


Prepared By: 


Reviewed By: 



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref : Envlab/24-25/TR-12392

Date :11.10.2024

SIX MONTH COMPLIANCE REPORT AAQ MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024 (CORE ZONE)

1. Name of Industry	:	M/s Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling Location	:	Monitoring Station ID: AAQMS-1 (Near 11KVA Substation).
3. Monitoring Instruments	:	RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by	:	VCSPL representative in presence of TATA representative.

Month	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR 2024	64.5	33.5	12.0	20.0	11.9	0.8	25.0	BDL	BDL	BDL	BDL	BDL
MAY 2024	64.4	32.8	11.7	20.8	11.9	0.7	24.5	BDL	BDL	BDL	BDL	BDL
JUN 2024	63.4	31.8	13.5	20.2	10.0	0.7	24.4	BDL	BDL	BDL	BDL	BDL
JUL 2024	59.5	27.1	11.2	16.1	9.4	0.6	23.4	BDL	BDL	BDL	BDL	BDL
AUG 2024	58.6	29.6	10.7	15.7	8.4	0.6	23.8	BDL	BDL	BDL	BDL	BDL
SEP 2024	58.0	29.2	9.0	14.5	8.5	0.7	24.2	BDL	BDL	BDL	BDL	BDL
Average	61.4	30.7	11.4	17.9	10	0.68	24.1	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂< 4 µg/m³, NO_x< 6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As < 1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1 mg/m³,


Prepared By 


Reviewed By 



Ref : Envlab/24-25/TR-12393


Date :11.10.2024

SIX MONTH COMPLIANCE REPORT AAQ MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024 (CORE ZONE)

1. Name of Industry	:	M/s Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling Location	:	Monitoring Station ID:AAQMS-3 (Near GCP)
3. Monitoring Instruments	:	RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by	:	VC SPL representative in presence of TATA representative.

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR 2024	64.5	32.7	12.6	21.3	12.7	0.8	25.3	BDL	BDL	BDL	BDL	BDL
MAY 2024	65.2	34.2	13.0	21.6	11.6	0.8	25.0	BDL	BDL	BDL	BDL	BDL
JUN 2024	64.3	32.8	13.5	22.0	9.9	0.7	24.1	BDL	BDL	BDL	BDL	BDL
JUL 2024	57.6	25.7	10.4	15.5	9.5	0.6	23.9	BDL	BDL	BDL	BDL	BDL
AUG 2024	58.6	29.2	10.3	14.9	9.5	0.6	23.8	BDL	BDL	BDL	BDL	BDL
SEP 2024	58.9	30.3	10.4	14.8	10.1	0.7	23.8	BDL	BDL	BDL	BDL	BDL
Average	61.5	30.8	11.7	18.4	10.6	0.7	24.3	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improve d West and Geake method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂< 4 µg/m³, NO_x< 6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As < 1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO-<0.1 mg/m³.


Prepared By




Reviewed By





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref : Envlab/24-25/TR-12394

Date :11.10.2024

SIX MONTH COMPLIANCE REPORT AAQ MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024 (CORE ZONE)

5. Name of Industry	:	M/s Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
6. Sampling Location	:	Monitoring Station ID:AAQMS-3 (Near Main gate)
7. Monitoring Instruments	:	RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
8. Sample collected by	:	VCSPL representative in presence of TATA representative.

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR 2024	65.0	33.4	12.2	21.5	12.0	0.8	24.4	BDL	BDL	BDL	BDL	BDL
MAY 2024	64.5	33.8	11.8	21.1	11.7	0.8	23.9	BDL	BDL	BDL	BDL	BDL
JUN 2024	63.7	31.9	12.6	19.4	10.3	0.7	24.8	BDL	BDL	BDL	BDL	BDL
JUL 2024	58.5	27.6	11.2	15.2	9.9	0.6	24.1	BDL	BDL	BDL	BDL	BDL
AUG 2024	56.8	28.8	9.1	13.4	10.0	0.6	23.1	BDL	BDL	BDL	BDL	BDL
SEP 2024	55.7	27.1	8.7	13.0	9.8	0.6	22.5	BDL	BDL	BDL	BDL	BDL
Average	60.7	30.4	10.9	17.3	10.6	0.68	23.8	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Geake method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂< 4 µg/m³, NO_x< 6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As < 1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1 mg/m³,


Prepared By 


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ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref : Envlab/24-25/TR-12395

Date :11.10.2024

SIX MONTH COMPLIANCE REPORT AAQ MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024 (CORE ZONE)

1. Name of Industry	:	M/s Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling Location	:	Monitoring Station ID:AAQMS-4 (Near Admin Building)
3. Monitoring Instruments	:	RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by	:	VCSPL representative in presence of TATA representative.

