

To  
The Deputy Director General of Forests (C)  
Ministry of Environment and Forests, Climate Change  
Integrated Regional Office  
A/3, Chandrasekhar,  
Bhubaneswar-751023,  
Odisha.

**Sub:** Submission of Six-Monthly EC Compliance Report on the EC No. J-11011/594/2008-IA-II(I) dt.04.05.2009, amendment vide letter dated 21st November 2012 and amendment vide letter dated 13.01.2017, for the period Oct'2023 to March'2024, of Charge Chrome Plant, M/s Ferro Alloys Corporation Limited (M/s FACOR LTD), Randia, Bhadrak, Odisha.

Ref: (i) EC No. J-11011/594/2008-IA-II(I) dt.04.05.2009, amendment vide letter dated 21st November 2012 and amendment vide letter dated 13.01.2017

(i) Our letter No.- FACOR/HSE/GP/002/2023-24 dated 16.11.2023- for the issuance of Certified Compliance Report (CCR) of EC identification number EC22A008OR193113, dated 31.10.2022

Dear Sir,

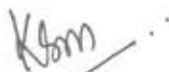
With reference to the above-mentioned subject and refereed letter number, we would like to submit the Six-Monthly EC Compliance report of Charge Chrome Plant of M/s Ferro Alloys Corporation Limited for your kind perusal.

This is for your kind consideration & necessary issuance of Certified Compliance copy in respect of Charge Chrome Plant of M/s FACOR LTD.

Thanking You

Yours Faithfully,

For, M/s Ferro Alloys Corporation Ltd.



**Krutisunder Mohapatra**

**Chief HSE Officer**

Ref: Enclosed as above

**M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)**

**Registered Office:**

D.P.Nagar, PO : Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)

Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.

## EC Compliance

(vide letter No. J-11011/594/2008-IA-II(I) dt.04.05.2009,

Amendment vide letter dated 21st November 2012 and amendment vide letter dated 13.01.2017)

### Charge Chrome Plant, M/S FACOR LTD

SN	Specific Conditions	Compliance
i	Continuous monitoring facilities for all the stacks and sufficient air pollution control equipment viz. fume extraction system, cyclones, and bag filters to the gas cleaning plant (GCP), ID fan and stack of adequate height to submerged arc furnace shall be provided to control particulate matter emissions below 100 mg/Nm <sup>3</sup> . Bag filters shall be provided to control the dust generated from the briquetting plant. The Orissa Pollution Control Board 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.	<p><b>Complied.</b></p> <p>Air pollution control equipment with cyclone &amp; bag filters are installed in the Gas Cleaning Plant. Fume extraction system has been provided to the submerged arc furnace. The particulate matter emission is below 100 mg/Nm<sup>3</sup>. Dedusting system with bag filters is provided to control dust generated from briquetting plant.</p> <p>One CEMS is installed in 45 MVA GCP stack and one AAQMS station has been set up already. Both systems are connected to OSPCB server on real time basis.</p> <p>For recently constructed 33 MVA furnace GCP stack, CEMS &amp; AAQMS system are installed and are in commissioning stage for data connectivity to OSPCB.</p> <p><b>Annexure 1</b> is enclosed herewith for reference photos-</p> <p>1. CEMS, 2. Dedusting System</p>
ii	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the OPCB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, OPCB and CPCB once in six months.	<p><b>Complied.</b></p> <p>Ambient air quality is being monitored in four locations inside the plant. Data on ambient air quality and stack emissions are regularly submitted to the Ministry including Regional Office at Bhubaneswar through six monthly compliance reports. Monitoring stations are located decided based on verbal instruction of Pollution Control Board.</p>

iii	<p>In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dry fog dust suppression system will be provided at crushing and screening section of metal recovery plant to control fugitive emissions generated during crushing, screening etc. Dust extraction system shall be provided to control the fugitive dust from raw material handling, screening, and conveying section along with product handling section, transfer and feeding points to control fugitive dust emissions to meet the OPCB norms. Internal roads shall be made black topped and asphalted. Water spraying shall also be done to prevent the dust emanation due to vehicular movement.</p>	<p><b>Complied.</b>  Adequate water sprinkling system (18 nos.) has been provided along with the conveyor belt line to control fugitive emission during crushing and screening in Metal Recovery plant. Fugitive emission is being checked on a regular basis around the plant (including MRP) by external accredited lab. According to the reports fugitive emission level is under permissible limit which is complying the purpose of the condition for dust suppression.  Dedusting systems have been installed to control fugitive emission.  Internal roads are concreted. Regular water sprinkling is being conducted to prevent dust emanation due to vehicular movement.</p> <p><b>Annexure 2</b> is enclosed herewith for reference-</p> <ol style="list-style-type: none"> <li>1. Fugitive emission report in MRP</li> <li>2. Water sprinkling system.</li> </ol>
iv	<p>Data on ambient air quality, stack emissions and fugitive emissions shall be uploaded on the Company's website and regularly submitted on-line to the Ministry's Regional Office at Bhubaneswar, Orissa Pollution Control Board (OPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO<sub>2</sub> and NO<sub>x</sub> shall also be displayed prominently outside the premises at the appropriate place for the information of public.</p>	<p><b>Complied</b>  Monitoring data on ambient air quality, stack emission is being uploaded on company's website along with six monthly compliance report. Same is being submitted to MOEF IRO office along with six monthly compliance report.</p> <p><b>Annexure 3</b> is enclosed herewith for reference-  Screenshot of Company website.</p>
v	<p>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.</p>	<p><b>Complied.</b>  New raw material storage shed constructed, and the raw material being stored in the covered shed (both new &amp; old storage shed). Raw materials are being transported through covered conveyors.  Monitoring of fugitive emission being done in periodic basis.</p> <p><b>Annexure 4</b> is enclosed herewith for reference.  Photos of Raw Material Storage Sheds (new &amp; old).  <b>Annexure 2</b> is enclosed herewith for reference.  Fugitive emission monitoring report.</p>

vi	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.	<b>Complied.</b> Transportation roads are paved, and Water sprinkling is being done in regular basis through sprinkling stands and truck mounted water sprinkler to control dust emissions. Fugitive emission being monitored in regular basis.  Photo- Water Sprinkling System is attached as <b>Annexure 5</b> for reference.
vii	Total water requirement should not exceed 168 m3/day ground water as per the 'permission' accorded by the Central Ground Water Authority vide letter no. 21-4(74)/SER/CGWA/2008- 1281 dated 24th October 2008. Closed circuit cooling system shall be adopted to reduce water consumption. Effluent from Soft water plant shall be neutralized and collected in equalization-cum-settling pond and clear water recycled/reused for dust suppression, metal cooling, slag granulation, green belt development and other plant related activities within the plant premises. Cooling under blow down shall be treated and completely recycled. Wastewater from Jigging Plant shall be treated in a settling tank and reused in Jigging plant. No wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Domestic wastewater shall be treated in septic tanks followed by soak pit system and used for green belt development.	<b>Complied</b> Ground water NOC ( <b>CGWA/NOC/IND/REN/1/2023/8654</b> ) is renewed from CGWA and is active till <b>18.09.2025</b> . The permitted quantity is revised to <b>1750 KLD</b> as per the granted NOC. Effluent from backwash of filtration unit in water treatment plant is collected in neutralization basin. After neutralization and settling process, it is used in dust suppression and other purposes inside plant premises. Wastewater from cooling tower blowdown is completely treated and reused. No wastewater is being discharged outside factory premises and ZLD policy is adopted.  Renewed CGWA NOC is enclosed herewith as <b>Annexure 6</b> for reference.
viii	'Zero' effluent discharge shall be strictly followed, and no wastewater shall be discharged outside the premises	<b>Complied</b> All type of wastewater is being treated and reused in multipurpose. No wastewater is being discharged outside factory premises.



ix	<p>Metal Recovery Plant shall be installed to recover metal in metal recovery plant (Jigging plant) through hydraulic juzzing process. Discharge from metal recovery plant shall be monitored for the Chromium content and maintained within the permissible limit before recycling and reuse. Slag tailings shall be dumped in own premises in secured land fill as per CPCB guidelines after recovery of the metal. Used oils/lubricants shall be sold to authorized recyclers/preprocessors.</p>	<p><b>Complied.</b>  Metal recovery plant (MRP) is installed and is in operation. Water used in the MRP is being reused through the settling tank.  Discharge from MRP is being monitored for Chromium content and is within the permissible limit.  100% of generated slag is being utilized.  Hence, no land fill is required.  Company is granted with Hazardous Waste Authorization holding auth. number <b>IND-IV-HW-288/10328</b> dated <b>13.06.2022</b> valid till <b>31.03.2026</b>.  Used oil being disposed off within 180 days to authorized vendor.</p> <p><b>Annexure 7</b> is attached herewith for reference</p> <ol style="list-style-type: none"> <li>1. HWA of FACOR</li> <li>2. Wastewater analysis report (MRP).</li> <li>3. Disposal record of hazardous waste. <b>(Form-10)</b></li> <li>4. Authorization of the recycler.</li> </ol> <p>Slag Generation &amp; Utilization report is enclosed as <b>Annexure 8</b></p>
x	<p>Chromate slag shall be used for road making only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, Ferro chrome shall be recovered from the slag and output waste shall be disposed in secured landfill as per CPCB guidelines. All the other solid waste shall be properly disposed off in environment-friendly manner. No hazardous materials shall be spilled out and good housekeeping practices shall be adopted. Hazardous waste shall be handled as per the Hazardous Waste (Management &amp; Handling) Rules, 1989 and subsequent amendments.</p>	<p><b>Complied</b>  Slag is being analyzed for toxicity through NABL accredited lab and the total chromium content is under the permissible limit.  After recovery of the metal slag tailings are being stored in the slag storage yard. Slag is used construction, road making and low-lying areas development inside and outside the premises as per authorization from OSPCB. Therefore, there is no need of a secured landfill for the slag to be stored.  Good housekeeping is being maintained at the plant.</p> <p><b>Annexure 8</b> is enclosed herewith for reference.</p> <ol style="list-style-type: none"> <li>1. Slag Generation &amp; utilization report.</li> <li>2. Lab analysis report of slag.</li> </ol> <p><b>Annexure 8A</b> is enclosed herewith for reference.  OSPCB Authorization letter for use of Slag.</p>

xi	Product fines and flue dust should not be dumped anywhere but reused in the process. Flue dust and briquette plant dryer dust along with chrome ore fines shall be reused for making briquettes after ensuring non-hazardous in nature. Sewage sludge from Septic tank shall be used as manure	<b>Complied.</b> Chrome fines from dryer is reused in making briquettes. The flue dust generated from GCP is collected in silo through chain conveyor and made into pellets. Pellets are charged into the furnace.
xii	Proper handling, storage, utilization, and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, OPCB and CPCB	<b>Complied.</b> Chromate Slag is being analyzed for toxicity through NABL accredited lab and the total chromium content is under the permissible limit. 100% of generated slag is being utilized. Company is granted with Hazardous Waste Authorization holding auth. number IND-IV-HW-288/10328 dated 13.06.2022 valid till 31.03.2026. Used oil being disposed off within 180 days to authorized vendor.  <b>Annexure 7</b> is attached herewith for reference 1. HWA of FACOR 2. Wastewater analysis report (MRP). 3. Disposal record of hazardous waste. <b>(Form-10)</b> 4. Authorization of the recycler.  <b>Annexure 8</b> is attached herewith for reference 5. Lab analysis report of slag 6. Slag Generation & Utilization report
xiii	As proposed, green belt shall be developed in at least 84 acres (33 %) out of total 205.50 acres within and around the plant premises as per the CPCB guidelines in consultation with DFO.	<b>Complied.</b> Existing plant area is 205.5 acre and out of which ~34.84 % of the plant area is demarcated as greenbelt (i.e. 71.59 acres). Total 43,605 numbers of trees were planted in the allocated land. Further to increase the density, company is planning to plant more trees in the green belt patch inside the plant premises.  <b>Annexure 9</b> is enclosed herewith for reference Photographs- Green Belt & plantation record
xiv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro chrome units shall be strictly implemented.	<b>Complied.</b> All the applicable points/recommendation are implemented.  <b>Annexure 10</b> is enclosed herewith for reference CREP implementation status along with the supporting document is attached herewith.

xv	All the issues raised during the Public Hearing / Public Consultation meeting and commitments made shall be satisfactorily implemented.	<b>Not Applicable.</b>  There was no public hearing conducted earlier. So, it is Not Applicable.
<b>SN</b>	<b>Specific Conditions</b>	<b>Compliance</b>
i	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government	<b>Complied</b> All stipulated conditions are being complied.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	<b>Complied.</b> There is no expansion or modification has been done without prior approval of the Ministry of Environment & Forest.
iii	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	<b>Complied.</b> All type of wastewater is being treated and reused in multipurpose like dust suppression, plantation etc. All types of wastewaters are being treated to meet the prescribed standard. No wastewater is being discharged outside factory premises.  <b>Annexure 11</b> is enclosed herewith for reference Wastewater quality reports
iv	The company shall develop rainwater harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	<b>Complied.</b> 3 nos. of Rainwater harvesting ponds have been constructed and water from RWHP is being used for dust suppression and other plant activity.  <b>Annexure-12</b> is attached herewith for reference Photo- Rainwater harvesting pond.
v	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime)	<b>Complied.</b> Noise level is monitored on monthly basis in around the plant premises. Reports are analyzed regularly. Noise control measures are also taken care of by providing acoustic enclosures in high noise equipment i.e. DG set.  <b>Annexure 13</b> is attached herewith for reference 1.Noise Monitoring Report 2. Photograph of acoustic enclosure in DG set.

vi	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	<b>Complied</b> IME & PME for all workers have been conducted as per schedule. Last 3-year IME & PME record along with supporting document is provided.  <b>Annexure 14</b> is attached herewith for reference Last 3-year IME & PME record along with supporting document is provided.
vii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care etc.	<b>Complied.</b> All measures have been implemented. A dedicated CSR team has been deployed to carry out the socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care.  <b>Annexure 15</b> is attached herewith for reference EMP action plan (EC of the higher capacity) along with the supporting documents are attached herewith.
viii	As proposed, Rs. 10.00 Crores and Rs. 4.00 Crores shall be earmarked towards capital cost and recurring cost/annum for the environment pollution control measures shall be judiciously utilized 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.	<b>Complied</b> Total of 20.56 crores have been expenditure during the period Jan'23 to Mar'2024, for the environmental protection measures like; installation of SRTP, STP, GCP, rainwater harvesting & DES etc.  <b>Annexure 16</b> is attached herewith for reference Detailed break up of investment and photographs are provided in recent PH compliance report.
ix	The Regional Office of this Ministry at Bhubaneswar / CPCB / OPCB shall monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	<b>Complied</b> Six Monthly EC compliance reports are being submitted to the Regional office, MoEF, Bhubaneswar.  <b>Annexure 17</b> is attached herewith for reference Submission status of 6 monthly compliance report is provided.



x	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 OPCB and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhubaneswar.	<b>Complied.</b> Environment clearance had been published in daily Odia newspaper Samaj and SAMBAD dated 01.10.2009 for information of public.  Newspaper notification copies are provided as <b>Annexure 18</b> for reference.
xi	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.	<b>Complied.</b> Financial closure report was submitted to your good office vide letter number FACOR/Bhadrak/Legal/076/2023 dated 25.08.2023.  Financial closure report is enclosed herewith as <b>Annexure19</b> .
SN	EC No. J-11011/594/2008-IA-II (I) dated 21st Nov. 2012 (Conditions)	<b>Compliance</b>
i	Regular monitoring of influent and effluent surface, sub-surface, and ground water (including chromite) should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (P) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.	<b>Complied.</b> Monitoring is being done for the ground water as well as for the wastewater from NABL accredited lab. Total chromium content is under the permissible limits. Reports are being shared to MOEF IRO office with the half yearly compliance report.  <b>Annexure 20</b> is attached herewith for reference 1. Ground water analysis report.  <b>Annexure 11</b> is enclosed herewith for reference 2. Wastewater analysis report.
ii	The company shall adopt well laid down corporate environment policy and identified and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with environmental clearance, environmental laws, and regulations.	<b>Complied</b> Environment Policy & Environment Management Cell is available.  <b>Annexure 21</b> is enclosed for reference.  Env Policy & Env Management Cell

iii	<p>CSR schemes shall be identified based on public hearing issues and need based assessment in and around the villages within 10 KM of the site and in constant consultation with the village Panchayats and the District Administration. As part of CSR, prior identification of local employable youth and eventual employment in the project after imparting relevant training and retaining, if necessary, shall also be undertaken.</p>	<p><b>Complied</b></p> <p>As per Para 4.0 of the Environment Clearance dated 04.05.2009 indicated that no public hearing is required as per section 7(ii) of EIA notification.</p> <p>Whereas CSR work is being conducted as per need based of the Public, assessed during Socio-economic survey from time to time.</p> <p>CSR report FY 2023-24, is enclosed for reference as <b>Annexure 22</b>.</p>
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**Annexure-1**  
***Charge Chrome Plant***  
***of M/s Ferro Alloys Corporation Ltd***  
**Online Continuous Emission Monitoring Systems (OCEMS)**

**Location: Gas Cleaning Plant (GCP)**



**Dedusting System with Bag filters for Dust Extraction**

**Location: Dryer**







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• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## ANNEXURE-2

### TEST REPORT

Test Report No: ENVLAB/23-24/TR-15167

Date: 05.03.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	22.02.2024
			Sample Received on	:	23.02.2024
Sample Description	:	Fugitive Emission	Sampling Procedure	:	IS 5182
			Sampling Location	:	1-Near Agglomeration area 2- Near MRP area
Environment Condition during Sampling	:	Atmospheric Temp.: 29 – 33°C Barometric Pressure : 755 mm of Hg	Instrument used for Sampling	:	RDS (APM 460 BL), FPS (APM 550), VOC Sampler
Sample Condition	:	Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling done by	:	Ashutosh Mohanty
Test Started on	:	23.02.2024	Test Completed on	:	28.02.2024

SL. No	Location	Test Result	
		Suspended Particulate Matter( $\mu\text{g}/\text{m}^3$ )	Respirable Particulate Matter ( $\mu\text{g}/\text{m}^3$ )
1	Near Agglomeration area	248	105
2	Near MRP Area	216	93
Standard For Crusher /Industrial Area		1200	-----

#### TERMS AND CONDITION:-

1. The Test result is relevant only to the item tested.
2. This report shall not be reproduced in full or part without written approval of Visiontek consultancy services. (P) Ltd
3. The laboratory is not responsible for the authenticity of photocopied test report.
4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations.
5. The laboratory's responsibility under this report is limited to; proven willful negligence.

\*\*\* End Report\*\*\*



Reviewed by



Approved by





## **Annexure 2**

### **Water Sprinkling system in MRP**




## Annexure 3 Six Monthly Compliance Report in Company Portal


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**FPL Env. Monitoring Report Oct 23**  
PDF, 941.72 KB







**Environment Statement FY 22-23, Ostapal Chromite Mines**  
PDF, 3.99 MB







**Six Monthly EC Compliance Reports of Kalarangiatta Chromite Mine (Apr'23 to Sept'23)**  
PDF, 1.32 MB







**Six Monthly EC Compliance Reports of Ostapal Chromite Mine (Apr'23 to Sept'23)**  
PDF, 14.32 MB







**Six Monthly EC Compliance Apr' 23 to Sep' 23, CCP**  
PDF, 9.73 MB






**Six Monthly EC Compliance Apr' 23 to Sep' 23, FPL**  
PDF, 5.71 MB





**Ash Utilization For the Month November' 2023**  
PDF, 1.44 MB



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**M/s. Ferro Alloys Corporation Ltd.** (A subsidiary of Vedanta Ltd.)

**Registered Office:**

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)

Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.

## Annexure 4

### Raw Material Yard (Old)



### Raw Material Yard (New)





## Annexure 5



### Water Sprinkling System





(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)  
**NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION**

Project Name:	M/s Ferro Alloys Corporation Ltd.		
Project Address:	M/s Ferro Alloys Corporation Ltd.		
Village:	Randia (og)	Block:	Bhadrak
District:	Bhadrak	State:	Odisha
Pin Code:			
Communication Address:	M/s Ferro Alloys Corporation Ltd, Charge Chrome Plant, D.p Nagar, Randia, Bhadrak, Bhadrak, Odisha - 756135		
Address of CGWB Regional Office :	Central Ground Water Board South Eastern Region, Bhujal Bhawan, Khandagiri Square, Nh-5, Bhubaneshwar, Khordha, Odisha - 751030		

1.	NOC No.:	CGWA/NOC/IND/REN/1/2023/8654				2.	Date of Issuance		04/12/2023				
3.	Application No.:	21-4/74/OR/IND/2008				4.	Category: (GWRE 2022)		Safe				
5.	Project Status:	Existing With Additional Ground Water Requirment				6.	NOC Type:		Renewal				
7.	Valid from:	19/09/2022				8.	Valid up to:		18/09/2025				
9.	Ground Water Abstraction Permitted:												
Fresh Water			Saline Water			Dewatering			Total				
m³/day		m³/year		m³/day		m³/year		m³/day		m³/year			
1750.00		638750.00											
10.	Details of ground water abstraction /Dewatering structures												
Total Existing No.:6							Total Proposed No.:0						
		DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*		0	0	6	0	0	0	0	0	0	0	0	0
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps													
11.	Ground Water Abstraction/Restoration Charges paid (Rs.):							3580918.00					
12.	Environment Compensation (if applicable) paid (Rs.):							0.00					
13.	Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.				No. of Piezometers			Monitoring Mechanism					
Manual								DWLR**	DWLR With Telemetry				
**DWLR - Digital Water Level Recorder					2			0	1	1			

(Compliance Conditions given overleaf)

This is an auto generated document & need not to be signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये - जीवन बचाये  
SAVE WATER - SAVE LIFE

CENTRAL GROUND WATER AUTHORITY

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18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: [cgwa-noc.gov.in](http://cgwa-noc.gov.in)

**पानी बचाये – जीवन बचाये**  
**SAVE WATER - SAVE LIFE**

**Validity of this NOC shall be subject to compliance of the following conditions:**

**Mandatory conditions:**

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website ([www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m<sup>3</sup>/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

**General conditions:**

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m<sup>3</sup>/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).
- 31) In the self-compliance report, the PP shall submit details of Drilling Agency/ Agencies, which has/ have constructed BW(s)/ TW(s) along with undertaking to the effect that all necessary measures have been taken as per directions of Hon'ble Supreme Court provided in Annexure-VII of guidelines dated 24.09.2020 in respect of abandoned/ failed BW(s)/ TW(s)/Piezometer(s), if any. The PP is advised to engage registered drilling agency/ agencies. In the event of any mishap/ unfortunate incident due to negligence in taking measures for prevention of accident due to falling in Bore Well, both PP and concerned drilling agency shall jointly be held responsible and penal action as per extant Government rules shall be taken.