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR 2024	64.9	33.7	13.5	21.9	11.8	0.8	24.7	BDL	BDL	BDL	BDL	BDL
MAY 2024	64.8	33.3	12.8	21.9	12.5	0.7	24.6	BDL	BDL	BDL	BDL	BDL
JUN 2024	61.6	30.0	12.6	20.5	11.3	0.7	24.2	BDL	BDL	BDL	BDL	BDL
JUL 2024	57.8	25.8	11.4	16.3	10.1	0.6	23.9	BDL	BDL	BDL	BDL	BDL
AUG 2024	55.6	28.1	9.9	12.9	9.0	0.6	22.7	BDL	BDL	BDL	BDL	BDL
SEP 2024	55.1	26.9	9.1	13.6	9.5	0.5	22.5	BDL	BDL	BDL	BDL	BDL
Average	59.9	29.6	11.5	17.9	10.7	0.65	23.8	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Geake method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂< 4 µg/m³, NO_x< 6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As < 1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1 mg/m³,

Prepared By  

Reviewed By  



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref : Envlab/24-25/TR-12396

Date :11.10.2024

SIX MONTH COMPLIANCE REPORT AAQ MONITORING REPORT FOR APRIL 2024 TO SEPTEMBER 2024 (BUFFER ZONE)

1. Name of Industry : M/s Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Monitoring Instruments : RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Analyzer & VOC Sampler
3. Sample collected by : VCSPL Representative in presence of TATA Representative

Monitoring Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
BZ-1: Narharipur Village												
APR 2024	64.7	33.7	10.8	19.9	BDL	0.85	BDL	BDL	BDL	BDL	BDL	BDL
MAY 2024	62.5	29.6	9.8	18.6	BDL	0.69	BDL	BDL	BDL	BDL	BDL	BDL
JUN 2024	57.6	25.6	10.2	15.2	BDL	0.56	BDL	BDL	BDL	BDL	BDL	BDL
JUL 2024	52.3	23.4	6.5	10.2	BDL	0.55	BDL	BDL	BDL	BDL	BDL	BDL
AUG 2024	51.2	25.3	8.2	11.1	BDL	0.51	BDL	BDL	BDL	BDL	BDL	BDL
SEP 2024	49.6	23.8	7.6	10.3	BDL	0.48	BDL	BDL	BDL	BDL	BDL	BDL
Average	56.3	26.9	8.9	14.2	BDL	0.61	BDL	BDL	BDL	BDL	BDL	BDL
BZ-2:Somnathpur Village												
APR 2024	63.8	31.9	12.6	18.4	BDL	0.67	BDL	BDL	BDL	BDL	BDL	BDL
MAY 2024	60.8	30.2	7.6	20.3	BDL	0.76	BDL	BDL	BDL	BDL	BDL	BDL
JUN 2024	59.3	28.1	8.9	13.2	BDL	0.62	BDL	BDL	BDL	BDL	BDL	BDL
JUL 2024	51.9	25.1	8.4	12.9	BDL	0.51	BDL	BDL	BDL	BDL	BDL	BDL
AUG 2024	48.9	23.4	6.9	9.1	BDL	0.55	BDL	BDL	BDL	BDL	BDL	BDL
SEP 2024	51.5	22.9	9.1	8.6	BDL	0.53	BDL	BDL	BDL	BDL	BDL	BDL
Average	56.0	26.9	8.9	13.8	BDL	0.61	BDL	BDL	BDL	BDL	BDL	BDL
BZ-3:Badagaa Village												
APR 2024	65.9	36.2	11.7	13.3	BDL	0.74	BDL	BDL	BDL	BDL	BDL	BDL
MAY 2024	60.4	27.5	10.2	19.4	BDL	0.66	BDL	BDL	BDL	BDL	BDL	BDL
JUN 2024	56.8	26.3	9.7	12.7	BDL	0.58	BDL	BDL	BDL	BDL	BDL	BDL
JUL 2024	50.8	22.33	7.6	10.1	BDL	0.52	BDL	BDL	BDL	BDL	BDL	BDL
AUG 2024	53.1	25.2	7.3	10.3	BDL	0.52	BDL	BDL	BDL	BDL	BDL	BDL
SEP 2024	50.6	22.4	7.2	9.4	BDL	0.49	BDL	BDL	BDL	BDL	BDL	BDL
Average	56.3	26.7	8.9	12.5	BDL	0.59	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	4	--	100	60	80	80	4	--
Testing Method	Gravimetric	Gravimetric	Improved West and Geake method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values :SO₂< 4 µg/m³, NO_x< 9 µg/m³, O₃<4 µg/m³, CO-<0.1 mg/m³, NH₃ <20 µg/m³, C₆H₆<0.001 µg/m³, BaP<0.002 ng/m³, Ni<0.01 ng/m³, Pb<0.001 µg/m³, As < 0.001 ng/m³.

Prepared By  

Reviewed By  



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref :Envlab/24-25/R-12476

Date :11.10.2024

SIX MONTH COMPLIANCE OF DRINKING WATER QUALITY APR 24 TO SEP 24

- Name of Industry : Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
- Sampling location : Near Pump House (Aquaguard Water)

Sl. No.	Parameter	Testing Methods	Unit	Standard as per IS -10500:2012 Amended on 2015 & 2018		Analysis Results
				Acceptable Limit	Permissible Limit	
Essential Characteristics						
1	Colour	APHA 2120 B, C	Hazen	5	15	<5
2	Odour	APHA 2150 B	--	Agreeable	Agreeable	Agreeable
3	Taste	APHA 2160 C	--	Agreeable	Agreeable	Agreeable
4	Turbidity	APHA 2130 B	NTU	1	5	<1
5	pH Value (at 25°C)	APHA 4500H ⁺ B	--	6.5-8.5	No relaxation	7.49
6	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	200	600	118
7	Iron (as Fe)	APHA 3500Fe, B	mg/l	1	No relaxation	0.21
8	Chloride (as Cl)	APHA 4500Cl ⁻ B	mg/l	250	1000	31.5
9	Residual, free Chlorine	APHA 4500Cl, B	mg/l	0.2	1	0.37
Desirable Characteristics						
10	Dissolved Solids	APHA 2540 C	mg/l	500	2000	151
11	Calcium (as Ca)	APHA 3500Ca B	mg/l	75	200	35.3
12	Magnesium (as Mg)	APHA 3500Mg B	mg/l	30	100	6.47.4
13	Copper (as Cu)	APHA 3111 B,C	mg/l	0.05	1.5	<0.02
14	Manganese (as Mn)	APHA 3500Mn B	mg/l	0.1	0.3	<0.025
15	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	200	400	6.3
16	Nitrate (as NO ₃)	APHA 4500 NO ₃ ⁻ E	mg/l	45	No relaxation	0.5
17	Fluoride (as F)	APHA 4500F ⁻ C	mg/l	1.0	1.5	0.43
18	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.001	0.002	<0.001
19	Mercury (as Hg)	APHA 3500 Hg	mg/l	0.001	No relaxation	<0.001
20	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.003	No relaxation	<0.003
21	Selenium (as Se)	APHA 3500 Se C	mg/l	0.01	No relaxation	<0.01
22	Arsenic (as As)	APHA 3114 B	mg/l	0.01	No relaxation	<0.01
23	Cyanide (as CN)	APHA 4500 CN ⁻ C,D	mg/l	0.05	No relaxation	<0.05
24	Lead (as Pb)	APHA 3111 B,C	mg/l	0.01	No relaxation	<0.01
25	Zinc (as Zn)	APHA 3111 B,C	mg/l	5.0	15.0	<0.03
26	Anionic Detergents (as MBAS)	APHA 5540 C	mg/l	0.2	1.0	<0.2
27	Total Chromium (as Cr)	APHA 3500Cr B	mg/l	0.05	No relaxation	<0.05
28	Mineral Oil	APHA 5220 B	mg/l	0.5	No relaxation	BDL
29	Alkalinity	APHA 2320 B	mg/l	200	600	91.5
30	Aluminium as(Al)	APHA 3500Al B	mg/l	0.03	0.2	<0.03
31	Boron (as B)	APHA 4500B, B	mg/l	0.5	1.0	<0.5
32	Poly Aromatic Hydrocarbon as PAH	APHA 6440 B	mg/l	0.0001	No relaxation	<0.0001
33	Pesticide	APHA 6630 B,C	µg/l	--	--	Absent
34	E Coli	IS 15185:2016	per 100 ml	shall not be detectable in any 100 ml sample	shall not be detectable in any 100 ml sample	Absent
35	Total Coli forms	IS 15185:2016	per 100 ml	shall not be detectable in any 100 ml sample	--	Absent