**(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)**

## CENTRAL GROUND WATER AUTHORITY

Department of Water Resources, River Development and Ganga Rejuvenation  
Ministry of Jal Shakti, Govt. of India

**18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011**

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**SAVE WATER - SAVE LIFE**



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 E-mail: hwmd@ospcboard.org /  
 paribesh1@ospcboard.org  
 Website: www.ospcboard.org

## STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII

Bhubaneswar – 751 012, India

**BY SPEED POST**

**FORM 2**

[See rule 6(2)]

### RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE OCCUPIER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

1. Number of authorization: IND-IV-HW-288/ 10328 and date of issue: 13-06-2022
2. Reference of application (No. and date): 3230946, dtd. 27-11-2021 / 03-06-2022.
3. **M/s Ferro Alloys Corporation Limited (Charge Chrome Plant)** is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, utilization, disposal or any other use of hazardous or other wastes or both in the premises situated At -D. P. Nagar, Po - Randia, Dist- Bhadrak, Odisha- 756135.

#### Details of Authorization

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
1.	Schedules - I Stream - 5.1	Used / Spent Oil	10 T/A	Storage in containers over impervious floor under well ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha
2.	Schedules - I Stream -5.2/3.3/33.2	Waste / Residues Containing Oil	3 T/A	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal in the Authorized HW incinerator / Co-processing in Cement Kiln authorized by SPCB, Odisha / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF)



Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
3.	Schedules - I Stream - 35.1	Exhaust Air or Gas Cleaning Residue	2500 T/A	Storage in containers over impervious floor with suitable parapet walls under well ventilated covered shed followed by recycle in the process / disposal through Actual Users having valid authorization from SPCB, Odisha / CHWTSDF
4.	Schedules - I Stream - 3.3	Waste oil filters	5 T/A	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal in the Authorized HW incinerator / Co-processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF
5.	Schedules - I Stream - 33.1	Empty Barrels	4 T/A	Storage on impervious floor under well ventilated covered shed followed by captive reuse / disposal through original supplier / Actual Users authorized by SPCB, Odisha

- (1) The authorization shall be valid up to **31-03-2026**.
- (2) The authorization is subject to the following general and specific conditions.

**A. General Conditions of authorisation:**

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty". Any accident in this respect shall be intimated to the Board immediately.

7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
9. An application for the renewal of an authorisation shall be made as laid down under these Rules.
10. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
11. Annual return shall be filed by 30<sup>th</sup> day of June of every year for the preceding period from April to March.

**B. Specific Conditions:**

1. Authorization granted herewith does not relieve you in complying with other provision laid down under Water (PCP) Act, 1974, Air (PCP) Act, 1981 and Environment (Protection) Act, 1986, and the Rules made there under.
2. This authorization is subject to statutory and other clearances from Govt. of Odisha and / or Govt. of India as and when applicable.
3. In case the quantity of generation of hazardous Waste exceeds the Authorized quantity, the industry / mine shall apply for amendment of Authorization order.
4. The industry / mine shall strictly comply to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and amendments made thereafter.
5. Annual returns in Form - 4 (See Rules- 6 (5), 13 (8), 16 (6) & 20 (2)) shall be submitted to the Board for the financial year by 30th June of every year. It shall contain the detail quantities of generation, storage and disposal of different type of hazardous wastes such as recyclable, incinerable, land disposable.
6. Steps shall be taken for reduction and prevention of the hazardous waste generated or for recycling or reuse.
7. Environmental Information with respect to Air, Water, Hazardous Waste and Hazardous Chemicals shall be displayed at the main gate for public view.
8. The transport of the hazardous and other waste shall be in accordance with the provisions of the Rule, 2016 and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.



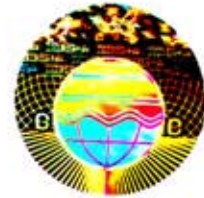
9. The occupier shall provide the transporter with the relevant information in **Form 9**, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per **Form 8**.
10. In case of transportation of hazardous waste and other wastes for recycling or utilization including co-processing to outside the state, the sender shall intimate both the State Pollution Control Boards before handing over the waste to the transporter.
11. Manifest system (Movement document) shall be strictly followed as per Rule-19 and to be submitted to this office as per the Rule. The industry / mine shall check the authenticity of the way bill of the transport vehicle to ensure supply of hazardous waste to the authorized destination.
12. The hazardous waste shall be sold if required only to Actual User having valid authorization from the State Pollution Control Board, Odisha and concerned SPC Board. Details of such wastes shall be entered in the passbook issued by respective SPCB.
13. All the hazardous waste shall be stored in impervious pits / containers / floors under cover shed with adequate capacity having spill containment facility. The spilled hazardous waste shall be re-collected and stored in impervious pits / containers / floors under cover shed prior to sale / disposal.
14. The schedule of hazardous waste and the quantity as specified shall only be disposed off as per the stipulation prescribed in this authorisation.
15. This authorization does not permit you to either receive and process or generate hazardous waste in case validity of Consent to Operate of your industry / mine ceases. However you can carry out handling, storage, treatment, transport and disposal of hazardous waste and other wastes generated previously during such period to avoid accumulation of hazardous waste.
16. The industry / mine shall store the accumulated hazardous waste for a period not exceeding 90 days and shall dispose as per the stipulation prescribed in this authorisation order. In case, generation of any category of Hazardous Waste is less than 10 T/A, then such waste can be stored up to a period of 180 days before disposal. In case of any violation, authorization granted shall be suspended / cancelled.
17. The industry / mine shall apply for renewal of authorization in Form - 1, 120 days before expiry of this authorization order enclosing Annual Return in Form - 4, Manifest copies in Form - 10 and compliance to the conditions stipulated in this order along with adequate processing fees.

18. In case of transportation of hazardous and other waste, the responsibility of safe transport shall be either of the sender or the receiver whosoever arranges the transport and has the necessary authorisation for transport from the concerned State Pollution Control Board. This responsibility should be clearly indicated in the manifest.
19. Hazardous Wastes having calorific value of more than 2500 Kcal/Kg shall not be landfilled. It can only be disposed through authorized actual users or incinerated in authorized Hazardous Waste incinerator or co-processing in authorized cement kiln.

  
Member Secretary

To

The CEO  
M/s Ferro Alloys Corporation Limited,  
(Charge Chrome Plant)  
At - D. P. Nagar, Po - Randia,  
Dist- Bhadrak, Odisha - 756135



Memo No. 10329  
Copy to the :

Dt. 13-06-2022

1. Collector & District Magistrate, **Bhadrak**.
2. Director, Factories & Boilers, Odisha, **Bhubaneswar**.
3. Regional Officer, State Pollution Control Board, Odisha, **Balasore**.
4. Guard file.

  
Senior Environmental Engineer



## MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's Name & Mailing Address (Including Phone No & email)	: 10330w Alloys Corporation Ltd, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000
2.	Senders authorization No.	: IND-IV-HW-288/10322 dt 12-6-22
3.	Manifest Document No.	: 001/23-24 dt 15-11-2023
4.	Transporter's Name & Address (including Phone No. and email)	: self
5.	Type of Vehicle	: (Truck/Tanker / Special Vehicle)
6.	Transporter's Registration No.	: NIL
7.	Vehicle Registration No.	: OR-01-V-4646
8.	Receiver's Name & mailing Address (including Phone No. and email)	: M. S. Swaraj Lubricants, At Ghatigaon, PO. Haldighati, Dist. Balasore, Odisha. mswarajlubricants@gmail.com
9.	Receiver's authorisation No.	: IND-IV-HW-1023/12667 dt 09-23
10.	Waste Description	: Used oil
11.	Total Quantity	: 1.41 MT m3 or MT or KL
	No. of Containers	: 8 Nos.
12.	Physical Form	: Solid/Semi-Solid/Sludge/Oily Tarry/Slurry/Liquid
13.	Special Handling Instructions and additional Information	: a) Keep the material dry b) Never transport while hot and wet c) Avoid skin and eye contact d) Store in a dry and covered area e) Use safety shoes, helmet and goggles
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 respect in proper condition for transport by road according to applicable national government regulations.
	Types Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	
15.	Transporter Acknowledgment of Receipt of Wastes	
	Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	
16.	Receivers Certification for Receipt of Hazardous and other waste	
	Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	



# MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's Name & Mailing Address (Including Phone No & email)	Ferrochrome Corporation Limited (Charge Chrome Plant) D.P. Nagar. PO. Rendra, Dist. Bhubaneswar, Odisha-756135
2.	Senders authorization No.	IND-IV-11W-288/10328 dt. 13.6.22
3.	Manifest Document No.	001/23-24 dt. 15.11.2023
4.	Transporter's Name & Address (including Phone No. and email)	Self
5.	Type of Vehicle	(Truck/Tanker / Special Vehicle)
6.	Transporter's Registration No.	NIL
7.	Vehicle Registration No.	OR-01-V-4646
8.	Receiver's Name & mailing Address (including Phone No. and email)	M/s. Swaraj Lubricants. At-Gobinda. PO. Haldipada. Dist. Balasore. Odisha. swarajlubricants@gmail.com
9.	Receiver's authorisation No.	IND-IV-11W-1028/12667 dt. 09.8.23
10.	Waste Description	Used oil
11.	Total Quantity No. of Containers	01.64 MT 8 Nos.
12.	Physical Form	Solid/Semi-Solid/Sludge/Oily Tarry/Slurry/Liquid
13.	Special Handling Instructions and additional Information	a) Keep the material dry b) Never transport while hot and wet c) Avoid skin and eye contact d) Store in a dry and covered area e) Use safety shoes, helmet and goggles
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 respect in proper condition for transport by road according to applicable national government regulations.
	Types Name & Stamp Signature	Month Day Year 1 1 1 5 2 0 2 3
15.	Transporter Acknowledgment of Receipt of Wastes	
	Name & Stamp Signature	Month Day Year 1 1 1 5 2 0 2 3
16.	Receivers Certification for Receipt of Hazardous and other waste	
	Name & Stamp Signature	Month Day Year 1 1 1 5 2 0 2 3



**FORM 9**  
[See rule 18 (2)]

**TRANSPORT EMERGENCY (TREM) CARD**

[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]

1. Characteristics of hazardous and other wastes:

S.No	Type of Waste	Physical properties	Chemical Constituents	Exposure Hazards	First Requirements	Aid
1.	Used Oil	1. Colour – Black 2. Order – Lube Oil 3. Vicious in nature	Branched Alkanes Cycloalkanes, Benzenes, Polly Aromatic Hydro Carbon, Decompositi on Products	Skin corrosion/ Irritation, Sensitization – Respiratory, Carcinogenicity	IF INHALED: Move the person to fresh air and keep comfortable for breathing IF ON SKIN: Wash immediately with plenty of soap and water. IF SWALLOWED: Immediately call for emergency number or doctor/ physician	

2. Procedure to be followed in case of fire: Move to away from the location to safe point and immediately contact the nearest fire station
3. Procedure to be followed incase of spillage/accident/explosion: Move to safe distance from the location and immediately contact the nearest fire station
4. For expert services, please contact:
5. Name and Address: M/S. FERRO ALLOYS CORPORATION,

CHARGE CHROME PLANT,  
DP NAGAR RANDIA,  
BHADRAK – 756135.

(i) Telephone No: 7735738480



(Name, Contact Number and Signature of sender)

Date: 15/11/2023

Place: Randia

Biswanath Panigrahi  
Head Env. - FACTOR  
Mob: 7735738480



# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## ANNEXURE-7

### TEST REPORT

Test Report No: ENVLAB/24-25/TR-00584

Date: 05.04.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	28.03.2024
			Sample Received on	:	29.03.2024
Sample Description	:	Waste Water	Sampling Procedure	:	APHA 1060 B
Sample Condition	:	Ice Preservation	Sampling Location	:	WW-1: MRP POND
			Sampling done by	:	Ashutosh Mohanty
Test Started on	:	29.03.2024	Test Completed on	:	05.04.2024

Chemical Testing

WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results
					WW1
1.	pH at 25°C	mg/l	APHA 4500 H <sup>+</sup> B	6.5-9.0	7.63
2.	Suspended Solids	mg/l	APHA 2540 D	<100	60
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS 3025 (P-44) 1993 RA 2003	<30	8.0
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	28.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> C	5	1.54
6.	Total Nitrogen	mg/l	APHA 4500-N	10	4.1
7.	Oil & Grease	mg/l	APHA 5520 B	--	2.0
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	47
9.	Total Chromium as Cr	mg/l	APHA 3111 B	--	<0.01

#### TERMS AND CONDITION:-

- The Test result is relevant only to the item tested.
- This report shall not be reproduced in full or part without written approval of Visiontek consultancy services.(P) Ltd
- The laboratory is not responsible for the authenticity of photocopied test report.
- The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations
- The laboratory's responsibility under this report is limited to; proven willful negligence.

\*\*\* End Report\*\*\*







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• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-01988

Date: 06.05.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	29.04.2024
			Sample Received on	:	30.04.2024
Sample Description	:	Waste Water	Sampling Procedure	:	APHA 1060 B
Sample Condition	:	Ice Preservation	Sampling Location	:	WW-I: MRP POND
			Sampling done by	:	Ashutosh Mohanty
Test Started on	:	30.04.2024	Test Completed on	:	05.05.2024

Chemical Testing

WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results
1.	pH at 25°C	mg/l	APHA4500 H <sup>+</sup> B	6.5-9.0	7.59
2.	Suspended Solids	mg/l	APHA 2540 D	<100	54
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS3025(P-44)1993 RA 2003	<30	7.3
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	24.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> C	5	1.58
6.	Total Nitrogen	mg/l	APHA 4500-N	10	4.2
7.	Oil & Grease	mg/l	APHA 5520 B	--	2.3
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	45
9.	Total Chromium as Cr	mg/l	APHA 3111 B	--	<0.01

### TERMS AND CONDITION:-

1. The Test result is relevant only to the item tested.
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3. The laboratory is not responsible for the authenticity of photocopied test report.
4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations
5. The laboratory's responsibility under this report is limited to; proven willful negligence.



\*\*\* End Report\*\*\*



## Annexure 7

### Hazardous Waste Authorization of the Recycler

Tel : 2440312/244034  
 EPABX : 244000/244047  
 E-mail: [board@spcb.ori.org](mailto:board@spcb.ori.org) /  
[grd@spcb.ori.org](mailto:grd@spcb.ori.org)  
 Website: [www.spcb.ori.org](http://www.spcb.ori.org)

## STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]  
 Paribesh Bhawan, A/11B, Nilakantha Nagar, Unit - VIII  
 Bhubaneswar - 751012, INDIA

**BY SPEED POST**

**FORM 2**  
[See rule 6(2)]

**RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE ACTUAL USER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016**

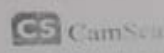
1. Number of authorization: IND-IV-IHW-1028/12667 and date of issue: 09-08-2023
2. Reference of application (No. and date) : 4562076, dtd. 10-12-2022/ 01-08-2023.
3. M/s Swaraj Lubricants is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, recycling, recovery, preprocessing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated At - Govinda, Haldipada, Balasore, Odisha - 756027.

**Details of Authorization**

Sl. No.	Category of Hazardous Waste as per the Schedules I, II, III and IV of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
<b>Hazardous Waste for Recycling/ Re-processing</b>				
1.	Schedules - I (Stream - 5.1)/ Schedules - IV (Sl. No - 20)	Used Oil/ Spent Oil	1,500 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
2.	Schedules - I (Stream - 5.2, 3.1, 3.3, 3.4 & 4.3)/ Schedules - IV (Sl. No-20)	Waste Oil	6,000 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
<b>Hazardous Waste Generation for disposal</b>				
1	Schedules - I (Stream - 4.1, 4.4 & 4.5)	Spent Clay Containing Oil / Oily Sludge or Emulsion / Organic Residues From Process / Sediments & Solid From Waste Oil	20 T/A	Storage in impervious pits / containers under well ventilated covered shed followed by Co-processing in Cement Kiln Authorized by SPCB, Odisha / disposal in Authorized Hazardous Waste Incinerator / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF) (In no case these hazardous wastes shall be used for making grease)

- (1) The authorization shall be valid up to 31-03-2024.
- (2) The authorization is subject to the following general and specific conditions:

Page #1/4





# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

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- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## ANNEXURE-5

Ref: Envlab/23-24/TR-14451

Date: 05.02.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	13.01.2024
			Sample Received on	:	15.01.2024
Sample Description	:	Below Slag	Sampling Procedure	:	VCSPL/SOP/003, Dt. 01.08.2019
Sample Condition	:	Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling done by	:	Ashutosh Mohanty
Test Started on	:	15.01.2024	Test Completed on	:	20.01.2024

SL. No.	Name of the Parameters	Unit	Testing Method	Conc. limit as per Schedule-II of Hazardous Waste Rule, 2016	Analysis Result
					S-1
1	pH	--	EPA 1311/ EPA200.8:1992 (TCLP)	--	8.06
2	Hexavalent Chromium as Cr+6	mg/L		5.0	<0.01
3	Arsenic (as As)	mg/L		5.0	<0.004
4	Mercury as Hg	mg/L		0.2	<0.004
5	Lead as Pb	mg/L		5.0	0.25
6	Nickel (as Ni)	mg/L		20.0	16.77
7	Cadmium (as Cd)	mg/L		1.0	0.013
8	Cobalt (as Co)	mg/L		80.0	1.22
9	Copper (as Cu)	mg/L		25.0	0.63
10	Lime Content (CaO)	mg/L		--	18.04

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4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations.
5. The laboratory's responsibility under this report is limited to: proven willful negligence.

\*\*\* End Report\*\*\*





## Annexure 8

**Details of Annual Solid Waste Generated from M/S FACOR from the period 2021-22 to 2023-24.**

Year	Name of the Industries	Solid Waste	Generated Quantity (MT)	Utilized Quantity (MT)	Disposal Practices
2021-22	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	75378	75378	Used for land filling low lying areas & road making inside and outside plant premises
2022-23	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	65811.66	65811.66	Used for land filling low lying areas & road making inside and outside plant premises
2023-24	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	82745.71	82745.71	Used for land filling low lying areas & road making inside and outside plant premises





# STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII

Bhubaneswar – 751 012, INDIA

Tel: 0674-2561907/2564033, EPABX: 0674-2561909/2562847

F-mail: paribesh1@ospcbboard.org. Website: www.ospcbboard.org



No. 11468 /

Ind-I-CON-5461

Date 07.08.2021 /

By Speed Post/e-mail

To

The CEO,  
M/s. Ferro Alloys Corporation Ltd.,  
Charge Chrome Plant,  
Randia, Bhadrak- 756135.

**Sub: Approval of Surface Runoff Treatment System and Use of Ferro Chrome Slag of M/s. Ferro Alloys Corporation Ltd.**

**Ref: 1) Your Letter No. FACOR/HSE/CO/03, dtd.11.06.2021.  
2) Your Office Letter No. Nil, dtd. 20.07.2021.**

Sir,

Vide above referred letters you have sought for approval of the Board for installation of single Surface Runoff Treatment System (SRTS) for both ferro chrome plant & power plant and use of ferro chrome slag for land filling & road making inside & outside the factory premises. After careful consideration, the conditions imposed in the consent to operate order issued vide this office letter No. 6062, dtd. 13.04.2021 are modified as follows.

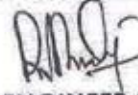
1. The industry shall install a Surface Runoff Treatment System of adequate capacity estimating the quantity of surface run-off generated from both Power Plant and Ferro Chrome Plant considering the peak rainfall data over past 30-40 years. The industry shall furnish an undertaking that the onus of compliance and performance of the SRTS will lie on Ferro Chrome Plant.

The treated runoff shall meet the prescribed standards ( pH : 6.5 - 9.0, TSS : 100 mg/l, BOD : 30 mg/l, COD : 250 mg/l, Oil & Grease : 10 mg/l, Hexavalent Chromium (Cr+6) : 0.1 mg/l, Iron (Fe) : 3.0 mg/l). The treated runoff shall be utilized to the maximum extent and the surplus quantity shall be discharged to outside. The SRTS shall be commissioned by 31.12.2021 as per the condition of Consent to Operate order.

2. The industry shall use the ferro chrome slag generated from the plant for land filling and road making inside and outside plant premises without causing environmental nuisance. It shall keep a detail account of such waste supplied to outside for genuine purpose and ensure that no such waste is dumped on roadside or not used for anything contrary to the permission given herein.

Lapses if any found in handling and utilization of the waste shall lead to withdrawal of permission.


Yours faithfully,

 7/8/21

SR. ENV. ENGINEER (L-I)

Memo No. 11469 / Dt. 07.08.2021

Copy forwarded to Regional Officer, SPC Board, Balasore for information.

 7/8/21

SR. ENV. ENGINEER (L-I)

## Annexure 9

### Greenbelt

The company is currently having 34.84% of green belt coverage as per Greenbelt assessment by expert agency. Company is continuously working to achieve the tree density to 2500/Ha by using the existing vacant land and replacement of damaged plants.

Details of plantation is provided below.

Total land coverage by the project : 86.163 HA.

Green Belt developed area : 28.99 HA.