BDL (Below Detectable Limits) Values:Turbidity<1NTU, Cu<0.02 mg/l, Mn<0.025 mg/l, C₆H₅OH<0.05 mg/l, Hg<0.004 mg/l, Cd<0.03 mg/l, Se<0.001 mg/l, As<0.004 mg/l, Pb<0.02 mg/l, Zn<0.03 mg/l, Cr⁺⁶<0.01 mg/l, Al<0.1 mg/l, B<0.1 mg/l, Anionic Detergents<0.2mg/l, PAH<0.0001 mg/l.

Reviewed By



Verified By





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Certified

Ref :Envlab/24-25/R-12477

Date :11.10.2024

SIX MONTH COMPLIANCE OF DRINKING WATER QUALITY APR 24 TO SEP 24

1. Name of Industry	:	Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling location	:	Near Canteen (Aquaguard water)

Sl. No.	Parameter	Testing Methods	Unit	Standard as per IS -10500:2012 Amended on 2015 & 2018		Analysis Results
				Acceptable Limit	Permissible Limit	
Essential Characteristics						
1	Colour	APHA 2120 B, C	Hazen	5	15	<5
2	Odour	APHA 2150 B	--	Agreeable	Agreeable	Agreeable
3	Taste	APHA 2160 C	--	Agreeable	Agreeable	Agreeable
4	Turbidity	APHA 2130 B	NTU	1	5	<1
5	pH Value (at 25°C)	APHA 4500H ⁺ B	--	6.5-8.5	No relaxation	6.8
6	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	200	600	111.5
7	Iron (as Fe)	APHA 3500Fe, B	mg/l	1	No relaxation	0.39
8	Chloride (as Cl)	APHA 4500Cl ⁻ B	mg/l	250	1000	28.3
9	Residual, free Chlorine	APHA 4500Cl, B	mg/l	0.2	1	0.44
Desirable Characteristics						
10	Dissolved Solids	APHA 2540 C	mg/l	500	2000	139.8
11	Calcium (as Ca)	APHA 3500Ca B	mg/l	75	200	35.7
12	Magnesium (as Mg)	APHA 3500Mg B	mg/l	30	100	6.8
13	Copper (as Cu)	APHA 3111 B,C	mg/l	0.05	1.5	<0.02
14	Manganese (as Mn)	APHA 3500Mn B	mg/l	0.1	0.3	<0.025
15	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	200	400	6.1
16	Nitrate (as NO ₃)	APHA 4500 NO ₃ ⁻ E	mg/l	45	No relaxation	0.44
17	Fluoride (as F)	APHA 4500F ⁻ C	mg/l	1.0	1.5	0.57
18	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.001	0.002	<0.001
19	Mercury (as Hg)	APHA 3500 Hg	mg/l	0.001	No relaxation	<0.001
20	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.003	No relaxation	<0.003
21	Selenium (as Se)	APHA 3500 Se C	mg/l	0.01	No relaxation	<0.01
22	Arsenic (as As)	APHA 3114 B	mg/l	0.01	No relaxation	<0.01
23	Cyanide (as CN)	APHA 4500 CN ⁻ C,D	mg/l	0.05	No relaxation	<0.05
24	Lead (as Pb)	APHA 3111 B,C	mg/l	0.01	No relaxation	<0.01
25	Zinc (as Zn)	APHA 3111 B,C	mg/l	5.0	15.0	<0.03
26	Anionic Detergents (as MBAS)	APHA 5540 C	mg/l	0.2	1.0	<0.2
27	Chromium (as Cr ⁺⁶)	APHA 3500Cr B	mg/l	0.05	No relaxation	<0.05
28	Mineral Oil	APHA 5220 B	mg/l	0.5	No relaxation	<0.5
29	Alkalinity	APHA 2320 B	mg/l	200	600	89.2
30	Aluminium as(Al)	APHA 3500Al B	mg/l	0.03	0.2	<0.03
31	Boron (as B)	APHA 4500B, B	mg/l	0.5	1.0	<0.5
32	Poly Aromatic Hydrocarbon as PAH	APHA 6440 B	mg/l	0.0001	No relaxation	<0.0001
33	Pesticide	APHA 6630 B,C	µg/l	--	--	Absent
34	E Coli	APHA 9221-F	MPN/100 ml	shall not be detectable in any 100 ml sample	--	Absent
35	Total Coli forms	APHA 9221-B	MPN/100 ml	shall not be detectable in any 100 ml sample	--	Absent