#### Plantation:

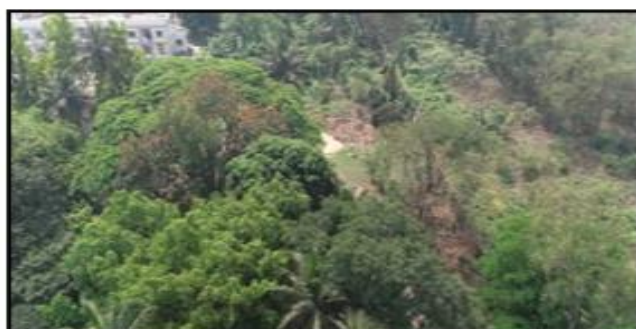
Year of plantation	Species planted	Spacing	Height attained (As on Date)	Total area covered in Ha	Area still available in Ha
2023-24	5806	2.5 m	0.7 m	2.1	2.5
2022-23	7070	2.5 m	2.0 m	2.4	4.6
2021-22	1550	2.5 m	3.2 m	0.5	7.0

Survival of plantation	:	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
-Total plantations (No.)	-	1550	7070	6675
-Survival (No.)	-	1318	5727	5006
-Survival	-	85%	81%	75%
Local Name	Botanical Name	Family		
Trees				
Nimba	<i>Azadiracta india</i>	Meliaceae		
Radhachura	<i>Peltophurum ferrugineum</i>	Caesalpiniaceae		
Karanja	<i>Pongamia pinnata</i>	Fabaceae		
Acacia	<i>Acacia auriculiformis</i>	Mimosaceae		



Debadaru	<i>Polyalthia longifolia</i>	Annonaceae
<b>Shrubs</b>		
Kadali	<i>Musa paradisiaca</i>	Musaceae
Pedipedika	<i>Abutilon persicum</i>	Malvaceae
Dalimba	<i>Punica granatum</i>	Puniaceae

### Green Belt Photos





## ANNEXURE-10

### CREP COMPLIANCE ( EC Condition No.-xiv) CHARGE CHROME PLANT, M/S FACOR LTD

Referring to the Charter on Corporate Responsibility for Environmental Protection Measures for “INTEGRATED IRON & STEEL INDUSTRY” compliance status & supporting documents are provided below as applicable.

8.0 INTEGRATED IRON & STEEL INDUSTRY					
SN	Plant Description	Compliance Requirement	Action Taken	Supporting Documents	Implementation Status
1	Coke Oven Plants	To meet the parameters PLD (% leaking colors), PLL (% leaking lids), PLO (% leaking off take), of the notified standards under EPA within three years by December 2005). Industry will submit time bound action plan and PER Chart along with the Bank Guarantee for the implementation or the time.	No coke oven plant exists.	Not Applicable	Not Applicable
		To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012.).	No coke oven plant exists.	Not Applicable	Not Applicable
2	Steel Melting Shop	Fugitive emissions - To reduce 30% by March 2004 and 100% by March 2008 (including installation of secondary dedusting facilities).	No steel melting shop exists.	Not Applicable	Not Applicable
3	Blast Furnace	Direct inject of reducing agents -- ----- by June 2013	No blast furnace exists.	Not Applicable	Not Applicable
4A	Solid Waste /Hazardous Waste Management	Utilization of Steel/ Melting shop (SMS)/ Blast Furnace (BF) Slag as per the following schedule: * By 2004 - 70% * By 2006 – 80% and * By 2007 – 100 %.	100% of generated slag is utilized.	Last 3-year slag generation & utilization report is provided as <b>Annexure No-1</b>	Complied
4B	Hazardous Wastes	Charge of tar sludge/ ETP sludge to Coke Oven by June 2003.	Due the plant is under ZLD, there is no ETP. And also there is No coke oven plant exists.	Not Applicable	Not Applicable
		Inventorization of the Hazardous waste as per Hazardous Waste (M& H), Rules, 1989 as amended in 2000 and implementation of the Rules by Dec. 2003. (tar sludge, acid sludge, waste Lubricating oil and type fuel falls in the category of Hazardous waste).	Hazardous waste inventory is available in hazardous waste authorization dated 13.06.22 valid till 31.03.26. Hazardous waste being disposed according to an authorized recycler as per HWM Rules 2016.	➤ Hazardous waste Authorization of FACOR is attached as <b>Annexure No.-2</b> ➤ Disposal record of hazardous waste is enclosed as <b>Annexure No.-3</b> and the authorization of the recycler is provided as <b>Annexure No-4</b>	Complied

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

5	Water Conservation/ Water Pollution	To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005.	Specific water consumption for charge chrome plant is less than 5 m3/t	Annexure -11 is enclosed for reference	Complied
		To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. – by June 2003.	Effluent from Surface Run Off Treatment Plant (SRTP) is being monitored on monthly basis by NABL accredited laboratories. The achieved parameters are under prescribed limit.	SRTP Monitoring report is enclosed as <b>Annexure No.-5</b>	Complied
6	General Requirement	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	<ul style="list-style-type: none"> <li>➤ One continuous stack monitoring system is installed in GCP stack.</li> <li>➤ Two numbers of AAQMS are installed in Charge Chrome Plant.</li> </ul>	<ul style="list-style-type: none"> <li>➤ CEMS calibration report is attached herewith as <b>Annexure No- 6.</b></li> <li>➤ Photos of CEMS &amp; AAQMS are provided as <b>Annexure No-7</b></li> </ul>	Complied
7	General Requirement	To operate the existing pollution control equipment efficiently and to keep proper records of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB/SPCB every three months.	Pollution control equipment (GCP) is fitted with online Pollution monitoring devices (Continuous Emission Monitoring System) which is connected with OSPCB server for tracking of the details like from running efficiency & standard of the emission.	System is in placed.	Complied
8	General Requirement	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	Study is being done for decarbonization by reputed Third party.	-	Being Complied. -
9	General Requirement	Use of Tar- free runner linings.	Tar- free runner linings are in use.	-	Complied
		De- dusting of Cast house at tap holes, runners, skimmers ladle and charging points.	Two nos. of dedusting unit have been installed to control fugitive emission	Photocopy of the dedusting unit has been attached as <b>Annexure No.-8</b>	Complied
		Suppression of fugitive emissions using nitrogen gas or other inert gas.	Two nos. of dedusting unit have been installed to control fugitive emission	Photocopy of the dedusting unit has been attached as <b>Annexure No.-8</b>	Complied



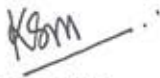
5	Water Conservation/ Water Pollution	To reduce specific water consumption to 5 m <sup>3</sup> /t for long products and 8 m <sup>3</sup> /t for flat products by December 2005.	Specific water consumption for charge chrome plant is 4.90 m <sup>3</sup> /mt of product for FY 2023-24.	Production: 79572Ton Total Water Consumption: 390756 KL	Complied
		To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. – by June 2003.	Effluent from Surface Run Off Treatment Plant (SRTP) is being monitored on monthly basis by NABL accredited laboratories. The achieved parameters are under prescribed limit.	SRTP Monitoring report is enclosed as <b>Annexure No.-5</b>	Complied
6	General Requirement	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	<ul style="list-style-type: none"> <li>➤ One continuous stack monitoring system is installed in GCP stack.</li> <li>➤ Two numbers of AAQMS are installed in Charge Chrome Plant.</li> </ul>	<ul style="list-style-type: none"> <li>➤ CEMS calibration report is attached herewith as <b>Annexure No- 6.</b></li> <li>➤ Photos of CEMS &amp; AAQMS are provided as <b>Annexure No-7</b></li> </ul>	Complied
7	General Requirement	To operate the existing pollution control equipment efficiently and to keep proper records of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB/SPCB every three months.	Pollution control equipment (GCP) is fitted with online Pollution monitoring devices (Continuous Emission Monitoring System) which is connected with OSPCB server for tracking of the details like from running efficiency & standard of the emission.	System is in placed.	Complied
8	General Requirement	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	Study is being done for decarbonization by reputed Third party.	-	Being Complied. -
9	General Requirement	Use of Tar- free runner linings.	Tar- free runner linings are in use.	-	Complied
		De- dusting of Cast house at tap holes, runners, skimmers ladle and charging points.	Two nos. of dedusting unit have been installed to control fugitive emission	Photocopy of the dedusting unit has been attached as <b>Annexure No.-8</b>	Complied
		Suppression of fugitive emissions using nitrogen gas or other inert gas.	Two nos. of dedusting unit have been installed to control fugitive emission	Photocopy of the dedusting unit has been attached as <b>Annexure No.-8</b>	Complied



	The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy and environment.	To study the possibility of slag and fly ash transportation back to the abandoned mines, to the abandoned mines, to fill up the cavities through empty railway wagons while they return back to the mines and its implementation.	100% of Slag is being utilized. Recommendations shall be followed in case of legacy slag.	Last 3-year slag generation & utilization report is provided as <b>Annexure No-1</b>	Complied
		Processing of the waste containing flux & ferrous wastes through waste recycling plant.	Filtered flue dust from GCP is being used to make pellets and 100% of GCP waste is recycled in the process.	-	Complied
		To implement rainwater harvesting.	3 nos. of rainwater harvesting ponds are present in plant to harvest a significant amount of rainwater.	Photographs are attached as <b>Annexure No.-9</b>	Complied
		Reduction Green House Gases by: * Reduction in power consumption. * Use of by – products gases for power generation. * Promotion of Energy Optimization technology including energy/ audit.	( i ) Sp. Power consumption target is being taken & maintained which is audited annually. (ii) Low power consumption devices are in use. (iii) Conventional lights are replaced by LEDs. (iv) Optimized operation efficiency of cooling Towers by replacing cell blades with energy saving blades. (v) Optimization of heat requirement in Boiler (v) Energy Audit has been conducted.	Energy Audit Certificate is enclosed as <b>Annexure No-10</b>	
		Energy recovery of top Blast Furnace (BF) gas.	No blast furnace exists.	Not Applicable	Not applicable
		To set targets for Resource Conservation such as Raw material, energy, and water consumption to match International Standards.	Targets on specific water consumption, energy intensity etc. are taken on yearly basis to improve Resource Management properly.	Ref. copy is enclosed as <b>Annexure No.-11</b>	Complied

		Up-gradation in the monitoring and analysis facilities for air and water pollution. Also to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.	Initiatives have been taken to improve water & air pollution monitoring & analysis. Real time data is being monitored through CEMS & CAAQMS. Training on the data and parameters are also given to the employees	Screenshot of online training program attached as <b>Annexure No-12</b>	Complied
		To Improve overall housekeeping.	The housekeeping team is dedicatedly working to improve housekeeping inside the plant premises. One mechanical road sweeping machine is also deployed to clean internal roads.	Photocopy of the Road sweeping machine is enclosed as <b>Annexure No-13</b>	Complied

For Ferro Alloys Corporation Limited



Chief HSE Officer

Krutisunder Mohapatra

## **SLAG GENERATION & UTILIZATION REPORT**

### **CHARGE CHROME PLANT, M/S FACOR LTD**

Year	Name of the Industries	Solid Waste	Generated Quantity (MT)	Utilized Quantity (MT)	Disposal Practices
2021-22	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	75378	75378	Used for land filling low lying areas & road making inside and outside plant premises
2022-23	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	65811.66	65811.66	Used for land filling low lying areas & road making inside and outside plant premises
2023-24	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	82745.71	82745.71	Used for land filling low lying areas & road making inside and outside plant premises

For Ferro Alloys Corporation Limited

Ksom  
Krutisunder Mahapatra  
CHIEF HSE  
M/s FACOR LTD





# STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII

Bhubaneswar - 751 012, India

**BY SPEED POST**

## FORM 2

[See rule 6(2)]

### RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE OCCUPIER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

1. Number of authorization: IND-IV-HW-288/ 10328 and date of issue: 13-06-2022
2. Reference of application (No. and date): 3230946, dtd. 27-11-2021 / 03-06-2022.
3. **M/s Ferro Alloys Corporation Limited (Charge Chrome Plant)** is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, utilization, disposal or any other use of hazardous or other wastes or both in the premises situated At -D. P. Nagar, Po - Randia, Dist- Bhadrak, Odisha- 756135.

#### Details of Authorization

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
1.	Schedules - I Stream - 5.1	Used / Spent Oil	10 T/A	Storage in containers over impervious floor under well ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha
2.	Schedules - I Stream -5.2/3.3/33.2	Waste / Residues Containing Oil	3 T/A	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal in the Authorized HW incinerator / Co-processing in Cement Kiln authorized by SPCB, Odisha / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF)

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
3.	Schedules - I Stream - 35.1	Exhaust Air or Gas Cleaning Residue	2500 T/A	Storage in containers over impervious floor with suitable parapet walls under well ventilated covered shed followed by recycle in the process / disposal through Actual Users having valid authorization from SPCB, Odisha / CHWTSDF
4.	Schedules - I Stream - 3.3	Waste oil filters	5 T/A	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal in the Authorized HW incinerator / Co-processing in Cement Kiln authorized by SPCB, Odisha / CHWTSDF
5.	Schedules - I Stream - 33.1	Empty Barrels	4 T/A	Storage on impervious floor under well ventilated covered shed followed by captive reuse / disposal through original supplier / Actual Users authorized by SPCB, Odisha

- (1) The authorization shall be valid up to **31-03-2026**.
- (2) The authorization is subject to the following general and specific conditions.

**A. General Conditions of authorisation:**

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire, etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty". Any accident in this respect shall be intimated to the Board immediately.



7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
9. An application for the renewal of an authorisation shall be made as laid down under these Rules.
10. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
11. Annual return shall be filed by 30<sup>th</sup> day of June of every year for the preceding period from April to March.

**B. Specific Conditions:**

1. Authorization granted herewith does not relieve you in complying with other provision laid down under Water (PCP) Act, 1974, Air (PCP) Act, 1981 and Environment (Protection) Act, 1986, and the Rules made there under.
2. This authorization is subject to statutory and other clearances from Govt. of Odisha and / or Govt. of India as and when applicable.
3. In case the quantity of generation of hazardous Waste exceeds the Authorized quantity, the industry / mine shall apply for amendment of Authorization order.
4. The industry / mine shall strictly comply to the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and amendments made thereafter.
5. Annual returns in Form - 4 (See Rules- 6 (5), 13 (8), 16 (6) & 20 (2)) shall be submitted to the Board for the financial year by 30th June of every year. It shall contain the detail quantities of generation, storage and disposal of different type of hazardous wastes such as recyclable, incinerable, land disposable.
6. Steps shall be taken for reduction and prevention of the hazardous waste generated or for recycling or reuse.
7. Environmental Information with respect to Air, Water, Hazardous Waste and Hazardous Chemicals shall be displayed at the main gate for public view.
8. The transport of the hazardous and other waste shall be in accordance with the provisions of the Rule, 2016 and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard.



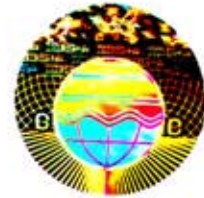
9. The occupier shall provide the transporter with the relevant information in **Form 9**, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per **Form 8**.
10. In case of transportation of hazardous waste and other wastes for recycling or utilization including co-processing to outside the state, the sender shall intimate both the State Pollution Control Boards before handing over the waste to the transporter.
11. Manifest system (Movement document) shall be strictly followed as per Rule-19 and to be submitted to this office as per the Rule. The industry / mine shall check the authenticity of the way bill of the transport vehicle to ensure supply of hazardous waste to the authorized destination.
12. The hazardous waste shall be sold if required only to Actual User having valid authorization from the State Pollution Control Board, Odisha and concerned SPC Board. Details of such wastes shall be entered in the passbook issued by respective SPCB.
13. All the hazardous waste shall be stored in impervious pits / containers / floors under cover shed with adequate capacity having spill containment facility. The spilled hazardous waste shall be re-collected and stored in impervious pits / containers / floors under cover shed prior to sale / disposal.
14. The schedule of hazardous waste and the quantity as specified shall only be disposed off as per the stipulation prescribed in this authorisation.
15. This authorization does not permit you to either receive and process or generate hazardous waste in case validity of Consent to Operate of your industry / mine ceases. However you can carry out handling, storage, treatment, transport and disposal of hazardous waste and other wastes generated previously during such period to avoid accumulation of hazardous waste.
16. The industry / mine shall store the accumulated hazardous waste for a period not exceeding 90 days and shall dispose as per the stipulation prescribed in this authorisation order. In case, generation of any category of Hazardous Waste is less than 10 T/A, then such waste can be stored up to a period of 180 days before disposal. In case of any violation, authorization granted shall be suspended / cancelled.
17. The industry / mine shall apply for renewal of authorization in Form - 1, 120 days before expiry of this authorization order enclosing Annual Return in Form - 4, Manifest copies in Form - 10 and compliance to the conditions stipulated in this order along with adequate processing fees.

18. In case of transportation of hazardous and other waste, the responsibility of safe transport shall be either of the sender or the receiver whosoever arranges the transport and has the necessary authorisation for transport from the concerned State Pollution Control Board. This responsibility should be clearly indicated in the manifest.
19. Hazardous Wastes having calorific value of more than 2500 Kcal/Kg shall not be landfilled. It can only be disposed through authorized actual users or incinerated in authorized Hazardous Waste incinerator or co-processing in authorized cement kiln.

  
Member Secretary

To

The CEO  
M/s Ferro Alloys Corporation Limited,  
(Charge Chrome Plant)  
At - D. P. Nagar, Po - Randia,  
Dist- Bhadrak, Odisha - 756135



Memo No. 10329  
Copy to the :

Dt. 13-06-2022

1. Collector & District Magistrate, **Bhadrak**.
2. Director, Factories & Boilers, Odisha, **Bhubaneswar**.
3. Regional Officer, State Pollution Control Board, Odisha, **Balasore**.
4. Guard file.

  
Senior Environmental Engineer



## MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's Name & Mailing Address (Including Phone No & email)	: 10300 Alloys Corporation Ltd, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000
2.	Senders authorization No.	: IND-IV-HW-288/10322 dt 12-6-22
3.	Manifest Document No.	: 001/23-24 dt 15-11-2023
4.	Transporter's Name & Address (including Phone No. and email)	: self
5.	Type of Vehicle	: (Truck/Tanker / Special Vehicle)
6.	Transporter's Registration No.	: NIL
7.	Vehicle Registration No.	: OR-01-V-4646
8.	Receiver's Name & mailing Address (including Phone No. and email)	: M. S. Swaraj Lubricants, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000
9.	Receiver's authorisation No.	: IND-IV-HW-1023/12667 dt 09-23
10.	Waste Description	: Ubeel oil
11.	Total Quantity	: 1.41 MT m3 or MT or KL
	No. of Containers	: 8 Nos.
12.	Physical From	: Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid
13.	Special Handling Instructions and additional Information	: a) Keep the material dry b) Never transport while hot and wet c) Avoid skin and eye contact d) Store in a dry and covered area e) Use safety shoes, helmet and goggles
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 respect in proper condition for transport by road according to applicable national government regulations.
	Types Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	
15.	Transporter Acknowledgment of Receipt of Wastes	
	Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	
16.	Receivers Certification for Receipt of Hazardous and other waste	
	Name & Stamp	Month Day Year 1 1 1 5 2 0 2 3
	Signature	



# MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's Name & Mailing Address (Including Phone No & email)	Ferrochrome Corporation Limited (Charge Chrome Plant) D.P. Nagar. PO. Rendra, Dist. Bhadrak, Odisha-756135																				
2.	Senders authorization No.	IND-IV-11W-288/10328 dt. 13.6.22																				
3.	Manifest Document No.	001/23-24 dt. 15.11.2023																				
4.	Transporter's Name & Address (including Phone No. and email)	Self																				
5.	Type of Vehicle	(Truck/Tanker / Special Vehicle)																				
6.	Transporter's Registration No.	NIL																				
7.	Vehicle Registration No.	OR-01-V-4646																				
8.	Receiver's Name & mailing Address (including Phone No. and email)	M/s. Swaraj Lubricants. At-Gobinda. PO. Haldipada. Dist. Balasore. Odisha. swarajlubricants@gmail.com																				
9.	Receiver's authorisation No.	IND-IV-11W-1028/12667 dt. 09.8.23																				
10.	Waste Description	Used oil																				
11.	Total Quantity No. of Containers	01.64 MT 8 Nos.																				
12.	Physical Form	Solid/Semi-Solid/Sludge/Oily Tarry/Slurry/Liquid																				
13.	Special Handling Instructions and additional Information	<ul style="list-style-type: none"> <li>a) Keep the material dry</li> <li>b) Never transport while hot and wet</li> <li>c) Avoid skin and eye contact</li> <li>d) Store in a dry and covered area</li> <li>e) Use safety shoes, helmet and goggles</li> </ul>																				
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 respect in proper condition for transport by road according to applicable national government regulations.																				
	Types Name & Stamp	 																				
15.	Transporter Acknowledgment of Receipt of Wastes	<table border="1"> <tr> <th colspan="2">Month</th> <th colspan="2">Day</th> <th colspan="3">Year</th> </tr> <tr> <td>1</td><td>1</td><td>1</td><td>5</td><td>2</td><td>0</td><td>23</td> </tr> </table>							Month		Day		Year			1	1	1	5	2	0	23
Month		Day		Year																		
1	1	1	5	2	0	23																
	Name & Stamp	 																				
16.	Receivers Certification for Receipt of Hazardous and other waste	<table border="1"> <tr> <th colspan="2">Month</th> <th colspan="2">Day</th> <th colspan="3">Year</th> </tr> <tr> <td>1</td><td>1</td><td>1</td><td>5</td><td>2</td><td>0</td><td>23</td> </tr> </table>							Month		Day		Year			1	1	1	5	2	0	23
Month		Day		Year																		
1	1	1	5	2	0	23																
	Name & Stamp	 																				



**FORM 9**  
[See rule 18 (2)]

**TRANSPORT EMERGENCY (TREM) CARD**

[To be carried by the transporter during transportation of hazardous and other wastes, provided by the sender of waste]

1. Characteristics of hazardous and other wastes:

S.No	Type of Waste	Physical properties	Chemical Constituents	Exposure Hazards	First Requirements	Aid
1.	Used Oil	1. Colour – Black 2. Order – Lube Oil 3. Vicious in nature	Branched Alkanes Cycloalkanes, Benzenes, Polly Aromatic Hydro Carbon, Decompositi on Products	Skin corrosion/ Irritation, Sensitization – Respiratory, Carcinogenicity	IF INHALED: Move the person to fresh air and keep comfortable for breathing IF ON SKIN: Wash immediately with plenty of soap and water. IF SWALLOWED: Immediately call for emergency number or doctor/ physician	

2. Procedure to be followed in case of fire: Move to away from the location to safe point and immediately contact the nearest fire station
3. Procedure to be followed incase of spillage/accident/explosion: Move to safe distance from the location and immediately contact the nearest fire station
4. For expert services, please contact:
5. Name and Address: M/S. FERRO ALLOYS CORPORATION,

CHARGE CHROME PLANT,  
DP NAGAR RANDIA,  
BHADRAK – 756135.

(i) Telephone No: 7735738480



(Name, Contact Number and Signature of sender)



Date: 15/11/2023

Place: Randia

Biswanath Panigrahi  
Head Env. - FACTOR  
Mob: 7735738480

## Annexure 4

Tel : 2440017/243074  
 FAX : 2440002/243074  
 E-mail : spcbod@spcbod.org  
 spcbod1@spcbod.org  
 Website : www.spcbod.org

### STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]  
 Paribesh Bhawan, A/11B, Nilakantha Nagar, Unit - VIII  
 Bhubaneswar - 751012, INDIA

**BY SPEED POST**

**FORM 2**  
 [See rule 6(2)]

**RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE ACTUAL USER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016**

- Number of authorization: IND-IV-HW-1028/12667 and date of issue: 09-08-2023
- Reference of application (No. and date) : 4562076, dtd. 10-12-2022/ 01-08-2023.
- M/s Swaraj Lubricants is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, recycling, recovery, preprocessing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated At - Govinda, Haldipada, Balasore, Odisha - 756027.


**Details of Authorization**

Sl. No.	Category of Hazardous Waste as per the Schedules I, II, III and IV of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
<b>Hazardous Waste for Recycling/ Re-processing</b>				
1.	Schedules - I (Stream - 5.1)/ Schedules - IV (Sl. No - 20)	Used Oil/ Spent Oil	1,500 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
2.	Schedules - I (Stream - 5.2, 3.1, 3.3, 3.4 & 4.3)/ Schedules - IV (Sl. No-20)	Waste Oil	6,000 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
<b>Hazardous Waste Generation for disposal</b>				
1.	Schedules - I (Stream - 4.1, 4.4 & 4.5)	Spent Clay Containing Oil / Oily Sludge or Emulsion / Organic Residues From Process / Sediments & Solid From Waste Oil	20 T/A	Storage in impervious pits / containers under well ventilated covered shed followed by Co-processing in Cement Kiln Authorized by SPCB, Odisha / disposal in Authorized Hazardous Waste Incinerator / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF) (In no case these hazardous wastes shall be used for making grease)

(1) The authorization shall be valid up to 31-03-2024.

(2) The authorization is subject to the following general and specific conditions.

Page #1/4



Hazardous Waste Authorization of the Recycler





# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services



## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00587

Date: 05.04.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	28.03.2024
			Sample Received on	:	29.03.2024
Sample Description	:	Waste Water	Sampling Procedure	:	APHA 1060 B
Sample Condition	:	Ice Preservation	Sampling Location	:	WW:- SRTS Outlet
			Sampling done by	:	Ashutosh Mohanty
Test Started on	:	29.03.2024	Test Completed on	:	05.04.2024

Chemical Testing

WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results
					WW4
1.	pH at 25°C	mg/l	APHA4500 H+B	6.5-9.0	7.19
2.	Suspended Solids	mg/l	APHA 2540 D	<100	31.0
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS3025(P-44)1993 RA 2003	<30	7.0
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	30.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> ,C	5	1.66
6.	Total Nitrogen	mg/l	APHA 4500-N	10	8.3
7.	Oil & Grease	mg/l	APHA 5520 B	--	ND
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	40
9.	Chromium as (Cr+6)	mg/l	APHA 3500 Cr B	--	<0.01

### TERMS AND CONDITION:-

1. The Test result is relevant only to the item tested.
2. This report shall not be reproduced in full or part without written approval of Visiontek consultancy services.(P) Ltd
3. The laboratory is not responsible for the authenticity of photocopied test report.
4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations
5. The laboratory's responsibility under this report is limited to: proven willful negligence.

\*\*\* End Report\*\*\*





# ENGINEERING AND ENVIRONMENTAL SOLUTIONS (P) LTD

Add: E-32, CDF Industrial Area, Chherath, Aligarh - 202122  
 Web: www.enggenvs.com, E-mail: enggenvsolution@gmail.com  
 Contact: 9540990415

## Calibration Certificate

Page No.1 of 1

Customer Name & Address	Certificate No.	EES/CEMS/102
<b>Ferro Alloys Corporation Limited</b> D.P. Nagar, Randia, District - Bhadrak - 756135.	Date of Issue	25.09.2023
	Date of calibration	23.09.2023
	Calibration Valid Upto	22.09.2024
	Service request no. & Date	

Instrument Detail				
Name	Online Continous Emission Monitoring System	Parameters	Range	Least Count
Make	E&E Solutions	SPM	0 - 800 $\mu\text{g}/\text{Nm}^3$	1 $\mu\text{g}/\text{Nm}^3$
Ins. Id.	ENE01718	Sox	0 to 1000 ppm	1 ppm
Sr. No	2209007101556	Nox	0 to 1000 ppm	1 ppm
Model	Nil	CO	0 to 1000 ppm	1 ppm

Environmental Condition			
Temperature (°C)	25 $\pm$ 3	Humidity (%RH)	35 to 70

Calibration Result For SPM				
S.No	DUC Reading ( $\text{mg}/\text{Nm}^3$ )	Standard Reading ( $\text{mg}/\text{Nm}^3$ )	Calibration Factor	Error (%)
1	5	5	0.96	4.60
2	51	50	0.97	2.82
3	101	100	0.99	1.00
4	198	200	1.01	1.00

Calibration Result for SO2					
S.No	DUC Reading (ppm)	Standard Reading (ppm)	%Error	Calibration Factor	Type A Std. Uncertainty
1	503.0	500.0	0.600	0.994	0.58

Calibration Result for NO2					
S.No	DUC Reading (ppm)	Standard Reading (ppm)	%Error	Calibration Factor	Type A Std. Uncertainty
1	501.0	500.0	0.200	0.998	0.58

Calibration Result for CO Meter					
S.No	DUC Reading (ppm)	Standard Reading (ppm)	%Error	Calibration Factor	Type A Std. Uncertainty (ppm)
1	991.0	997.0	0.602	1.006	0.58

Results presented in this calibration certificate relates only to the item mentioned  
 The calibration results reported in this certificate are valid at the time of and under the stated conditions.  
 The uncertainties are for a confidence probability not less than 95%, unless specified otherwise  
 EES is not responsible for any change in results of instrument after calibration  
 This certificate shall not be reproduced except in full without written permission of Engineering and Environmental Solutions.  
 DUC Stands for Device Under Calibration.



Calibrated by

Report prepared by

Approved by

**STACK EMISSION MONITORING  
CHARGE CHROME PLANT, M/S FACOR LTD**



**CAAQMS Station**





## Annexure 8



**Dedusting System**

## Annexure 9



**Rainwater Harvesting Ponds**

# MANDATORY ENERGY AUDIT REPORT



## FERRO ALLOYS CORPORATION LIMITED

CHARGE CHROME PLANT,  
RANDIAHAAT, BHADRAK  
ODISHA-756135, INDIA

### DESIGNATED CONSUMER

*Registration Number: (INS0100OR)*

*Submitted by*



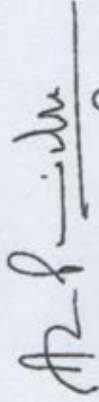
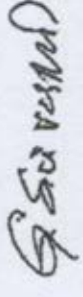


## EAST COAST SUSTAINABLE PRIVATE LIMITED



6-80/1, PRIYA GARDENS,  
P.O. SIMHACHALAM, VISAKHAPATNAM  
ANDHRA PRADESH – 530028  
CIN: U74999AP2018PTC108807

[www.eastcoast.net.in](http://www.eastcoast.net.in)

**August - 2021**



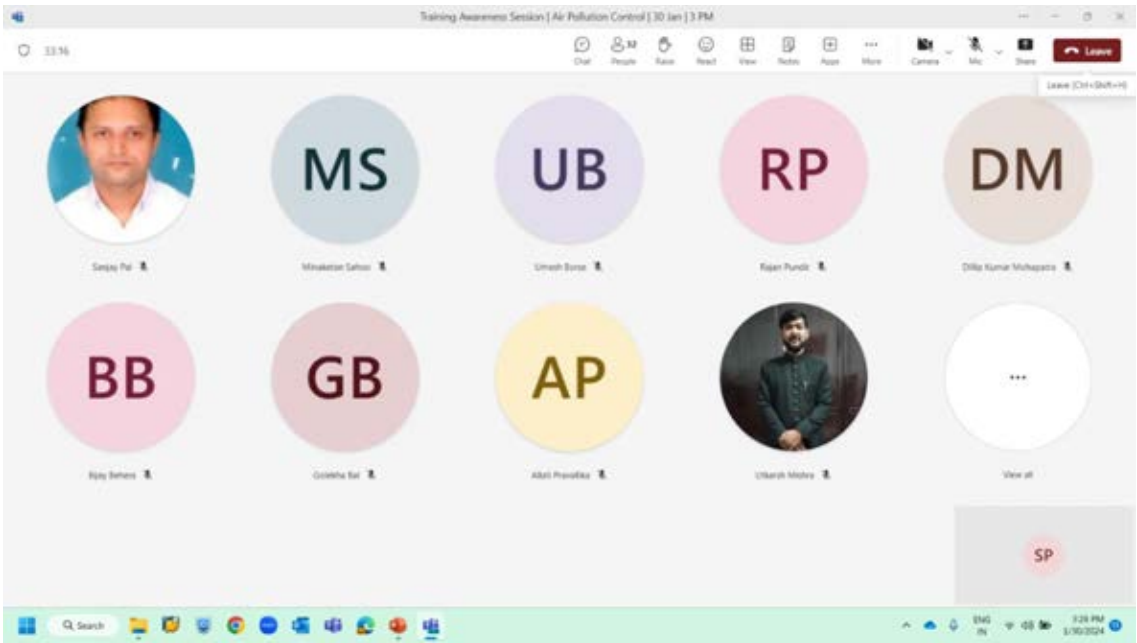
Signature: 	Signature: 
Name of the Energy Manager: Mr. Ajit Parida	Name of Accredited Energy Auditor: G. Srinivasa Rao
Registration Number: INS01000R	Registration Number: AEA -- 0251
Name of the Company: Vedanta-FACOR	G. Srinivasa Rao, MIE
Email Address: <a href="mailto:ajit.parida@vedanta.co.in">ajit.parida@vedanta.co.in</a>	Accredited Energy Auditor (BEE)
Mobile Number: +91 7504990134	CEA-1574, AEA-0251
Plant Address: Vedanta-FACOR (Ferro Alloys Corporation Limited), Charge Chrome Plant, Randia haat, D.P Nagar, Dist. Bhadrak, Odisha-756135, India	
	
AJIT KUMAR PARIDA B.E. (Electrical) Certified Energy Manager EM-5737, SCC(HT) No-303	

	UNIT LEVEL SUSTAINABILITY KPIs (CHARGE CHROME PLANT & FACOR POWER LTD)		
	DOC. NO. FACOR-IMS-MR-04		
Issue No.: 01	Issue date: 01.11.2021	Revision date : --	Revision No. : 00

SL NO.	OBJECTIVE	Achievement FY 24	TARGETS FY 24
1	Specific Energy Consumption (CCP)	3480 KWH/MT	3400 KWH/MT
	Auxiliary Power (% of generation - FPL)	12.37%	11.2%
2	Specific Water Consumption (CCP)	1.05 KL/MT	1.10 KL/MT
	Specific Water Consumption (FPL)	3.58 KL/MWH	3.30 KL/MWH
3	Waste Reduction	37.05	-19.9
4	Specific GHG Emission	4 TCO2eq./MT	3.38 TCO2eq./MT

  
Approved By  
Chief HSE

TRAINING AIR POLUUTION CONTROL





## Annexure 13



**Mechanical Road Sweeping  
Machine**



# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR- 00583

Date: 05.04.2024

Name & Address of the Customer	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak
Sample Description	:	Sewage Water (STP)
	Date of Sampling	: 28.03.2024
	Sample Received on	: 29.03.2024
	Sampling Procedure	: APHA 1060 B
Identification by Customer	:	STP-1, STP-2
	Sampling Location	: S-1: Water From Inlet S-2: Water From Outlet
Sample Condition	:	Ice Preserved
	Sampling done by	: Ashutosh Mohanty
Test Started on	:	29.03.2024
	Test Completed on	: 05.04.2024

### Chemical Testing :

#### A. Waste Water

SL No.	Parameters	Unit	Standard (Inland Surface water) Part-A	Test methods	S-1	S-2
1	Total Suspended Solids	mg/l, max	100	APHA 2540 D	39	25
2	pH at 25°C	-	6.5-9.0	APHA 4500H <sup>+</sup> B	7.10	7.27
3	Biochemical Oxygen Demand (as BOD) , 3 Days at 27°C	mg/l, max	30	IS 3025(P-44); 1993 RA 1999	65	20
4	Fecal Coliform (as TC)	mg/l	APHA 9221 E	<1000	250	83

#### TERMS AND CONDITION:-

1. The Test result is relevant only to the item tested.
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5. The laboratory's responsibility under this report is limited to; proven willful negligence

\*\*\* End Report\*\*\*







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• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## EST REPORT

Test Report No: ENVLAB/24-25/TR-00585

Date: 05.04.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	28.03.2024
			Sample Received on	:	29.03.2024
Sample Description	:	Waste Water	Sampling Procedure	:	APHA 1060 B
Sample Condition	:	Ice Preservation	Sampling Location	:	WW-2: Cooling Tower 1 Waste Water
			Sampling done by	:	Ashutosh Mohanty
Test Started on	:	29.03.2024	Test Completed on	:	05.04.2024

Chemical Testing

WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results
					WW2
1.	pH at 25°C	mg/l	APHA4500 H <sup>+</sup> B	6.5-9.0	7.33
2.	Suspended Solids	mg/l	APHA 2540 D	<100	25.0
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS3025(P-44)1993 RA 2003	<30	3.0
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	13.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> ,C	5	0.72
6.	Total Nitrogen	mg/l	APHA 4500-N	10	1.88
7.	Oil & Grease	mg/l	APHA 5520 B	--	2.0
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	38

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Reviewed by

Approved by





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● Information Technology  
● Public Health Engineering

● Mine Planning & Design  
● Mineral/Sub-Soil Exploration  
● Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00586

Date: 05.04.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 28.03.2024
		Sample Received on	: 29.03.2024
Sample Description	: Waste Water	Sampling Procedure	: APHA 1060 B
Sample Condition	: Ice Preservation	Sampling Location	: WW-3: Cooling Tower 2 Waste Water
		Sampling done by	: Ashutosh Mohanty
Test Started on	: 29.03.2024	Test Completed on	: 05.04.2024

### Chemical Testing

#### WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results WW3
1.	pH at 25°C	mg/l	APHA 4500 H <sup>+</sup> B	6.5-9.0	9.18
2.	Suspended Solids	mg/l	APHA 2540 D	<100	35.0
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS 3025 (P-44) 1993 RA 2003	<30	6.0
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	22.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> C	5	1.3
6.	Total Nitrogen	mg/l	APHA 4500-N	10	6.1
7.	Oil & Grease	mg/l	APHA 5520 B	--	2.8
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	40

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● Mine Planning & Design  
● Mineral/Sub-Soil Exploration  
● Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00587

Date: 05.04.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	:	28.03.2024
			Sample Received on	:	29.03.2024
Sample Description	:	Waste Water	Sampling Procedure	:	APHA 1060 B
Sample Condition	:	Ice Preservation	Sampling Location	:	WW-: SRTS Outlet
			Sampling done by	:	Ashutosh Mohanty
Test Started on	:	29.03.2024	Test Completed on	:	05.04.2024

Chemical Testing

WATER :

Sl. No	Parameter	Unit	Testing Methods	Standard as per CTO	Analysis Results
					WW4
1.	pH at 25°C	mg/l	APHA4500 H+B	6.5-9.0	7.19
2.	Suspended Solids	mg/l	APHA 2540 D	<100	31.0
3.	Biochemical Oxygen Demand (as BOD at 27°C For 3 days)	mg/l	IS3025(P-44)1993 RA 2003	<30	7.0
4.	Chemical Oxygen Demand as COD	mg/l	APHA 5220-C	<250	30.0
5.	Ammonical nitrogen (as NH <sub>4</sub> -N)	mg/l	APHA 4500-NH <sub>3</sub> C	5	1.66
6.	Total Nitrogen	mg/l	APHA 4500-N	10	8.3
7.	Oil & Grease	mg/l	APHA 5520 B	--	ND
8.	Fecal Coliform	MPN/100 ml	APHA 9221 E	<1000	40
9.	Chromium as (Cr+6)	mg/l	APHA 3500 Cr B	--	<0.01

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\*\*\* End Report\*\*\*



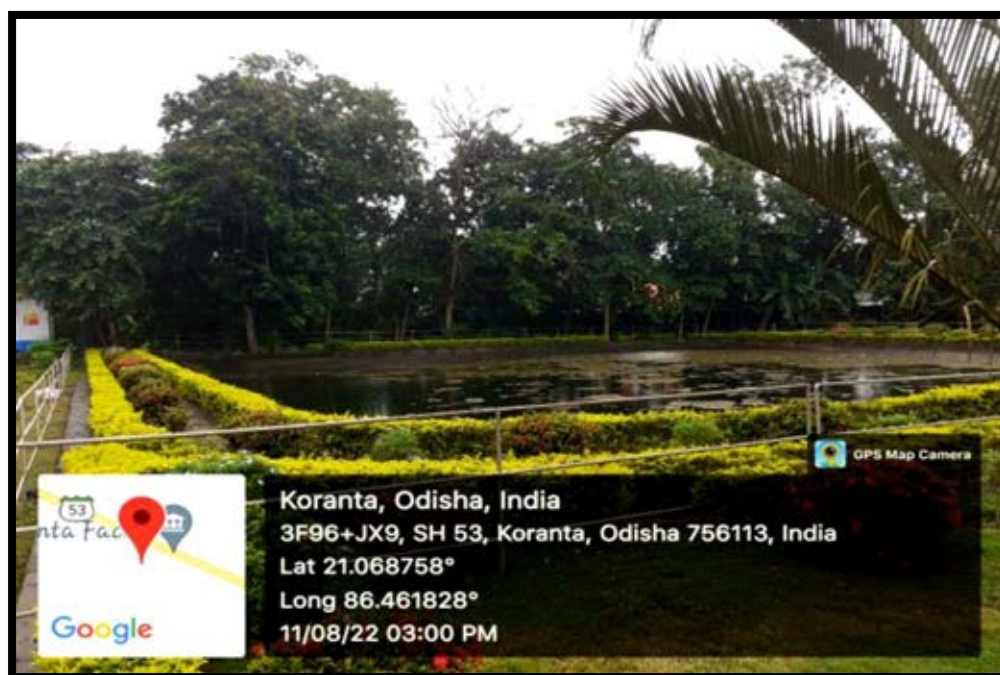
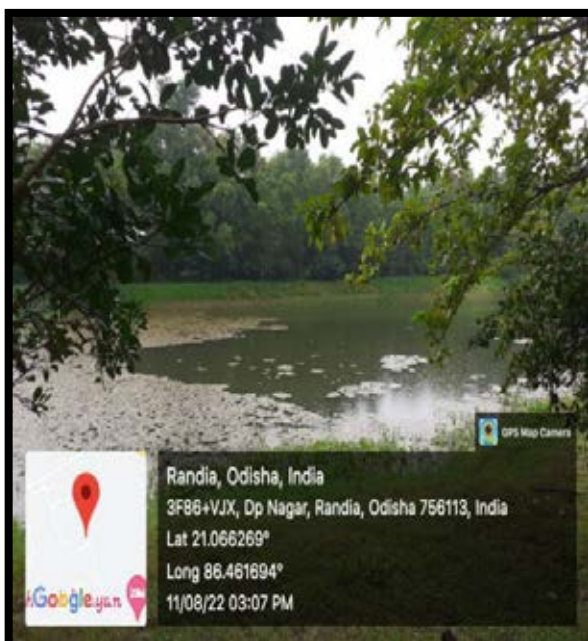
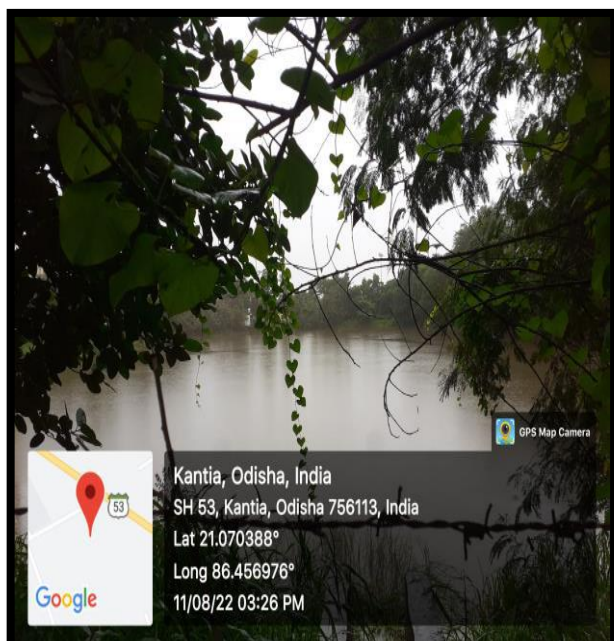
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## Annexure-12



**Rainwater Harvesting Ponds**



## Annexure 13

### DG Set with Acoustic Enclosure





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Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## ANNEXURE-13

### TEST REPORT

Test Report No: ENVLAB/24-25/TR-00577

Date: 05.04.2024

Name of the Industry	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nag Randia, Bhadrak	Date of Sampling	:	28.03.2024
Sample Description	:	NOISE	Sample Received on	:	29.03.2024
Sampling done by :	:	Ashutosh Mohanty	Sampling Procedure	:	IS 9989: 2020

Location ID	Location	Noise Level in dB(A) leq Day Time	Noise Level in dB(A) leq Night time
S-1	NEAR 45 MVA FURNACE	68.8	60.3
S-2	NEAR ADMINISTRATIVE BUILDING	60.5	45.7
S-3	NEAR AGGLOMERATION PLANT	73.1	69.2
S-4	NEAR AUTO GARAGE	66.2	57.5
S-5	NEAR BRIQUETTE STORAGE AREA	70.6	62.1
S-6	NEAR CENTRAL STORE	57.4	46.3
S-7	NEAR DRYER PLANT	74.2	68.9
S-8	NEAR FACOR COLONY	58.1	46.7
S-9	NEAR FINISHED PRODUCT HANDLING	74.5	61.3
S-10	NEAR GCP	72.5	66.2
S-11	NEAR MAIN GATE	67.1	53.5
S-12	NEAR MATERIAL RECOVERY PLANT	72.1	69.4
S-13	NEAR MRSS SWITCH YARD	66.5	57.2
S-14	NEAR STORAGE AREA	58.6	41.5
S-15	NEAR VEHICLE PARKING AREA	61.9	48.1
S-16	NEAR WATER COOLING TOWER AREA	73.1	68.9
S-17	OHC	58.3	49.2
Limit		75.0	70.0



## **Annexure 14**

### Charge Chrome Plant of M/S FACOR LTD

#### **IME/PME Abstract**

Year	IME Conducted	PME Conducted
2021-22	93	920
2022-23	3329	1195
2023-24	2117	1725



### Initial Medical Examination (IME)

Doe - 12/07/23  
Validity - 11/07/24

**FORM NO. 31- A**  
**HEALTH RECORD**  
(PRESCRIBED UNDER RULE 62-1)

**VEDANTA FERRO ALLOYS CORPORATION LTD.**  
CHARGE CHROME PLANT, RANDIA

**REPORT OF MEDICAL EXAMINATION (PRE-EMPLOYMENT/ PERIODICAL / OTHERS)**

mob. no. [REDACTED]

• Name of the employee :	[REDACTED]	Sex: Male / Female
• Employment no. :	[REDACTED] (20 yrs)	
• Date of birth/age :		
• Date of employment :		
• Length in service :		
• Nature of job :	management (Trainee)	
• Identification marks :	A black mole on face	
• General Survey :	Good / Fair / Poor	

Health

• Blood group :	B positive	
• Eye vision :	Normal / Abnormal	
	Use of glass - Yes / No	
• Hearing :	Normal / Abnormal	
• Respiratory system & chest measurement :		
	Inspiration - 84 cm	
	Expiration - 80 cm	
	Respiratory Rate / min. - 18 b/min	
	Remarks if any -	
• Cardiovascular system :		
	Pulse rate - 78 / min	
	Bp - 124/80 mm of Hg	
	Heart sounds - (N) S.S. - (N) Mo.	