Note: ND: Not Detected.

BDL (Below Detectable Limits) Values:Turbidity<1NTU, Cu<0.02 mg/l, Mn<0.025 mg/l, C₆H₅OH<0.05 mg/l, Hg<0.004 mg/l, Cd<0.03 mg/l, Se<0.001 mg/l, As<0.004 mg/l, Pb<0.02 mg/l, Zn<0.03 mg/l, Cr⁺⁶<0.01 mg/l, Al<0.1 mg/l, B<0.1 mg/l, Anionic Detergents<0.2mg/l, PAH<0.0001 mg/l.

Reviewed By 


Verified By 




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Ref :Envlab/24-25/R-12478

Date :11.10.2024

SIX MONTH COMPLIANCE OF GROUND WATER QUALITY APR 24 TO SEP 24

1. Name of Industry	:	Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling location	:	Near Zigging Area

Sl. No.	Parameter	Testing Methods	Unit	Standard as per IS -10500:2012 Amended on 2015 & 2018		Analysis Results
				Acceptable Limit	Permissible Limit	
Essential Characteristics						
1	Colour	APHA 2120 B, C	Hazen	5	15	<5
2	Odour	APHA 2150 B	--	Agreeable	Agreeable	Agreeable
3	Taste	APHA 2160 C	--	Agreeable	Agreeable	Agreeable
4	Turbidity	APHA 2130 B	NTU	1	5	<1
5	pH Value (at 25°C)	APHA 4500H ⁺ B	--	6.5-8.5	No relaxation	7.13
6	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	200	600	120.5
7	Chloride (as Cl)	APHA 4500Cl ⁻ B	mg/l	250	1000	31.6
8	Residual, free Chlorine	APHA 4500Cl ₂ B	mg/l	0.2	1	BDL
9	Dissolved Solids	APHA 2540 C	mg/l	500	2000	121
11	Calcium (as Ca)	APHA 3500Ca B	mg/l	75	200	31.7
12	Magnesium (as Mg)	APHA 3500Mn B	mg/l	30	100	12.9
13	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	200	400	5.1
14	Nitrate (as NO ₃)	APHA 4500 NO ₃ ⁻ E	mg/l	45	No relaxation	0.047
15	Fluoride (as F)	APHA 4500F ⁻ C	mg/l	1.0	1.5	<1
16	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.001	0.002	<0.001
17	Cyanide (as CN)	APHA 4500 CN ⁻ C,D	mg/l	0.05	No relaxation	<0.05
18	Mineral Oil	APHA 5220 B	mg/l	0.5	No relaxation	<0.5
19	Alkalinity	APHA 2320 B	mg/l	200	600	125
20	Aluminium as(Al)	APHA 3500Al B	mg/l	0.03	0.2	<0.03
21	Boron (as B)	APHA 4500B, B	mg/l	0.5	1.0	<0.5
22	Poly Aromatic Hydrocarbon as PAH	APHA 6440 B	mg/l	0.0001	No relaxation	<0.0001
23	Pesticide	APHA 6630 B,C	µg/l	--	--	<10
24	E Coli	APHA 9221-F	MPN/100 ml	shall not be detectable in any 100 ml sample	--	<1.1
25	Total Coli forms	APHA 9221-B	MPN/100 ml	shall not be detectable in any 100 ml sample	--	<1.1
Trace Metals						
01	Iron (as Fe)	APHA 3500Fe, B	mg/l	1	No relaxation	0.12
02	Manganese(Mn)	APHA 3500Mg B	mg/l	0.1	0.3	<0.05
03	Copper (as Cu)	APHA 3111 B,C	mg/l	0.05	1.5	<0.05
04	Mercury (as Hg)	APHA 3500 Hg	mg/l	0.001	No relaxation	<0.001
05	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.003	No relaxation	<0.003
06	Selenium (as Se)	APHA 3500 Se C	mg/l	0.01	No relaxation	<0.01
07	Arsenic (as As)	APHA 3114 B	mg/l	0.01	No relaxation	<0.01
08	Lead (as Pb)	APHA 3111 B,C	mg/l	0.01	No relaxation	<0.01
09	Zinc (as Zn)	APHA 3111 B,C	mg/l	5.0	15.0	<0.03
10	Chromium (as Cr ⁺⁶)	APHA 3500Cr B	mg/l	--	--	<0.01