RE-6/6, LE-6/6  
Near vision = N/6  
Colour vision = (N)

NAD BIL VERD

030/16/0116/101

- Abdomen Tenderness : Yes / No  
Liver : Normal / Enlarged  
Spleen : Normal / Enlarged
- Nervous system :  
History of fits : Yes / No  
Epilepsy : Yes / No  
Remarks on mental health : NIK
- Locomotor system : Normal / Abnormal
- Skin condition : Normal / Abnormal  
Remarks on any skin disease noticed - NIK
- Hernias : Absent / Present
- Hydrocele : Absent / Present
- Present complaint, if any
- Summary of findings

Heart disease  
Hypertension  
Diabetes  
T.B.  
Epilepsy  
Poisoning  
Dental  
Occupational disease, if any

• Recommendation, if any  
For any further investigation.

Signature of the Employee

Signature of the Medical Officer  
VEDANTA FACOR

## Periodic Medical Examination (PME)

REGD. NO.- MOB. NO.		DATE OF EXAM. <u>11/3/24</u> VALIDITY UPTO <u>28/2/25</u>
<b>FORM NO. 31-A</b> HEALTH RECORD (PREScribed UNDER RULE 6Z-1) <b>VEDANTA FERRO ALLOYS CORPORATION LTD.</b> CHARGE CHROME PLANT, RANDIA <u>Almarco</u>		
<b>REPORT OF MEDICAL EXAMINATION (PRE-EMPLOYMENT / PERIODICAL / OTHERS)</b>		
<ul style="list-style-type: none"> <li>• Name of the employee :</li> <li>• Employment no. :</li> <li>• Date of birth/age :</li> <li>• Date of employment :</li> <li>• Length in service :</li> <li>• Nature of job :</li> <li>• Identification marks :</li> <li>• General Survey :</li> </ul>	<div style="border: 1px solid black; height: 20px; width: 150px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <span>Sex : Male/Female</span> <span><u>31</u></span> </div> <p><u>28/07/1992</u></p> <p><u>Assistant manager.</u></p> <p><u>A black male on</u></p>	
Health : <u>Good / Fair / Poor</u>		
Height - <u>165</u> - Cm. Weight - <u>78</u> - Kg.		
<ul style="list-style-type: none"> <li>• Blood group :</li> <li>• Eye vision :</li> <li>• Hearing :</li> <li>• Respiratory system &amp; chest measurement :</li> <li>• Cardiovascular system :</li> </ul>	<p><u>A-ve</u></p> <p>Normal / Abnormal <u>RE-616,</u></p> <p>Use of glass - Yes / No <u>LE-616,,</u></p> <p>Normal / Abnormal <u>NEAR.</u></p> <p>Inspiration - <u>84cm</u></p> <p>Expiration - <u>82cm</u></p> <p>Respiratory Rate / min - <u>18bh</u></p> <p>Remarks if any -</p> <p>Pulse rate - <u>84bh</u></p> <p>Bp- <u>120/80 mmHg</u></p> <p>Heart sounds- <u>(M)</u></p>	



• Abdomen Tenderness : Yes/ No  
Liver : Normal / Enlarged  
Spleen : Normal / Enlarged

• Nervous system :  
History of fits : Yes / No  
Epilepsy : Yes / No  
Remarks on mental health : *NIL*

• Locomotor system : Normal / Abnormal

• Skin condition : Normal / Abnormal  
Remarks on any skin disease noticed - *NIL*

• Hernias : Absent / Present


• Hydrocele : Absent / Present

• Present complain, if any

• Summary of findings  
Heart disease  
Hypertension  
Diabetes  
T.B.  
Epilepsy  
Poisoning  
Dental  
Occupational disease, if any  
*NIL*

• Recommendation, if any  
For any further investigation

*- All Reports are WNL  
- He is Fit to continue E. work.*

  
Signature of the Employee

*Dr. Anu - 1/3/24*  
Signature of the Medical Officer

**MEDICAL OFFICER  
VEDANTA FACOR**

**Charge Chrome Plant, M/s Ferro Alloys Corporation Limited.**

Environment Management Plan Compliance				
		Mitigation Measures	Actions Taken	Compliance Status
1	Water Environment	The plant would be designed on the concept of 'zero discharge' of plant effluent	The Plant follows Zero effluent discharge policy. No effluent is being discharged outside the plant.	Complied
2		The water used for furnace & gas cleaning plant operation are completely recycled with proper water treatment.	The cooling water is being recycled through pressure filters.	Complied
3		8235 Nos. of trees are planted & 3500 sq. m. Gardens developed inside the plant for soil & water conservation	6675 nos. of plants have been planted till date. Gardens also have been developed inside the plant premises.	Being Complied
4		The domestic effluents will be treated through STP of adequate size and the treated water shall be used for gardening. Canteen wastewater to soak pit through settling pit.	STP has been installed to treat domestic wastewater and treated water is being used for gardening purpose	Complied
5		The plant concrete drainage network system has been constructed for most of the areas & it is connected to 9 Nos. of water recharging pits (13 wells) to take care of storm water.	Concrete drainage network has been constructed and recharging pits have been constructed to take care of storm water. Photocopy is enclosed as <b>Annexure 1</b>	Complied
6		Developing a settling pond to collect storm water around the premises to prevent it from any contamination and recirculating by pumping system for plantation & water sprinkling for dust suppression. Also, for design and implementation of Roof-Top rainwater harvesting	Rainwater harvesting ponds have been developed to store storm water. The water is being used for plantation and dust suppression. Photocopy is enclosed as <b>Annexure 2</b> .	Complied

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

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T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

*(Signature)*  
*(Signature)*

7	Air Environment	Bag filter with designed outlet dust concentration of 50 mg/Nm <sup>3</sup> ;	Outlet dust concentration is within the limit and analysis report has been attached as <b>Annexure 3</b> .	Being complied
8		The event of failure of any pollution control equipment, automatic tripping in the control system, shall be provided	Air pollution control device (Gas cleaning plant) has been provided with interlocking system.	Complied
9		Attempt shall be made to use low sulfur coke to the possible extent	Coke with sulfur content of < 0.7 % (wt.) is used in the process. Total consumption for the year 2023-24 is 36102 MT. Testing report is enclosed as <b>Annexure 4</b>	Complied
10		Flame temperature will be maintained to ensure emission of less NO <sub>x</sub>	Emission of NO <sub>x</sub> from GCP bag filters are monitored through external NABL accredited lab. Report of the same has been attached with the <b>Annexure 3</b>	Complied
11		All vehicles and their exhausts would be well maintained and regularly tested for emission concentration	PUC certificate is maintained for all vehicles. Reference copy is enclosed as <b>Annexure 5</b>	Complied
12		Regular preventive maintenance of pollution control equipment;	It is being maintained regularly. Reference copy is enclosed as <b>Annexure 6</b>	Complied
13		Stack emissions shall be regularly monitored by FERRO ALLOYS CORPORATION LTD. / SPCB/external agencies on periodic basis as per statutory requirements.	It is being monitored regularly. Report for the same is enclosed as <b>Annexure 3</b>	Complied
14		Jet Pulse bag filters at all dry material conveying and transfer points	For controlling dust pollution in conveying and transfer points Dedusting unit with bag filter system has been installed. Photocopy is enclosed as <b>Annexure 7</b>	Complied
15		Regular dust suppression with water sprinkler on the haul roads;	Regular water sprinkling is being done through mobile sprinkler. Photocopy is attached for reference as <b>Annexure 7</b>	Being complied
16		Plant roads & approach roads shall be made of bitumen/concrete;	All internal road and connecting road from project site to main highway connected with PQC (Pavement Quality Concrete Road). Photocopy is attached for reference in <b>Annexure 8</b>	Complied
17		Areas between various sections and truck parking areas shall be made of concrete/bitumen/brickwork;	Photocopy attached for reference in <b>Annexure 8</b>	Complied
18		Open areas within the plant premises and along with boundaries of the plant premises shall be covered under greenbelt/plantation	PP have planted native species of trees around the plant boundaries. PP is currently having 34.84% of greenbelt coverage as per Greenbelt assessment by expert agency.	Complied
19		Construction materials such as sand etc. shall be fully covered during transportation to/from the plant site by road.	It is being followed and implemented	Complied
20		Installation of dust suppression system i.e. Dry Fog System near the fugitive dust generation sources in the Metal Recovery Plant.	Water sprinkling system has been installed in the fugitive dust generation points in metal recovery plant. Photographs to be attached	Complied
21		GCP stack emission monitoring	Stack emission monitoring is being carried out on monthly basis. Monitoring Report has been attached as <b>Annexure 3</b>	Complied

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22	Noise Environment	Plantation around the plant boundary will create a noise barrier for attenuating noise level.	Greenbelt along with stone patching boundary wall in the periphery of the plant boundaries has been developed to create a noise barrier for attenuating noise level.	Complied
23		Machinery design specifications of all the equipment in the Silico manganese plant will be to operate with noise level shall not exceed 85dBA as per the requirement of OSHA (Occupational Safety and Health Administration).	There is no silico manganese plant. So, this is not applicable.	Not applicable
24		Provision of acoustic enclosures to modulate the noise generated by machines.	Acoustic enclosures have been provided in the heavy noise generating equipment like DG sets, Compressors etc. Photographs enclosed as <b>Annexure 9</b>	Complied
25		Periodical lubrication of the heavy vehicles will help to keep the noise & vibration level at minimum.	It is being maintained.	Complied
26		Provision of Protective device like earmuff/plugs to the workers	Ear plugs have been provided to the workers working in high noise prone area. Reference copy is enclosed as <b>Annexure 10</b>	Complied
27		Post health check-ups of employees & contractual labourers working in the noise prone areas	Health check-ups is being carried out regularly for employees & contractual laborers working in the noise prone areas. PME attached as <b>Annexure 11</b> .	Being complied

28	Water Resources	Continuous attempt shall be made to optimize/reduce the use of water;	Water Policy has been framed and implemented along with that VSAP (Vedanta Sustainability Assurance Program) is maintained. Regular trainings have been given to the employees to use the water in a sustainable way. Details are enclosed as <b>Annexure 12</b>	Being complied
29		The wastewater generation from cooling tower blow down shall be minimized when COC is maintained at 6.	It is being complied & maintained	Complied
30		The makeup water for the cooling tower will be minimum, thereby facilitating water conservation.	There is minimal water requirement as makeup water in cooling tower. Raw water is treated through treatment unit and used in cooling purpose. To minimize makeup water requirement recirculation water is filtered through pressure filters and again used in cooling purpose.	Complied
31		Continuous attempt shall be made to avoid wastage and leakage of water	Leakage points & wastage areas are regularly identified & rectified. Regular awareness sessions have been conducted to sensitize employees about water conservation. Training program photographs are enclosed with <b>Annexure 13</b>	Complied
32		100% wastewater shall be recycled back after treatment	All wastewater is being treated through treatment unit and recycled in process.	Complied
33		Regular record of water consumption on daily basis shall be maintained	Digital water flowmeter with telemetry system has been installed for this purpose. Reference copy is enclosed as <b>Annexure 14</b>	Complied
34		Toilets and bathrooms shall be provided at site	It has been provided at site. <b>Annexure 14</b>	Complied
35		Water harvesting shall be carried out.	Rainwater water harvesting initiatives has been implemented. 3nos of recharging ponds have been developed to water harvesting purpose. Photographs attached as <b>Annexure 2</b>	Complied

36	Ecology	The species proposed to be planted shall be selected based on the criteria prescribed by CPCB as "Guidelines for Developing Greenbelts"	Native species have been selected for plantation as per guidance of forestry office. Details of the species is enclosed as <b>Annexure 15</b> .	Complied
37		Local species shall be preferred	Plantation of local native species have been preferred. Details of the species is enclosed as <b>Annexure 15</b> .	Complied
38		A qualified horticulturalist shall be deployed for proposed greenbelt development/plantation	A horticulturalist has been deployed for proposed greenbelt development/plantation	Complied
39		Proper fencing shall be carried out around the area where plantation is being carried out	Being followed in the required areas while plantation.	Complied
40		Necessary clearance shall be obtained from the statutory authorities due to the proposed plant on the ecological sensitive areas and proper management plan as suggested in the conservation plan shall be implemented seriously	The plant area is not coming under ecological sensitive area. The plant is established within the predefined industrial area. So, this point is not applicable	Not applicable



41	Solid Waste	Attempt shall be made to utilize the waste to maximum possible extent	100% of High-Volume Low Toxicity of waste is being utilized. Waste Utilization report is attached as <b>Annexure 16.</b>	Complied
42		Proper records of the solid waste to be generated and their usages for different purposes shall be maintained	Solid waste generation & utilization records are maintained. Waste Utilization report is attached as <b>Annexure 16</b>	Complied
43		Area used for storage of solid waste, if required at plant site shall be fenced properly. Continuous water spray shall be made for dust suppression and pucca road shall be constructed up to storage yard	As 100% of High-Volume Low Toxicity of waste is being utilized, so there is no storage area that to be fenced.	Not applicable
44		Dumping of solid waste shall be made in systematic manner and shall be levelled and compacted from time to time with layer of earth. At the end, the site shall be reclaimed by appropriate species of trees	As 100% of High-Volume Low Toxicity of waste is being utilized, so there is no solid waste dump.	Not applicable
45		Suitable drainage system shall be developed for surface runoff water during monsoon and at places settling/catch pits shall be provided to arrest any solid particles before it shall be flowing over to natural drainage system of the area	Drainage systems has been provided to transfer natural drainage water to collection pit for further treatment in SRTF. Photographs enclosed as <b>Annexure 17</b>	Complied
46		Dumping site shall be properly fenced and surrounded by green belt	As 100% of generated slag is being utilized so there is no requirement of fencing	Not applicable
47		Regular ambient air quality for dust and water monitoring shall be carried out around the dumping site	Monitoring of air quality and water quality is being carried out around the plant on regular basis. Report enclosed with <b>Annexure 18</b>	Complied
48		Lubricating waste oil shall be collected separately in drums and shall be sold to authorized external agency for further treatment	Separate drums are used to store lubricating waste oil and it is sold to SPCB authorized agency. Form 10 copy enclosed with <b>Annexure 19</b>	Being Complied

For Ferro Alloys Corporation Limited

*KSM*

Chief HSE Officer

Krutisunder Mohapatra

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

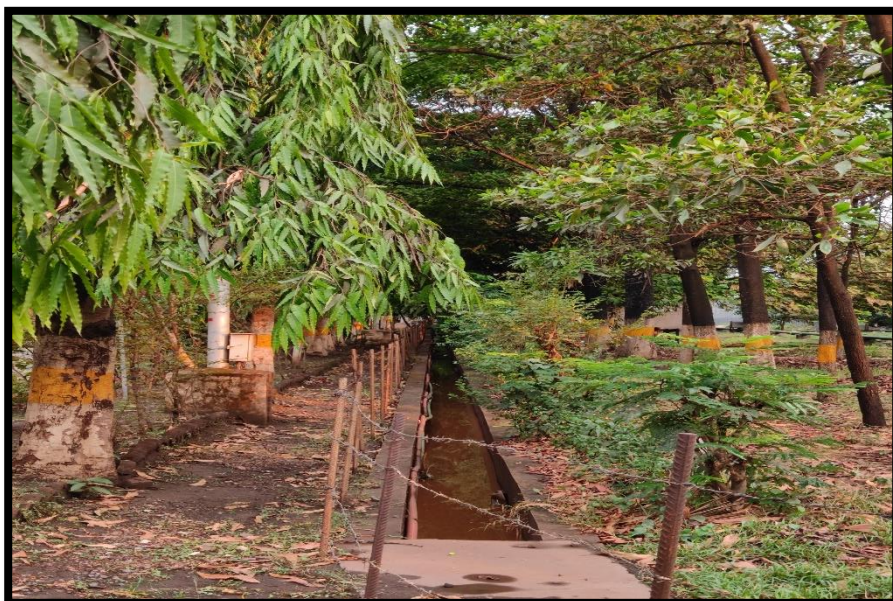
Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

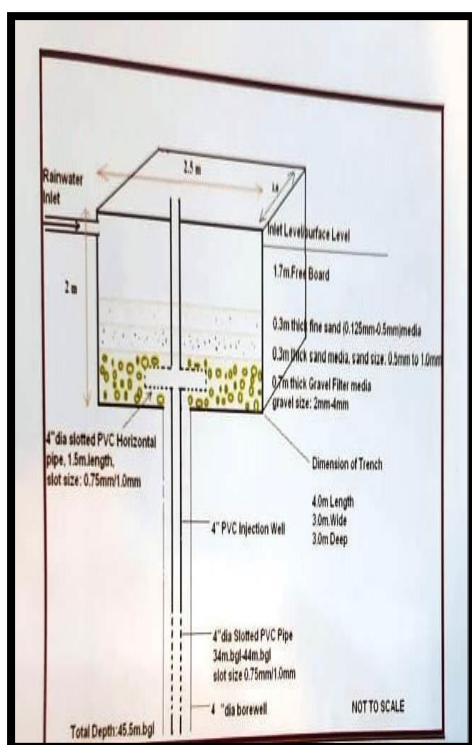
T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

**EMP Compliance Annexure 1**



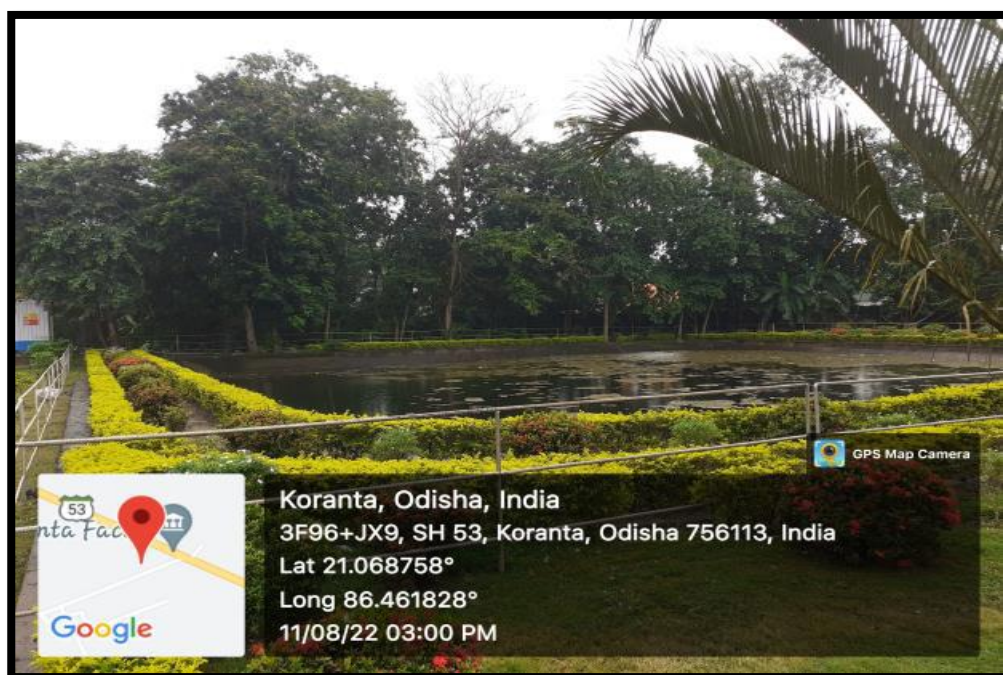
Concrete Drainage System



Groundwater recharge well



**EMP Compliance Annexure 2**




Rainwater harvesting Ponds.



## EMP Compliance Annexure 3

### Charge Chrome Plant, M/S FACOR Ltd. GCP Stack Emission Monitoring Report



**Visiontek Consultancy Services Pvt. Ltd.**  
(Committed For Better Environment)  
Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018  
Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

Laboratory Services  
 Environment Lab  
 Food Lab  
 Material Lab  
 Soil Lab  
 Mineral Lab  
 &  
 Microbiology Lab

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

**TEST REPORT**  
 Test Report No: ENVLAB/23-24/TR-15172 Date: 05.03.2024

Name of the Industry	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 22.02.2024	
		Sample Received on	: 23.02.2024	
Sample Description	Source Emission	Sampling Procedure	: VCSPL/SOP/003, Dt. 01.08.2019	
		Sampling Location	: ST-4: GCP STACK (33 MVA)	
Sample Condition	Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling done by	: Ashutosh Mohanty	
Test Started on	: 23.02.2024	Test Completed on	: 28.02.2024	

**4. Chemical Testing**  
**D. Atmospheric Pollution**


Sl. No.	Parameter	Unit	Standard as per CTO	Analysis Results
				ST-4
1	Temperature	<sup>0</sup> K	--	372
2	Velocity	m/sec	--	8.8
3	Particulate Matter as PM	mg/Nm <sup>3</sup>	100	42.5
4	Sulphur Dioxide as SO <sub>2</sub>	mg/Nm <sup>3</sup>	--	28.6
5	Oxides of Nitrogen as NO <sub>x</sub>	mg/Nm <sup>3</sup>	--	32.9
6	Carbon Monoxide as CO	mg/m <sup>3</sup>	--	0.077
7	Carbon dioxide as (CO <sub>2</sub> )	%	--	7.5
8	Mercury (as Hg)	mg/Nm <sup>3</sup>	--	0.042
9	Quantity of Gas flow	Nm <sup>3</sup> /hr	--	176501

**Remarks:** The above Sample test results are within the prescribed standard for the above mentioned parameters.


**TERMS AND CONDITION:-**

1. The Test result is relevant only to the item tested.
2. This report shall not be reproduced in full or part without written approval of Visiontek consultancy services (P) Ltd
3. The laboratory is not responsible for the authenticity of photocopied test report.
4. The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations.
5. The laboratory's responsibility under this report is limited to: proven wilful negligence.

\*\*\* End Report\*\*\*



Reviewed by



\*Approved by



## Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

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

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

### TEST REPORT

Test Report No: ENVLAB/23-24/TR-12567

Date: 04.01.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 22.12.2023
Sample Description	: Source Emission	Sample Received on	: 23.12.2023
Sample Condition	: Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling Procedure	: VCSPL/SOP/003, Dt. 01.08.2019
Test Started on	: 23.12.2023	Sampling Location	: ST-1: GCP STACK (33 MVA)
		Sampling done by	: Ashutosh Mohanty
		Test Completed on	: 27.12.2023

#### 1. Chemical Testing

##### A. Atmospheric Pollution

Sl. No.	Parameter	Unit	Standard as per CTO	Analysis Results
				ST-1
1	Temperature	<sup>o</sup> K	--	372
2	Velocity	m/sec	--	8.1
3	Particulate Matter as PM	mg/Nm <sup>3</sup>	--	41.8
4	Sulphur Dioxide as SO <sub>2</sub>	mg/Nm <sup>3</sup>	--	28.7
5	Oxides of Nitrogen as NO <sub>x</sub>	mg/Nm <sup>3</sup>	--	33.1
6	Carbon Monoxide as CO	mg/m <sup>3</sup>	--	0.079
7	Carbon dioxide as (CO <sub>2</sub> )	%	--	7.5
8	Mercury (as Hg)	mg/Nm <sup>3</sup>	--	0.041
9	Quantity of Gas flow	Nm <sup>3</sup> /hr	--	163120

Remarks: The above Sample test results are within the prescribed standard for the above mentioned parameters.

#### TERMS AND CONDITION:-

- The Test result is relevant only to the item tested.
- This report shall not be reproduced in full or part without written approval of Visiontek consultancy services.(P) Ltd
- The laboratory is not responsible for the authenticity of photocopied test report.
- The test item will not be retained for more than 15 days from the date of issue of test report except in case as required by applicable regulations.
- The laboratory's responsibility under this report is limited to; proven willful negligence.

\*\*\* End Report\*\*\*



**EMP Compliance Annexure 4**
**Coke Analysis Report (% Sulphur)**

Sulphur Analysis (Size 0-10)			
SAMPLE ID	DOR	TRUCK NO	%S
MS/40/18/24-25	01.05.2024	OD22J-0755	0.57
	01.05.2024	OD22G-9955	
MS/40/19/24-25	02.05.2024	OD22A-0759	0.58
	02.05.2024	OD22G-9955	
MS/40/20/24-25	03.05.2024	OR22F-0759	0.57
	03.05.2024	OD22G-9955	
MS/40/21/24-25	04.05.2024	OD04Q-2814	0.58
	04.05.2024	OD22G-9955	
MS/40/22/24-25	05.05.2024	OD22G-9955	0.57
	05.05.2024	OR22F-0759	
	05.05.2024	OD04Q-3404	
MS/40/23/24-25	06.05.2024	OR22B-7059	0.57
	06.05.2024	OD22G-9955	
MS/40/24/24-25	07.05.2024	OR22F-0759	0.59
	07.05.2024	OD22A-0759	
	07.05.2024	OD22G-9955	
	07.05.2024	OD22J-0755	
MS/40/25/24-25	09.05.2024	OD22J-0755	0.58
	09.05.2024	OD22G-9955	
	09.05.2024	OR22F-0759	
MS/40/26/24-25	10.05.2024	OD22J-0755	0.58
	10.05.2024	OD22G-9955	
	10.05.2024	OR22C-0759	
MS/40/27/24-25	11.05.2024	OD34C-3688	0.57
	11.05.2024	OD04Q-3404	
	11.05.2024	OR22B-7059	
	11.05.2024	OR22C-0759	
MS/40/28/24-25	12.05.2024	OD34C-3688	0.57
	12.05.2024	OD34K-5216	
	12.05.2024	OR22B-7059	
	12.05.2024	OD22G-9955	




Sulphur Analysis (Size 10-30)				
SAMPLE ID	TOTAL QTY IN MT	DOR	TRUCK NO	%S
MS/15/24-25	47.350	01.05.2024	OR22E-7059	0.59
		01.05.2024	OR22F-0759	
MS/16/24-25	74.620	02.05.2024	OR22F-0759	0.57
		02.05.2024	OD22Y-6655	
		02.05.2024	OD22J-0755	
MS/17/24-25	58.520	03.05.2024	OD22Y-6655	0.58
		03.05.2024	OD22X-1155	
MS/18/24-25	76.030	04.05.2024	OD22Y-6655	0.57
		04.05.2024	OR22F-0759	
		04.05.2024	OR22B-7059	
MS/19/24-25	50.330	05.05.2024	OD22Y-6655	0.58
		05.05.2024	OD22J-0755	
MS/20/24-25	44.330	06.05.2024	OR22C-0759	0.57
		06.05.2024	OD22J-0755	
MS/21/24-25	98.230	10.05.2024	OD34K-5216	0.59
		10.05.2024	OD34C-3688	
		10.05.2024	OD22A-0759	
		10.05.2024	OR22F-0759	
MS/22/24-25	66.850	11.05.2024	OD34K-5216	0.60
		11.05.2024	OD22J-0755	
		11.05.2024	OD22G-9955	

**EMP Compliance Annexure 5**
**PUC Certificate of Vehicle Running Inside Plant**

Form 59  
[See rules 115 (2)]

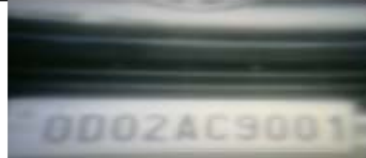
**Pollution Under Control Certificate**  
 Authorised By :  
 Government of Odisha

**Date** : 04/01/2024  
**Time** : 17:55:22 PM  
**Validity upto** : 03/07/2024



Certificate SL. No.	:	OR02200470016421
Registration No.	:	OD02AC9001
Date of Registration	:	29/Jun/2016
Month & Year of Manufacturing	:	May-2016
Valid Mobile Number	:	*****9999
Emission Norms	:	BHARAT STAGE III
Fuel	:	DIESEL
PUC Code	:	OR0220047
GSTIN	:	21CPAPN1237E1ZL
Fees	:	Rs.118.00
		(GST to be paid extra as applicable)
MIL observation	:	No

**Vehicle Photo with Registration plate**  
 60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	0.16

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator  
 60mm x 20 mm

**EMP Compliance Annexure 6**
**GCP (Pollution Control Equipment) Preventive Maintenance Schedule**

Maintenance Plan	Equipment	Maintenance Strategy	Maintenance item description	Scheduled start date	Completion date	Maint. Planner Group	Maintenance Plant	Maintenance Activity Type	Planned date	Functional Location
9223	EAF-RAF-1	FACOR	Pm of REVERSE AIR FAN-1	5/13/2024	5/13/2024	MEC	CCPL	PRM	5/11/2024	FACL-CCPL-GCP
9224	EAF-RAF-2	FACOR	Pm of REVERSE AIR FAN-2	5/13/2024	5/13/2024	MEC	CCPL	PRM	5/12/2024	FACL-CCPL-GCP
9225	GCP-MAIN-FAN-1	FACOR	Pm of GCP MAINFAN-1	5/13/2024	5/13/2024	MEC	CCPL	PRM	5/12/2024	FACL-CCPL-GCP
9226	GCP-MAIN-FAN-2	FACOR	Pm of GCP MAINFAN-2	5/13/2024	5/13/2024	MEC	CCPL	PRM	5/13/2024	FACL-CCPL-GCP
9227	GCP-MAIN-FAN-3	FACOR	Pm of GCP MAINFAN-3	5/14/2024	5/14/2024	MEC	CCPL	PRM	5/14/2024	FACL-CCPL-GCP
9228	GCP-MAIN-FAN-4	FACOR	PM of GCP MAINFAN-4	5/15/2024		MEC	CCPL	PRM	5/15/2024	FACL-CCPL-GCP
9223	EAF-RAF-1	FACOR	Pm of REVERSE AIR FAN-1	5/26/2024		MEC	CCPL	PRM	5/26/2024	FACL-CCPL-GCP
9224	EAF-RAF-2	FACOR	Pm of REVERSE AIR FAN-2	5/27/2024		MEC	CCPL	PRM	5/27/2024	FACL-CCPL-GCP



9225	GCP-MAIN-FAN-1	FACOR	Pm of GCP MAINFAN-1	5/27/2024		MEC	CCPL	PRM	5/27/2024	FACL-CCPL-GCP
10045	GCP-IDFM1	FACOR	PM OF GCP MAIN FAN MOTOR 1	5/28/2024		ELC	CCPL	PRM	5/28/2024	FACL-CCPL-GCP
10046	GCP-IDFM2	FACOR	PM OF GCP MAIN FAN MOTOR 2	5/28/2024		ELC	CCPL	PRM	5/28/2024	FACL-CCPL-GCP

**EMP Compliance Annexure 7**



**Dedusting Unit at Dryer Unit**



**Water Sprinkling on Internal Roads**

**EMP Compliance Annexure 8**



Concreted Internal Road



**Water Sprinkling System in Metal Recovery Plant to control dust generation.**



**EMP Compliance Annexure 9**



DG Set with Acoustic Enclosure



**EMP Compliance Annexure 10**



Use of Ear plugs by workers during ladle cleaning



## EMP Compliance Annexure 11

### Periodic Medical Examination (PME)

REGD. NO.- MOB. NO.		DATE OF EXAM. <u>11/3/24</u> VALIDITY UPTO <u>28/2/25</u>
<b>FORM NO. 31-A</b> HEALTH RECORD (PREScribed UNDER RULE 6Z-1) <b>VEDANTA FERRO ALLOYS CORPORATION LTD.</b> CHARGE CHROME PLANT, RANDIA <span style="float: right;">Almarolo</span>		
<b>REPORT OF MEDICAL EXAMINATION (PRE-EMPLOYMENT / PERIODICAL / OTHERS)</b>		
<ul style="list-style-type: none"> <li>• Name of the employee :</li> <li>• Employment no. :</li> <li>• Date of birth/age :</li> <li>• Date of employment :</li> <li>• Length in service :</li> <li>• Nature of job :</li> <li>• Identification marks :</li> <li>• General Survey :</li> </ul>	<div style="background-color: blue; height: 20px; width: 150px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <span>Sex : Male/Female</span> <span>31</span> </div> <p><u>28/07/1992</u></p> <p>Assistant manager,</p> <p>A black mole on</p>	
<div style="display: flex; justify-content: space-between;"> <div>Health :</div> <div>Good / Fair / Poor</div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Height -</div> <div><u>165</u> Cm.</div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Weight -</div> <div><u>78</u> Kg.</div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Blood group</div> <div><u>A-ve</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Eye vision</div> <div>Normal / Abnormal</div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Use of glass - Yes / No</div> <div><u>RE-616,</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Hearing</div> <div>Normal / Abnormal</div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Respiratory system &amp; chest measurement :</div> <div><u>LE-616.11</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Inspiration -</div> <div><u>84cm</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Expiration -</div> <div><u>82cm</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Respiratory Rate / min -</div> <div><u>18bh</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Remarks if any -</div> <div></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Cardiovascular system :</div> <div><u>Neen.</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Pulse rate -</div> <div><u>84bh</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Bp-</div> <div><u>120/80 mmHg</u></div> </div>		
<div style="display: flex; justify-content: space-between;"> <div>Heart sounds-</div> <div><u>M</u></div> </div>		

• Abdomen Tenderness : Yes/ No  
Liver : Normal / Enlarged  
Spleen : Normal / Enlarged


• Nervous system :  
History of fits : Yes / No  
Epilepsy : Yes / No  
Remarks on mental health : *NIL*

• Locomotor system : Normal / Abnormal  
• Skin condition : Normal / Abnormal  
Remarks on any skin disease noticed - *NIL*

• Hernias : Absent / Present  
• Hydrocele : Absent / Present  
• Present complain, if any  
• Summary of findings  
Heart disease  
Hypertension  
Diabetes  
T.B.  
Epilepsy  
Poisoning  
Dental  
Occupational disease, if any  
*NIL*

• Recommendation, if any  
For any further investigation

*- All Reports are WNL  
- He is Fit to resume work.*

  
Signature of the Employee

*Dr. Anu* 13/24  
Signature of the Medical Officer  
MEDICAL OFFICER  
VEDANTA FACOR

**EMP Compliance Annexure 12****Vedanta Water Policy****Water Policy**Document No: HSES/POI-03

At Vedanta we recognise the social, economic, environmental, and cultural value of water and the increasing global concern of water scarcity. Water is a key resource for all our operations - required for the health and wellbeing of employees and at every stage of an operation's life cycle, including closure. The dependency and impact on a shared resource creates material risk for our business, which requires effective management that balances the needs of many different users.

Vedanta will:

- comply with applicable national, regional and local regulations on water;
- respect that water is a shared resource between industry, communities and ecology and ensure that our operations do not negatively impact that shared balance;
- publicly report on the company's water performance using consistent industry metrics and recognized approaches;
- undertake periodic water-risk management that inform the company's water management strategies;
- avoid pollution of surface water, ground water and other water resources. We will apply a zero-discharge philosophy wherever possible and treat all wastewater to good international practice before discharging to the environment;
- ensure that water and waste-storage facilities are engineered and maintained to good international standards;
- understand our water footprint at all our projects and operations, and maintain a water-balance that minimises the amount of freshwater consumed;
- identify water conservation projects through reduction, recycling and reuse and monitor progress against water consumption reduction targets across our businesses;
- participate in local or regional water catchment planning activities to secure sustainable water resources for our operations and the activities of other users;
- determine baselines and develop ongoing monitoring of water quality;
- work with communities and communicate with all our stakeholders on the progress and performance of water conservation and management.

This policy is part of the Vedanta Sustainability Framework and each Vedanta business shall implement this policy and its related technical and performance standards. Business leaders will be held accountable for water-related performance and line managers are responsible for the full implementation of the related water standards. We will measure and report performance on a periodic basis to ensure on-going management of water resources including the sharing of good practices throughout the organization. The content and implementation of this policy will be reviewed periodically.

Date: 1<sup>st</sup> January 2020

Sensitivity: Internal (C2)



Technical Standard – Water Management



**Technical Standard – Water Management**

---

**Vedanta Resources Plc**

**Sustainability Governance System**

**Technical Standard  
Water Management**

Document: VED/CORP/SUST/TS 14  
Version v.1

Page 1 of 16

Sensitivity: Public (G4)



## Technical Standard – Water Management

<b>Standard Title:</b>	<b>Water Management</b>	<b>Date of Revision</b>	02/12/11
<b>Standard:</b>	VED/CORP/SUST/TS 14	<b>Revision:</b>	v.1

Document Issue and Revision History		
DATE	REVISION NUMBER	CHANGE SUMMARY
02/12/11	1	Initial issue.

<b>Authorised by:</b>	Tony Henshaw
<b>Signature</b>	
<b>Position:</b>	Chief Sustainability Officer

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Document: VED/CORP/SUST/TS 14  
Version v.1

Page 2 of 16

Sensitivity: Public (C4)



## Technical Standard – Water Management

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## Technical Standard – Water Management

### 1. INTRODUCTION

Vedanta recognises the social, economic and environmental value of water and the impacts that its operations and activities may have on water resources. Protecting water resources is a priority for Vedanta and it is integral to our commitment to sustainable development. In recognition of this commitment and in accordance with our Water Management Policy this Standard aims to facilitate the integration of water management into decision making processes for new and existing projects and to help ensure that all necessary measures are taken to avoid, minimize and in some cases compensate for the impacts of our projects. This Standard supports Vedanta's *Water Management Policy*.

The assessment and management of impacts of new projects shall be considered as part of the overarching environmental and social impact assessment and therefore this document should be read in conjunction with the *Conducting ESIA to International Standards* Technical Standard for such purposes. For existing projects, reference shall also be made to existing environmental management provisions adopted at a Company and site level.

### 2. SCOPE

This Technical Standard is mandatory and applies to all Vedanta subsidiaries and their operational or managed sites, including new acquisitions, corporate offices and research facilities, and to all new and existing employees and contractor employees. This Standard is applicable to the entire operation lifecycle (including exploration and planning, evaluation, operation and closure).

### 3. DEFINITIONS

Definitions of key terms used in this document are shown in the following table.

Term	Definition
Affected Communities	Local communities directly affected by the new or existing project.
CAO	The Office of the Compliance Advisor/Ombudsman, an independent post that reports directly to the President of the World Bank Group.
Cumulative Effects	Based on the IFC description, cumulative impacts are those that result from the incremental impact of the project when added to other existing, planned and reasonably predictable future projects and developments. Water-related effects include: cumulative quantity (over-abstraction) and cumulative quality (impairment of water bodies) impacts.
ICMM (International Council on Mining and Metals)	The International Council on Mining and Metals (ICMM) was established in 2001 and seeks to drive performance improvement through its members which comprise 20 mining and metals companies as well as 30 national and regional mining associations and global commodity associations.



## Technical Standard – Water Management

Term	Definition
WHO Drinking Water Guidelines	The revised Guidelines for Drinking Water Quality were published by the World Health Organisation (WHO) on 4 <sup>th</sup> July 2011 and are typically used in the absence of any local/national standards for drinking water quality. These guidelines establish the quality standards that should be achieved for water to be classified as drinking water, as well as broader water safety considerations.
IFC (International Finance Corporation)	Member of the World Bank that finances and provides advice to private sector ventures and projects in developing countries.
Lifecycle	The phases of a Vedanta mining project including exploration and planning, evaluation, operation and closure.
Operation(s)	A location or activity that is operated by a Vedanta Company and is part of the Vedanta Group. Locations could include mines, refineries, ports or transportation activities, wind farms, oil and gas development sites, offices including corporate head offices and research and development facilities.
Participatory Water Monitoring	Based on the CAO description, this is a collaborative process of collecting and analysing water data, and communicating the results, in an attempt to identify and solve problems as a partnership between the Vedanta site and its affected communities. It includes a variety of people in all stages of the monitoring process, and incorporates methods and indicators meaningful to the stakeholders concerned.
Stakeholders	Persons or groups that are directly or indirectly affected by a project as well as those that may have interests in a project and/or the ability to influence its outcome, either positively or negatively. This can refer to shareholders, lenders, employees, communities, industry, governments and interested third parties.
Vedanta Company	A subsidiary of Vedanta Group either fully or majority owned that has its own management structure (e.g. Hindustan Zinc Limited, Vedanta Aluminium Limited, Sterlite Industries limited, etc.)
Water Accounting	The systematic collation of the water balance information from each site within each Company to enable the Group Sustainability Committee to measure, record and report aspects of water resources management associated with its operations and activities.
Water Balance	A calculation of the total volume of water inputs (for direct and indirect uses) and outputs (i.e. wastewater) for each Vedanta site.





## Technical Standard – Water Management

### 4. PROGRAMME REQUIREMENTS

This technical standard has been prepared in order to protect water resources from the impacts that its operations and activities may have on them. It describes mechanisms for identifying, evaluating, managing and protecting water resources that may be impacted by an existing or proposed Vedanta activity or operation.