BDL (Below Detectable Limits) Values:Turbidity<1NTU, Cu<0.02 mg/l, Mn<0.025 mg/l, C₆H₅OH<0.05 mg/l, Hg<0.004 mg/l, Cd<0.03 mg/l, Se<0.001 mg/l, As<0.004 mg/l, Pb<0.02 mg/l, Zn<0.03 mg/l, Cr⁺⁶<0.01 mg/l, Al<0.1 mg/l, B<0.1 mg/l, Anionic Detergents<0.2mg/l, PAH<0.0001 mg/l.

Reviewed By 


Verified By 




Visiontek Consultancy Services Pvt. Ltd.

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Ref : Envlab/24-25/TR-12479

Date :11.10.2024

SURFACE WATER QUALITY ANALYSIS REPORT FOR APR 24 TO SEP 24

1. Name of Industry	:	Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Sampling location	:	Near Darakhuli, Naraharipur (Pond water)
3. Date of sampling	:	27.09.2023
4. Date of analysis	:	27.09.2023 to 03.09.2023
5. Sample collected by	:	VCSPL Representative

Sl. No.	Parameter	Testing Methods	Unit	Standards as per IS-2296:1992 Class - 'C'	Analysis Results
1	Colour	APHA 2120 B, C	Hazen	300	CL
2	Turbidity	APHA 2130 B	NTU	---	<1
3	pH Value (at 25°C)	APHA 4500H ⁺ B	--	6.0-9.0	7.42
4	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	---	137
5	Iron (as Fe)	APHA 3500Fe, B	mg/l	0.5	0.45
6	Chloride (as Cl)	APHA 4500Cl B	mg/l	600	34.8
7	Dissolved Solids	APHA 2540 C	mg/l	1500	270.8
8	Calcium (as Ca)	APHA 3500Ca B	mg/l	---	34.2
9	Magnesium (as Mg)	APHA 3500Mg B	mg/l	---	12.5
10	Copper (as Cu)	APHA 3111 B,C	mg/l	1.5	BDL
11	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	400	13.1
12	Nitrate (as NO ₃)	APHA 4500 NO ₃ ⁻ E	mg/l	50	5.6
13	Fluoride (as F)	APHA 4500F ⁻ C	mg/l	1.5	0.72
14	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.005	BDL
15	Mercury (as Hg)	APHA 3500 Hg	mg/l	---	BDL
16	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.01	BDL
17	Selenium (as Se)	APHA 3500 Se C	mg/l	0.05	BDL
18	Arsenic (as As)	APHA 3114 B	mg/l	0.2	BDL
19	Cyanide (as CN)	APHA 4500 CN ⁻ C,D	mg/l	0.05	BDL
20	Lead (as Pb)	APHA 3111 B,C	mg/l	0.1	BDL
21	Zinc (as Zn)	APHA 3111 B,C	mg/l	15	0.073
22	Anionic Detergents (as MBAS)	APHA 5540 C	mg/l	0.2	<0.2
23	Chromium (as Cr ⁺⁶)	APHA 3500Cr B	mg/l	0.05	BDL
24	Alkalinity	APHA 2320 B	mg/l	---	166.8
25	Pesticide	APHA 6630 B,C	µg/l	--	Absent
26	Dissolved Oxygen (as DO)	APHA 4500 O-C	mg/l	4.0	6.1
27	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	IS 3025(P-44) : 1993 RA 2003	mg/l	3.0	3.8
28	Chemical Oxygen Demand (as COD)	APHA 23 RD Ed,2017: 5220 C	mg/l	---	11.9
29	Total Suspended Solids	APHA 2540 C	mg/l	---	26.4
30	Silica as SiO ₂	APHA 23 RD Ed,2017: 4500 SiO ₂ C	mg/l	---	3.0
31	Total Coli forms	APHA 9221-B	MPN/100 ml	5000	52.5

BDL (Below Detectable Limits) Values: Turbidity<1NTU, Cu<0.02 mg/l, Mn<0.025 mg/l, C₆H₅OH<0.05 mg/l, Hg<0.004 mg/l, Cd<0.03 mg/l, Se<0.001 mg/l, As<0.004 mg/l, Pb<0.02 mg/l, Zn<0.03 mg/l, Cr⁺⁶<0.01 mg/l, Al<0.1 mg/l, B<0.1 mg/l, Anionic Detergents<0.2mg/l, PAH<0.0001 mg/l.

Reviewed By



Verified By





Ref : Envlab/24-25/TR-12474

Date :11.10.2024

SIX MONTH COMPLIANCE NOISE LEVEL MONITORING REPORT

1. Name of Industry	:	Ferro Alloys Plant Baleswar, (M/s TATA Steel Limited); Baleswar.
2. Monitoring Instruments	:	Noise Meter
3. Sample collected by	:	VCSPL Representative in presence of TATA Representative

Location ID	Location	Noise Level in SPL
11 KVA Substation		
N-01	Shift Office	65.4
N-02	Work Shop	65.1
N-03	LT Room	70.9
N-04	HR Room	70.2
Furnished Production Yard		
N-05	Infront of rest Shed	71.9
N-06	Breaking Yard (Cast House corner)	69.7
N-07	Hot Metal Dumping Yard	67.8
N-08	Metal Loading Area	68.4
Cast House		
N-09	Infront Of FCE-1 & T.H-2	66.8
N-10	Middle Person	69.2
N-11	Infront of FCE-2	65.3
N-12	Buffer Man Standing Area	64.9
N-13	FCE-2 Slag Dump Area	69.1
Road		
N-14	Infron of cast House	66.2
N-15	Infront of GCP	68.6
N-16	Infront of daybin	63.3
N-17	RM Yard	64.4
FCE Building		
N-18	Near Hoist	68.8
N-19	In Between 2 FCE	68.1
N-20	Near Staircase	67.3

1st Floor FCE		
N-21	Near FCE-2	60.6
N-22	In between 2FCE	64.7
N-23	Stair Case	60.8
N-24	Near FCE-1	58.8
N-25	FCE Control Room	58.6
2nd Floor FCE		
N-26	Stair case	67.2
N-27	Transformer Room	66.6
N-28	Near Water Mainfood	67.5
N-29	Between 2 FCE	65.5
N-30	FCE-2	61.2
3rd floor FCE		
N-31	Stair case	59.8



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N-32	FCE-2 MCC Room	58.5
N-33	FCE-1 MCC Room	59.4
N-34	Infront of MCC Room	58.6
4th floor FCE		
N-36	Casing Manufacture-2	57.9
N-37	Casing manufacture-1	59.5
5th floor FCE		
N-38	Rotary Conveyor-2	58.8
N-39	Rotary Conveyor-1	58.6
Pump House		
N-40	Panel Room	62.6
N-41	Pump Room	63.7
GCP		
N-42	Dust Loading Area	63
N-43	GCP Control Room	61.7
N-44	Silo Dust Release area	62.6
N-45	Bag House-1	62.3
N-46	Bag house-2	60.9
N-47	Compressor Room	60.6
DayBin 1st Floor		
N-48	BC-8 FCE-1 & 2	63.9