#### 4.1. General Requirements

- a) The requirements included in this Technical Standard shall be adhered to by all Vedanta Companies as applicable.
- b) Arrangements shall be created, implemented and maintained so that the requirements of applicable local, regional, national legislation are complied with.
- c) Arrangements shall also be implemented to ensure conformance to the requirements of the *IFC Performance Standards*.
- d) The key IFC provisions are summarised as follows:
  - *Performance Standard 1 – Assessment and Management of Social and Environmental Risks and Impacts* – The relevant objectives of this standard are to identify and assess social and environment impacts, both adverse and beneficial, in the project's area of influence; to avoid, or where avoidance is not possible, minimize, mitigate, or compensate for adverse impacts on workers, affected communities, and the environment; to ensure that affected communities are appropriately engaged on issues that could potentially affect them and to promote improved social and environment performance through the effective use of management systems. The key considerations in so far as they relate to this Technical Standard are: the need to undertake a risk and impact assessment; the need for a management programme of mitigation and performance improvement measures; community engagement; monitoring and reporting;
  - *Performance Standard 3 – Pollution Prevention and Abatement* – The relevant objective of this standard is to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. The key considerations in so far as they relate to this Technical Standard are: use of pollution prevention and control technologies and techniques during all stages of the project lifecycle; resource conservation; emergency preparedness and response and existing ambient conditions (of surface and groundwater resources), and





## Technical Standard – Water Management

- *Performance Standard 6 – Biodiversity Conservation and Sustainable Natural Resource Management* – The relevant objectives of this standard are to protect and conserve biodiversity and to promote sustainable management and use of natural resources through the adoption of practices that integrate conservation needs and development priorities. The key considerations in so far as they relate to this Technical Standard are: natural resources impact assessment; impact management / mitigation in areas of modified, natural and critical habitats; protection, promotion and enhancement of legally protected areas (all of which may comprise water-based habitats); and sustainable management and use of renewable natural resources.

### 4.2. Existing Projects and Operations

All existing Vedanta companies shall create, implement and maintain arrangements for sustainable water management at all locations including but not limited to offices, manufacturing sites, distribution infrastructure, mines, etc.

### 4.3. Water Resources Risk Screening Assessment

- a) All Vedanta Companies shall conduct a basic screening assessment to identify sensitive water resources and aquatic habitats and any known or suspected water resources constraints within and in proximity to each owned/managed operation and facility.
- b) Constraints that shall be considered include (but not limited to):
  - a naturally water stressed environment, with a high prevalence of droughts and water shortages;
  - the presence or planned development of other water intensive industrial and/or agricultural activities, in particular commercial agriculture, agro-processing facilities and power generation and supply;
  - any planned infrastructure in the river basin, such as hydropower schemes, river diversions etc;
  - a highly polluted water environment, e.g. where there are significant and poorly regulated industrial or agricultural activities upstream of the operation; or
  - groundwater resources that may be at risk from induced saline intrusion or other sources of contamination if pumping activities occur.
- c) This screening assessment shall be achieved using for example the World Business Council for Sustainable Development Water Tool (or other internationally recognised proprietary) database as well as by referring to other available sources of information as appropriate such as government management strategies or action plans, media and the internet to determine the need and priority to further examine water constraints, biodiversity attributes in so far as they relate to water and aquatic ecosystem services issues.



## Technical Standard – Water Management

- d) The outcome of this exercise shall be a prioritised list of all sites on the basis of risk. Sites situated in an area of high water resources value and/or with vulnerable aquatic ecosystem services, and sites located outside an area of high water resources value but which impact such an area will be classified as high risk. Medium and low risk sites shall be classified on the basis of distance from such areas, and extent of impact.

### 4.3.1. Water Resources Management Plan

- a) On the basis of the assigned priority rating of each site a Water Resources Management Plan (WRMP) shall be prepared and implemented to eliminate, minimize, mitigate and manage impacts on water resources and shall be commensurate with the level of risk.
- b) For operations and facilities that have been identified as high risk, the collection of further information shall be undertaken in order to inform the development of the WRMP.
- c) For high risk operations and facilities, the WRMP shall include provision for the following issues. For medium and low risk facilities the following issues may be included as appropriate on the basis of an assessment of local needs and requirements:
- Withdrawals from sensitive water bodies;
  - Operational activities and arrangements for preventing the discharge of harmful substances into the soil and groundwater;
  - Security of supply and forecasted changes in demand;
  - Planning and preparation for potential climate change impacts that could disrupt or change the availability of water resources;
  - Societal values and conflicting uses in the context of ecosystem services;
  - Affected communities' ownership and access rights to water resources;
  - Impacts on landscape / ecological processes as a result of major long term changes in water use arising from site operations and activities (e.g. impact on habitat function of water catchments due to reduced flow);
  - Transboundary impacts such as water pollution of international surface waters;
  - Cumulative effects and the impacts of mining and minerals processing on operational, local and regional water systems, and
  - Strategies that contribute to the improvement of ambient conditions when the project has the potential to constitute a significant source of emissions in an already degraded area.
- d) The WRMP shall detail the arrangements for the periodic internal and external measurement and reporting (as required) of the impact management activities.





## Technical Standard – Water Management

- e) The WRMP shall be integrated into the Company, Operation or Project Social and Environmental Management Plan.

### 4.3.2. Legal and Other Requirements

- a) All Vedanta Companies shall identify all relevant local, regional and national legislative requirements on water management and biodiversity conservation that are relevant to each of its owned and/or managed operations and facilities.
- b) Arrangements shall be established to ensure compliance with all such requirements, and to surpass them where practicable.
- c) All applicable international conventions shall be identified and complied with in all jurisdictions in which it operates.
- d) Vedanta shall consider opportunities to protect and enhance water resources and aquatic environments in modified and natural habitats beyond the scope of legal compliance and the requirements of international standards.

### 4.3.3. Provision of Drinking Water and Sanitation

- a) All Vedanta Companies shall ensure that all sites and facilities (including contractor camps; refer to the *Supplier and Contractor Management* Technical Standard TS06) are supplied with a secure supply of drinking water and with adequate sanitation facilities.
- b) Where drinking water is provided by the Company, it shall be treated to conform with WHO and / or national standards, whichever are the more stringent.
- c) In the absence of a municipal sewerage connection alternative infrastructure for sanitary waste disposal shall be established such as piped connection to septic tanks and provisions for appropriate disposal of waste.
- d) Documentation shall be maintained that details the sources of the site's water supply, the drinking water and sanitation network, the quantity and quality of water abstracted for use and the quality of the wastewater discharged by the site.
- e) Arrangements shall be established to maintain the water and sanitation infrastructure.

### 4.3.4. Water Balance

- a) A water balance shall be calculated and maintained by each Company location. This shall consider the following:
  - Identification of the total volume of water withdrawn from any water source (surface waters, groundwater, rainwater, waste water from another company, municipal water);
  - Water withdrawn directly by the Company or through intermediaries such as water utilities;





## Technical Standard – Water Management

- Volumes used for each different purpose (e.g. drinking water, sanitation, process);
  - Volume of returns to the environment through leakage, treated wastewater discharges, evaporation etc, and
  - Volume of reused / recycled water and as a percentage of the total water used or withdrawn.
- b) The water footprint shall be reviewed on an annual basis and updated as required and reported to the Company head office.
  - c) Each Company shall collate the annual water balances from all its facilities and use these to determine Company-level performance goals and water resources targets for the forthcoming year.
  - d) The water balances collated by each Company or Operation shall be submitted to the Group Sustainability Committee for the purposes of the annual Group management review, performance reporting and continual improvement in accordance with the *Sustainability Data Management* Technical Standard TS21 and the *Management Review and Continual Performance* Management Standard MS14.

### 4.3.5. Water Use Reduction

- a) As part of the annual sustainability performance improvement review, an annual assessment shall be conducted to identify opportunities for minimising the amount of water consumed including direct reduction of freshwater demand by using alternative supplies (such as recycled process water).
- b) Identify and act upon opportunities to upgrade the design of site infrastructure to enhance water conservation measures (such as replacement of old pipe work to reduce leakage) as part of the planned preventative maintenance programme.
- c) Identify and act upon opportunities to assist the local communities to better manage their water consumption (such as through maintenance of storage and distribution infrastructure) such that additional water becomes available for use by the site (referred to as water consumption offsetting).
- d) All Vedanta companies shall identify and implement measures for recycling and reuse of wastewater such as recirculation of process water for cooling or rain water harvesting.
- e) The findings of the assessment shall be incorporated as appropriate into the proposed improvement plan for the forthcoming reporting year in the form of objectives and targets.
- f) For sites that extract water (ground and surface water), measures shall be implemented where possible to promote groundwater recharge in order to counter the impact of water removal and augment supply (referred to as rainwater harvesting).

### 4.3.6. Wastewater Treatment and Discharge



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- a) All process waste water shall be treated to international best practice standards through the application of best available techniques (BAT) before being discharged to the environment.
- b) Surface water runoff shall be controlled so as to prevent soil erosion, protect water bodies and aquatic biodiversity from impact due to sediment loading and pollutants, and to prevent localised flooding.
- c) Sanitary waste shall be treated in such a manner that it does not present a risk to the environment or to human health.
- d) Prior to discharging any water to the environment, the quality of the water shall be verified to ensure that it meets any applicable legal, corporate and permitting obligations.
- e) A zero discharge philosophy shall be applied at all sites.

### 4.3.7. Emergency Preparedness and Response

- a) Each Vedanta operation and facility shall, on the basis of an assessment of risk, include in its emergency response plan a section designed to prevent, mitigate and control the unplanned or uncontrolled release of waste water into the natural environment.
- b) Each Vedanta operation and facility shall establish the necessary arrangements for ensuring adequate and appropriate training, resources, responsibilities, communication, procedures and other aspects are available to effectively respond to emergency situations.

### 4.3.8. Participatory Monitoring

- a) Arrangements shall be established to facilitate participatory water monitoring with affected communities in order to constructively monitor and manage any conflicting water use issues that may arise during the project lifecycle. Reference shall be made to relevant guidance provided by the CAO.
- b) Arrangements shall be established for the regular reporting to stakeholders on the Company's management of water resources and the progress towards water conservation achievements.
- c) Vedanta companies shall participate in local or regional water catchment planning activities to secure sustainable water resources for Vedanta operations and the activities of other users outside of the organisation.
- d) All engagement with affected communities shall be conducted in line with the *Stakeholder Engagement* Technical Standard TS05 and issues shall be managed in accordance with the *Grievance Mechanisms* Technical Standard TS04.

### 4.3.9. Measuring and Monitoring

- a) Using the GRI Mining and Metals Sector Supplement each Vedanta Company shall monitor performance in managing water resources issues.





## Technical Standard – Water Management

- b) Each Vedanta Company shall develop performance indicators on the basis of corporate and legal requirements and using the following GRI Mining and Metals Performance Indicators:
  - EN8 - Total water withdrawal by source;
  - EN9 - Water sources significantly affected by withdrawal of water, and
  - EN10 - Percentage and total volume of water recycled and reused.
- c) On the basis of the risk classification, each operation or facility shall also establish arrangements for monitoring its performance against the relevant indicators established by the Company.
- d) Every facility shall regularly monitor water flows and compare these against performance targets to manage abstraction and consumption and to identify opportunities to reduce it.
- e) Every operation shall establish and monitor performance against targets for water consumption reduction and for improving the quality of produced waste water. Targets shall be set in accordance with the *Data Management, Performance Monitoring and Reporting Management Standard MS 10*.

### 4.3.10. Knowledge and Awareness

- a) Arrangements shall be implemented to support water resources, aquatic environments, ecosystem services and conservation research efforts carried out by local, regional and national research groups in order to further knowledge and understanding of such attributes in Vedanta's areas of operation.
- b) Mechanisms shall be created and implemented to provide information and raise awareness among employees, customers and suppliers and other stakeholders to enhance knowledge and understanding of water resources, aquatic environments and conservation issues.

## 4.4. New Projects

### 4.4.1. Impact Assessment

- a) For any new project that is planned, an initial assessment shall be undertaken to determine if it will be necessary to undertake a formal international standard Environmental and Social Impact Assessment (ESIA). Reference shall be made to the provisions of local legislative requirements and to the IFC Performance Standard PS1 on the Assessment and Management of Social and Environmental Risks and Impacts.
- b) For projects that require an ESIA the *Conducting ESIA's to International Standards* Technical Standard TS08 shall be followed.
- c) For projects that do not fall within the scope of an ESIA, a water resources risk screening assessment shall be undertaken as described in 4.3 and the potential impacts subsequently managed as required in accordance with the provisions of a water resources management plan as described in Section 4.3.1.





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### 4.4.2. Impact Assessment

- a) The scope of the ESIA will depend on the nature and scale of the project and sensitivities of water resources attributes in the project area but in any case shall include:
  - Desktop study and consultations;
  - Baseline water resources survey;
  - Assessment of ecosystem services;
  - Impact and dependency assessment;
  - Reporting, and
  - A Management Plan.
- b) For all new projects water resource attributes and ecosystem services in the proposed area shall be identified and potential project impacts and dependencies assessed.
- c) Vedanta shall ensure that the Baseline Water Resources Survey establishes a core set of assessment criteria (indicators) which will form the basis of impact analysis and the definition of mitigation and management measures.

### 4.4.3. Water Resources Management Plan

- a) A Water Resources Management Plan (WRMP) shall be prepared that details the actions that are identified during the impact assessment to prevent, minimise and mitigate impact to vulnerable water resources during the project lifecycle.
- b) The WRMP shall include as appropriate those considerations detailed in Section 4.3.1 (for water resources management associated with existing projects) as well as other considerations that arise out of the impact assessment and mitigation planning for the new project.
- c) The WRMP shall also include all items as necessary to ensure conformance with Vedanta's Water Management Policy.
- d) The WRMP shall be integrated into the Social and Environmental Management Plan described in the *Conducting ESIs to International Standards* Technical Standard TS08.

## 5. ROLES AND RESPONSIBILITIES

Vedanta Resources, subsidiaries, businesses, operations and sites shall ensure that roles and responsibilities for implementing and complying with this Standard are allocated. Key responsibilities shall be included in job descriptions, procedures and/or other appropriate documentation.



## Technical Standard – Water Management

### 6. COMPLIANCE AND PERFORMANCE

Each Vedanta operation shall ensure they comply with the requirements of this standard. Performance against meeting the requirements of this Standard shall be assessed periodically, documented and, where required, reported to Vedanta Group. The assessment of performance shall include setting and reporting on key performance indicators (KPIs) where these have been established at Vedanta Group, Company or local level. The evaluation of performance shall include, as a minimum, confirmation that:

- All existing projects have arrangements in place to ensure safe drinking water and sanitation services are provided at all sites and facilities.
- A water balance is prepared annually by each site and is reported to the Company Head Office.
- A water account is prepared annually by each Company and reported to the Group Sustainability Committee to enable it to fulfil its duties for data reporting and continual improvement.
- Clear, transparent and formal arrangements are implemented and followed for participatory water monitoring and evidence is available to document consultations with affected communities and implementation of actions to address issues and concerns as part of this process.
- Evidence is available to demonstrate the actions taken to reduce and monitor sustainable water management initiatives regarding water consumption reduction, water reuse and recycling, water treatment, and minimum or zero discharges.
- Regular monitoring of company-supplied drinking water and of waste water discharges is conducted to ensure that local/national or international standards are complied with as appropriate, and that any non-conformances are managed appropriately.
- A water resources impact assessment is incorporated into the ESIA conducted for all new projects.

### 7. SUPPORTING INFORMATION

Reference	Description
ICMM (International Council of Mining and Metals)	The ICMM has recently produced and published a good practice guidance document 'Indigenous Peoples and Mining' which whilst it is written for indigenous peoples and therefore may not be relevant to all projects, contains useful guidance and references to cultural heritage. The ICMM has also produced many other best practice documents on a range of health,





## Technical Standard – Water Management

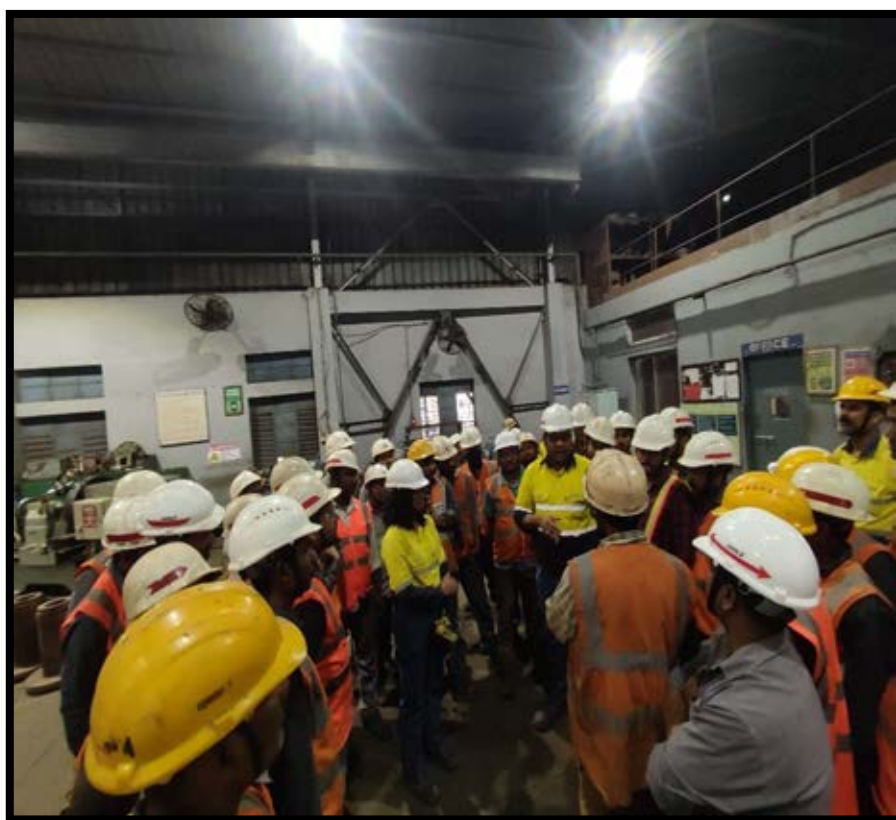
Reference	Description
	safety, environment and community issues relating to mining. <a href="http://www.icmm.com/library">http://www.icmm.com/library</a>
Global Reporting Initiative (GRI)	The Global Reporting Initiative (GRI) is a network-based organization that produced an internationally applicable sustainability reporting and disclosure framework. The GRI periodically updates the framework and also provides sector-specific guidance on its application to environmental, social and governance performance. <a href="http://www.globalreporting.org/Home">http://www.globalreporting.org/Home</a>
IFC Performance Standards Guidance Notes	Provides detailed guidance for adopting and implementing the requirements of the different Performance Standards. <a href="http://www.ifc.org/ifcext/sustainability.nsf/Content/PerformanceStandards">http://www.ifc.org/ifcext/sustainability.nsf/Content/PerformanceStandards</a>
The Office of the Compliance Advisor/Ombudsman (CAO)	An independent post that reports directly to the President of the World Bank Group. The CAO reviews complaints from communities affected by development projects undertaken by the private sector lending and insurance members of the World Bank Group, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). The CAO also offers advice and guidance to IFC and MIGA, and to the World Bank Group President, about improving the social and environmental outcomes of IFC and MIGA projects. The CAO has issued an advisory note on preventing and managing water conflict through participatory water monitoring (see Section 9 below for reference).
World Business Council for Sustainable Development (WBCSD) Water Tool	The WBCSD has created a tool which is freely available online to enable companies and organisations to map their water use and assess risks relative to their global operations and supply chains. <a href="http://www.wbcd.org/work-program/sector-projects/water/global-water-tool.aspx">http://www.wbcd.org/work-program/sector-projects/water/global-water-tool.aspx</a>
World Health Organisation (WHO)	WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. <a href="http://www.who.int/en/">http://www.who.int/en/</a>



**EMP Compliance Annexure 13**



Awareness session on Water Conservation



Onsite Training on Water saving practices



Awareness session on World Water Day





## EMP Compliance Annexure 14

Borewells	Location of Bore-wells with GPS coordinate	Type of Meter
Borewell 2	Near Weigh Bridge, Lat: 21.068227, Log: 86.45854	Digital
Borewell 3	Near Pump House, Lat: 21.066416, Log: 86.459278	Digital
Borewell 4	Slag Yard, Lat: 21.064802, Log: 86.459882	Digital
Borewell 5	Near BW4 Slag Yard, Lat: 21.063202, Log: 86.460614	Digital
Borewell 6	Near Metal Handling Yard, Lat: 21.064124, Log: 86.457372	Digital
Borewell 7	Near FPL Canteen, Lat: 21.064926, Log: 86.456023	Digital

The photographs of the borewells digital flowmeter installed at CCP are shared below.





**EMP Compliance Annexure 14**

Washroom facility at site



## EMP Compliance Annexure 15

### Greenbelt Details:

PP is currently having 34.84% of green belt coverage as per Greenbelt assessment by expert agency. PP is continuously working to achieve the tree density to 2500/Ha by using the existing vacant land and replacement of damaged plants.

Details of plantation is provided below.