DayBin 2nd Floor		
N-49	Bin-3	55.8
N-50	Bin-9	55.2
N-51	Bin-6	60.2
N-52	Bin-10	58.7
DayBin 3rd Floor		
N-53	Entrance	59.5
N-54	Carraige-1	57.4
N-55	Carraige-2	58.2
N-56	backside	58.3
Jigging		
N-57	Pond	64.3
N-58	Fab Yard	61.9
Screening House		
N-59	Ground Floor	61.1
N-60	1 st floor	62.7
N-61	2 nd floor	59.8
Plant side		
N-62	Dolomite stack	69
N-63	Store	69.3
N-64	Lab	68.6
N-65	Admin Room	63.1
Industrial Noise Standard		75.0




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Ref : Envlab/24-25/TR-12475

Date : 11.10.2024

SIX MONTH COMPLIANCE ILLUMINATION ANALYSIS REPORT

Location ID	Location	Measuring in LUX	Standard For IS 6665-1972
11 KVA Substation			
L-01	Shift Office	79.2	150
L-02	Work Shop	90.8	300
L-03	LT Room	59.9	100
L-04	HR Room	67.8	100
Furnished Production Yard			
L-05	Infront of rest Shed	60.6	100
L-06	Breaking Yard (Cast House corner)	87.9	150
L-07	Hot Metal Dumping Yard	111.2	150
L-08	Metal Loading Area	87.9	150
Cast House			
L-09	Infront Of FCE-1 & T.H-2	58	150
L-10	Middle Person	70.2	100
L-11	Infront of FCE-2	68.8	150
L-12	Buffer Man Standing Area	66.9	150
L-13	FCE-2 Slag Dump Area	70.3	150
Road			
L-14	Infron of cast House	114.9	150
L-15	Infront of GCP	108.5	150
L-16	Infront of daybin	94.1	150
FCE Building			
L-17	Near Hoist	107.3	150
L-18	In Between 2 FCE	90.5	100
L-19	Near Staircase	94.4	100
1st Floor FCE			
L-20	Near FCE-2	110	150
L-21	In between 2FCE	87.4	150
L-22	Stair Case	88.9	100
L-23	Near FCE-1	110	150
L-24	FCE Control Room	109.2	150
2nd Floor FCE			
L-25	Stair case	76.8	100
L-26	Transformer Room	64.2	100
L-27	Between 2 FCE	55.3	100
L-28	FCE-2	66.8	150
3rd floor FCE			
L-29	Stair case	68.5	100
L-30	FCE-2 MCC Room	91.9	200
L-31	FCE-1 MCC Room	81.6	200
L-32	Infront of MCC Room	99.9	200
4th floor FCE			
L-33	Casing Manufacture-2	90.4	200
L-34	Casing manufacture-1	84.6	200
5th floor FCE			
L-35	Rotary Conveyor-2	87.2	150
L-36	Rotary Conveyor-1	86.2	150



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Pump House			
L-37	Panel Room	95.4	200
L-38	Pump Room	86.2	200
GCP			
L-39	Dust Loading Area	92.2	200
L-40	GCP Control Room	78.4	150
L-41	Silo Dust Release area	60.9	150
L-42	Bag House-1	77.1	150
L-43	Bag house-2	65.5	150
L-44	Compressor Room	70.7	150
DayBin 1st Floor			
L-45	BC-8 FCE-1 & 2	70.7	150
DayBin 2nd Floor			
L-46	Bin-3	129	150
L-47	Bin-9	98	150
L-48	Bin-6	94.6	150
L-49	Bin-10	99.3	150
DayBin 3rd Floor			
L-50	Entrance	57	100
L-51	Carraige-1	65.3	150
L-52	Carraige-2	55.9	150
L-53	backside	55.5	150
Jigging			
L-54	Fab Yard	64	150
Screening House			
L-55	Ground Floor	65.3	100
L-56	1 st floor	58	100
L-57	2 nd floor	54.3	100
Plant side			
L-58	Dolomite stack	74.8	150
L-59	Store	67.1	200
L-60	Lab	111.4	300
L-61	Admin Room	87.8	150




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