Total land coverage by the project : 86.163 HA

Green Belt developed area : 28.99 HA

### **Plantation Details-**

Year of plantation	Species planted	Spacing	Height attained (As on Date)	Total area covered in Ha	Area still available in Ha
2023-24	5806	2.5 m	0.7 m	2.1	2.5
2022-23	7070	2.5 m	2.0 m	2.4	4.6
2021-22	1550	2.5 m	3.2 m	0.5	7.0

Survival of plantation	:	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
-Total plantations (No.)	-	1550	7070	6675
-Survival (No.)	-	1318	5727	5006
-Survival	-	85%	81%	75%

Local Name	Botanical Name	Family
<b>Trees</b>		
Nimba	<i>Azadiracta india</i>	Meliaceae
Radhachura	<i>Peltophurum ferrugineum</i>	Caesalpiniaceae
Karanja	<i>Pongamia pinnata</i>	Fabaceae
Acacia	<i>Acacia auriculiformis</i>	Mimosaceae
Debadaru	<i>Polyalthia longifolia</i>	Annonaceae
<b>Shrubs</b>		
Kadali	<i>Musa paradisiaca</i>	Musaceae
Pedipedika	<i>Abutilon persicum</i>	Malvaceae
Dalimba	<i>Punica granatum</i>	Puniaceae

## EMP Compliance Annexure 16

**Details of Annual Solid Waste Generated from M/S FACOR from the period 2021-22 to 2023-24.**

Year	Name of the Industries	Solid Waste	Generated Quantity (MT)	Utilized Quantity (MT)	Disposal Practices
2021-22	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	75378	75378	Used for land filling low lying areas & road making inside and outside plant premises
2022-23	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	65811.66	65811.66	Used for land filling low lying areas & road making inside and outside plant premises
2023-24	M/S Ferro Alloys Corporation Ltd. (FACOR)	Slag	82745.71	82745.71	Used for land filling low lying areas & road making inside and outside plant premises



**EMP Compliance Annexure 17**



Drainage System to Collection Surface Runoff



Surface Runoff Treatment Plant

## EMP Compliance Annexure 18

### Air Quality Reports



## Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

### TEST REPORT

Test Report No: ENVLAB/24-25/TR-00575

Date: 05.04.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 28.03.2024
		Sample Received on	: 29.03.2024
Sample Description	: Ambient Air	Sampling Procedure	: VCSPL/F-SOP/001, Dt. 04.09.2021
		Sampling Location	: R & C LABORATORY
Environment Condition during Sampling	: Atmospheric Temp.: 29 – 33°C Barometric Pressure : 755 mm of Hg	Instrument used for Sampling	: RDS (APM 460 BL), FPS (APM 550), VOC Sampler
Sample Condition	: Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling done by	: Ashutosh Mohanty
Test Started on	: 29.03.2024	Test Completed on	: 04.04.2024

#### 4. Chemical Testing

##### D. Atmospheric Pollution

Sl. No	Parameters	Unit	Test Method	National Ambient Air Quality Standard, CPCB, 18 <sup>th</sup> Nov. 2009	Analysis Result
1	Particulate matter as PM <sub>10</sub>	(µg/m <sup>3</sup> )	IS 5182 : Part 23: 2006, RA 2017	100	61.4
2	Particulate matter as PM <sub>2.5</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 24):2019	60	31.2
3	Sulphur Oxides as SO <sub>2</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 2): 2001, RA 2017	80	23.1
4	Nitrogen Oxides as NOx	(µg/m <sup>3</sup> )	IS 5182 (Part 6): 2006, RA 2017	80	24.9
5	Carbon monoxide as CO	(mg/m <sup>3</sup> )	IS 5182(Part 10):2019	2	0.070
6	Ozone as O <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part-09):2019	180	6.9
7	Ammonia as NH <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 25): 2018	400	<20
8	Lead as Pb	(µg/m <sup>3</sup> )	IS 5182(Part -22):2019	1	<0.006
9	Nickel as Ni	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	20	<3.1
10	Arsenic as As	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	6	<0.16
11	Benzene as C <sub>6</sub> H <sub>6</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 11):2006	5	<4
12	Benzo-a-pyrine as BaP	(ng/m <sup>3</sup> )	IS 5182 (Part 12):2017	1	<0.5

**BDL Values:** SO<sub>2</sub>< 4 µg/m<sup>3</sup>, NO<sub>x</sub>< 9 µg/m<sup>3</sup>, O<sub>3</sub><5 µg/m<sup>3</sup>, NH<sub>3</sub><20 µg/m<sup>3</sup>, Ni<3.1 ng/m<sup>3</sup>, As <0.16 ng/m<sup>3</sup>, C<sub>6</sub>H<sub>6</sub><4.0 µg/m<sup>3</sup>, BaP<0.5 ng/m<sup>3</sup>, Pb<0.006 µg/m<sup>3</sup>, CO<0.1 mg/m<sup>3</sup>

**Remarks:** The above Sample test results are within the prescribed standard for the above mentioned parameters.

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M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

#### Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

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Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00574

Date: 05.04.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 28.03.2024
Sample Description	: Ambient Air	Sample Received on	: 29.03.2024
Environment Condition during Sampling	: Atmospheric Temp.: 29 – 33°C Barometric Pressure : 755 mm of Hg	Sampling Procedure	: VCSPL/F-SOP/001, Dt. 04.09.2021
Sample Condition	: Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling Location	: MRSS
Test Started on	: 29.03.2024	Instrument used for Sampling	: RDS (APM 460 BL), FPS (APM 550), VOC Sampler
		Sampling done by	: Ashutosh Mohanty
		Test Completed on	: 04.04.2024

### 3. Chemical Testing

#### C. Atmospheric Pollution

Sl. No	Parameters	Unit	Test Method	National Ambient Air Quality Standard, CPCB, 18 <sup>th</sup> Nov. 2009	Analysis Result
1	Particulate matter as PM <sub>10</sub>	(µg/m <sup>3</sup> )	IS 5182 : Part 23: 2006, RA 2017	100	67.7
2	Particulate matter as PM <sub>2.5</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 24):2019	60	34.2
3	Sulphur Oxides as SO <sub>2</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 2): 2001, RA 2017	80	14.8
4	Nitrogen Oxides as NO <sub>x</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 6): 2006, RA 2017	80	20.6
5	Carbon monoxide as CO	(mg/m <sup>3</sup> )	IS 5182(Part 10):2019	2	0.081
6	Ozone as O <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part-09):2019	180	6.6
7	Ammonia as NH <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 25): 2018	400	<20
8	Lead as Pb	(µg/m <sup>3</sup> )	IS 5182(Part -22):2019	1	<0.006
9	Nickel as Ni	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	20	<3.1
10	Arsenic as As	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	6	<0.16
11	Benzene as C <sub>6</sub> H <sub>6</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 11):2006	5	<4
12	Benzo-a-pyrene as BaP	(ng/m <sup>3</sup> )	IS 5182 (Part 12):2017	1	<0.5
BDL Values: SO <sub>2</sub> < 4 µg/m <sup>3</sup> , NO <sub>x</sub> < 9 µg/m <sup>3</sup> , O <sub>3</sub> <5 µg/m <sup>3</sup> , NH <sub>3</sub> <20 µg/m <sup>3</sup> , Ni<3.1 ng/m <sup>3</sup> , As <0.16 ng/m <sup>3</sup> , C <sub>6</sub> H <sub>6</sub> <4.0 µg/m <sup>3</sup> , BaP<0.5 ng/m <sup>3</sup> , Pb<0.006 µg/m <sup>3</sup> , CO<0.1 mg/m <sup>3</sup>					
Remarks: The above Sample test results are within the prescribed standard for the above mentioned parameters.					

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&  
Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00573

Date: 05.04.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 28.03.2024
		Sample Received on	: 29.03.2024
Sample Description	: Ambient Air	Sampling Procedure	: VCSPL/F-SOP/001, Dt. 04.09.2021
		Sampling Location	: MRP
Environment Condition during Sampling	: Atmospheric Temp.: 29 – 33°C Barometric Pressure : 755 mm of Hg	Instrument used for Sampling	: RDS (APM 460 BL), FPS (APM 550), VOC Sampler
Sample Condition	: Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling done by	: Ashutosh Mohanty
Test Started on	: 29.03.2024	Test Completed on	: 04.04.2024

### 2. Chemical Testing

#### B. Atmospheric Pollution

Sl. No	Parameters	Unit	Test Method	National Ambient Air Quality Standard, CPCB, 18 <sup>th</sup> Nov. 2009	Analysis Result
1	Particulate matter as PM <sub>10</sub>	(µg/m <sup>3</sup> )	IS 5182 : Part 23: 2006, RA 2017	100	60.7
2	Particulate matter as PM <sub>2.5</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 24):2019	60	30.5
3	Sulphur Oxides as SO <sub>2</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 2): 2001, RA 2017	80	14.1
4	Nitrogen Oxides as NO <sub>x</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 6): 2006, RA 2017	80	19.8
5	Carbon monoxide as CO	(mg/m <sup>3</sup> )	IS 5182(Part 10):2019	2	0.11
6	Ozone as O <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part-09):2019	180	7.1
7	Ammonia as NH <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 25): 2018	400	<20
8	Lead as Pb	(µg/m <sup>3</sup> )	IS 5182(Part -22):2019	1	<0.006
9	Nickel as Ni	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	20	<3.1
10	Arsenic as As	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	6	<0.16
11	Benzene as C <sub>6</sub> H <sub>6</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 11):2006	5	<4
12	Benzo-a-pyrene as BaP	(ng/m <sup>3</sup> )	IS 5182 (Part 12):2017	1	<0.5

**BDL Values:** SO<sub>2</sub>< 4 µg/m<sup>3</sup>, NO<sub>x</sub>< 9 µg/m<sup>3</sup>, O<sub>3</sub><5 µg/m<sup>3</sup>, NH<sub>3</sub><20 µg/m<sup>3</sup>, Ni<3.1 ng/m<sup>3</sup>, As <0.16 ng/m<sup>3</sup>, C<sub>6</sub>H<sub>6</sub><4.0 µg/m<sup>3</sup>, BaP<0.5 ng/m<sup>3</sup>, Pb<0.006 µg/m<sup>3</sup>, CO<0.1 mg/m<sup>3</sup>

**Remarks:** The above Sample test results are within the prescribed standard for the above mentioned parameters.

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Microbiology Lab

## TEST REPORT

Test Report No: ENVLAB/24-25/TR-00572

Date: 05.04.2024

Name of the Industry	: Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak	Date of Sampling	: 28.03.2024
Sample Description	: Ambient Air	Sample Received on	: 29.03.2024
Environment Condition during Sampling	: Atmospheric Temp.: 29 – 33°C Barometric Pressure : 755 mm of Hg	Sampling Procedure	: VCSPL/F-SOP/001, Dt. 04.09.2021
Sample Condition	: Air Tight Sealed and gaseous Sample Solution Refrigerated	Sampling Location	: AUTO GARAGE
Test Started on	: 29.03.2024	Instrument used for Sampling	: RDS (APM 460 BL), FPS (APM 550), VOC Sampler
		Sampling done by	: Ashutosh Mohanty
		Test Completed on	: 04.04.2024

### 1. Chemical Testing

#### A. Atmospheric Pollution

Sl. No	Parameters	Unit	Test Method	National Ambient Air Quality Standard, CPCB, 18 <sup>th</sup> Nov. 2009	Analysis Result
1	Particulate matter as PM <sub>10</sub>	(µg/m <sup>3</sup> )	IS 5182 : Part 23: 2006, RA 2017	100	55.4
2	Particulate matter as PM <sub>2.5</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 24):2019	60	28.2
3	Sulphur Oxides as SO <sub>2</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 2): 2001, RA 2017	80	14.2
4	Nitrogen Oxides as NO <sub>x</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 6): 2006, RA 2017	80	18.8
5	Carbon monoxide as CO	(mg/m <sup>3</sup> )	IS 5182(Part 10):2019	2	0.75
6	Ozone as O <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part-09):2019	180	6.5
7	Ammonia as NH <sub>3</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 25): 2018	400	<20
8	Lead as Pb	(µg/m <sup>3</sup> )	IS 5182(Part -22):2019	1	<0.006
9	Nickel as Ni	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	20	<3.1
10	Arsenic as As	(ng/m <sup>3</sup> )	IS 5182(Part -22):2019	6	<0.16
11	Benzene as C <sub>6</sub> H <sub>6</sub>	(µg/m <sup>3</sup> )	IS 5182 (Part 11):2006	5	<4
12	Benzo-a-pyrene as BaP	(ng/m <sup>3</sup> )	IS 5182 (Part 12):2017	1	<0.5
BDL Values: SO <sub>2</sub> < 4 µg/m <sup>3</sup> , NO <sub>x</sub> < 9 µg/m <sup>3</sup> , O <sub>3</sub> <5 µg/m <sup>3</sup> , NH <sub>3</sub> <20 µg/m <sup>3</sup> , Ni<3.1 ng/m <sup>3</sup> , As <0.16 ng/m <sup>3</sup> , C <sub>6</sub> H <sub>6</sub> <4.0 µg/m <sup>3</sup> , BaP<0.5 ng/m <sup>3</sup> , Pb<0.006 µg/m <sup>3</sup> , CO<0.1 mg/m <sup>3</sup>					
Remarks: The above Sample test results are within the prescribed standard for the above mentioned parameters.					

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## Water Quality Reports



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• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Test Report No: ENVLAB/24-25/TR-00576

Date: 05.04.2024

### GROUND WATER QUALITY ANALYSIS REPORT FOR MAR-24

Name & Address of the Customer	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak
Sample Description	:	Drinking Water
	Date of Sampling	: 28.03.2024
	Sample Received on	: 29.03.2024
	Sampling Procedure	: APHA 1060 B
Identification by Customer	:	DW-1
	Sampling Location	: GW-1: Borewell no-2
Sample Condition	:	Ice Preserved
Test Started on	:	29.03.2024
	Test Completed on	: 05.04.2024

Sl. No.	Parameter	Unit	TEST METHOD	Standard as per IS -10500:2012 Amended on 2015 & 2018	Analysis Result
				Permissible Limit	
Physical Parameter					
1	Colour	Hazen,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2120 B, C	5	<5
2	Odour	--	APHA 23 <sup>rd</sup> Ed,2017 :2120 B	Agreeable	Agreeable
3	Taste	--	APHA 23 <sup>rd</sup> Ed,2017 : 2160 C	Agreeable	Agreeable
4	Turbidity	NTU,Max	APHA 2130 B	1	0.9
5	pH at 25°C	--	APHA 23 <sup>rd</sup> Ed,2017 : 4500H <sup>+</sup> B	6.5-8.5	7.5
6	Dissolved Solids	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2540 C	500	416
CHEMICAL PARAMETER					
1	Total Hardness (as CaCO <sub>3</sub> )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2340 C	200	187
2	Iron (as Fe)	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 3111, B	1.0	0.38
3	Chloride (as Cl <sup>-</sup> )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 4500Cl <sup>-</sup> B	250	25.0
4	Residual, free Chlorine	mg/l,Min	APHA 4500 Cl <sup>-</sup> B	0.2	ND
5	Calcium (as Ca <sup>+</sup> )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 3500Ca B	75	32.8
6	Magnesium (as Mg)	mg/l,Max	APHA 3500 Mg B	30	25.5
7	Copper (as Cu)	mg/l,Max	APHA 3111 B,C	0.05	BDL
8	Manganese (as Mn)	mg/l,Max	APHA 3500Mn B	0.1	<0.05
9	Sulphate (as SO <sub>4</sub> )	mg/l,Max	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E	200	6.3
10	Nitrate (as NO <sub>3</sub> )	mg/l,Max	APHA 4500 NO <sub>3</sub> <sup>-</sup> E	45	BDL
11	Fluoride (as F)	mg/l,Max	APHA 4500 F,C	1.0	BDL
12	Phenolic Compounds(as C <sub>6</sub> H <sub>5</sub> OH)	mg/l,Max	APHA 5530 B,D	0.001	BDL
13	Anionic Detergents (as MBAS)	mg/l,Max	APHA 5540 C	0.2	BDL
14	Chromium (as Cr <sup>+6</sup> )	mg/l,Max	APHA 3500Cr B	0.05	BDL
15	Mineral Oil	mg/l,Max	APHA 5520 B	0.5	BDL

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16	Alkalinity	mg/L,Max	APHA 2320 B	200	110
17	Aluminium as( Al)	mg/L,Max	APHA 3500Al B	0.03	BDL
18	Boron (as B)	mg/L,Max	APHA 4500 B.B	0.5	BDL
19	Ammonia (as total ammonia-N)	mg/L,Max	APHA 23 <sup>nd</sup> Ed.2017 4500	0.5	BDL
20	Barium (as Ba)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.7	BDL
21	Silver (as Ag)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.1	BDL
22	Polyaromatic hydrocarbons (PAH)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017 :6440 B	0.0001	BDL
23	Total Chromium (as Cr)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.05	0.05
24	Zinc (as Zn)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	5	1.33
25	Selenium (as Se)	mg/L,Max	APHA 23 <sup>rd</sup> Ed.2017: 3500 Se C	0.01	BDL
<b>PESTICIDES</b>					
1	Endosulfan à	µg/L,Max	APHA 23rd edition: 6630 C	0.4	BDL
2	Endosulfan ß	µg/L,Max	APHA 23rd edition: 6630 C	0.4	BDL
3	Endosulfan sulphate	µg/L,Max	APHA 23rd edition: 6630 C	0.4	BDL
4	Alachlor	µg/L, Max	APHA 23rd edition: 6630 C	20	BDL
5	Atrazine	µg/L, Max	APHA 23rd edition: 6630 C	2.0	BDL
6	Aldrin	µg/L, Max	APHA 23rd edition: 6630 C	0.03	BDL
7	Dieldrin	µg/L, Max	APHA 23rd edition: 6630 C	0.03	BDL
8	Alpha HCH	µg/L, Max	APHA 23rd edition: 6630 C	0.01	BDL
9	Beta HCH	µg/L, Max	APHA 23rd edition: 6630 C	0.04	BDL
10	Delta HCH	µg/L, Max	APHA 23rd edition: 6630 C	0.04	BDL
11	Butachlor	µg/L, Max	APHA 23rd edition: 6630 C	125.0	BDL
12	Chloropyrifos	µg/L, Max	APHA 23rd edition: 6630 C	30.0	BDL
13	2,4-Dichlorophenoxyacetic acid	µg/L, Max	APHA 23rd edition: 6630 C	30.0	BDL
14	p p DDE	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
15	p p DDD	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
16	p p DDT	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
17	o p DDE	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
18	o p DDD	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
19	o p DDT	µg/L, Max	APHA 23rd edition: 6630 C	1.0	BDL
20	Ethion	µg/L, Max	APHA 23rd edition: 6630 C	3.0	BDL

Plot No.- M-22 & 23, Chandaka Industrial Estate, Patia, Bhubaneswar, Khurda, Odisha-751024, India Tel.: 0674-3511721  
E-mail: [visiontek@visiontek.org](mailto:visiontek@visiontek.org), [visiontek.in@gmail.com](mailto:visiontek.in@gmail.com)  
Visit us at: [www.visiontek.org](http://www.visiontek.org)

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)

Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.



# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

21	Lindane	µg/l, Max	APHA 23rd edition: 6630 C	2.0	BDL
22	Isoproturon	µg/l, Max	APHA 23rd edition: 6630 C	9.0	BDL
23	Malathion	µg/l, Max	APHA 23rd edition: 6630 C	190.0	BDL
24	Methyl parathion	µg/l, Max	APHA 23rd edition: 6630 C	0.3	BDL
25	Monocrotophos	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
26	Phorate	µg/l, Max	APHA 23rd edition: 6630 C	2.0	BDL

BACTERIOLOGICAL QUALITY					
1	Total Coliform	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
2	Faecal Coliform	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
3	E.Coli	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
TOXIC SUBSTANCES					
1	Mercury as (Hg)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.001	BDL
2	Cadmium as( Cd)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.003	BDL
3	Nickel as( Ni)	mg/l,max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	—	BDL
4	Arsenic as (As)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3114 B	0.2	BDL
5	Cyanide as (CN-)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 4500 CN' C,D	0.05	BDL
6	Lead as( Pb)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.1	BDL



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E-mail: [visiontek@visiontek.org](mailto:visiontek@visiontek.org), [visiontekin@gmail.com](mailto:visiontekin@gmail.com)  
Visit us at: [www.visiontek.org](http://www.visiontek.org)

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

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T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)

Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.



## EMP Compliance Annexure 19

**FORM 10**  
[ See rules 19 (1) ]  
**MANIFEST FOR HAZARDOUS AND OTHER WASTE**

1. Sender's Name & Mailing Address (Including Phone No & email)	Ferro Alloys Corporation Limited, Plot 30, Phase 1, 3rd Floor, New Sector - 1, Bhubaneswar, Dist. Bhubaneswar, Odisha - 751012, India
2. Sender's authorization No.	IND-IV-HW-288/10228 dt. 13-6-22
3. Manifest Document No.	001/23-24 dt. 15-11-2023
4. Transporter's Name & Address (including Phone No. and email)	Selb
5. Type of Vehicle	(Truck/Tanker / Special Vehicle)
6. Transporter's Registration No.	NIL
7. Vehicle Registration No.	OR-01-V-4646
8. Receiver's Name & mailing Address (including Phone No. and email)	M/s. Swaraj Lubricants, At - Govinda, P.O. Haldipada, Dist. Balasore, Odisha - 756027, India
9. Receiver's authorisation No.	IND-IV-HW-1028/12667 dt. 09-8-23
10. Waste Description	Used Oil
11. Total Quantity	01.64 MT
No. of Containers	2
12. Physical Form	Solid/Semi-Solid/Sludge/Oily Slurry/Slurry/Liquid
13. Special Handling Instructions and additional Information	a) Keep the material dry b) Never transport while hot and wet c) Avoid skin and eye contact d) Store in a dry and covered area e) Use safety shoes, helmet and goggles
14. Sender's Declaration	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 respect in proper condition for transport by road according to applicable national government regulations.
15. Transporter's Acknowledgment of Receipt of Wastes	Month: 11, Day: 15, Year: 2023
16. Receiver's Certification for Receipt of Hazardous and other waste	Month: 11, Day: 15, Year: 2023

Disposal of Used Oil

**STATE POLLUTION CONTROL BOARD, ODISHA**  
(FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA)  
Paribesh Bhawan, A/11B, Nilakantha Nagar, Unit - VIII  
Bhubaneswar - 751012, INDIA

**FORM 2**  
[See rule 6(2)]  
**RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD, ODISHA TO THE ACTUAL USER UNDER HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016**

1. Number of authorization: IND-IV-HW-1028/12667 and date of issue: 09-08-2023

2. Reference of application (No. and date): 4562076, dttd. 10-12-2022/ 01-08-2023.

3. M/s Swaraj Lubricants is hereby granted an authorization based on the enclosed signed inspection report for generation, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated At - Govinda, Haldipada, Balasore, Odisha - 756027.

Sl. No.	Category of Hazardous Waste as per the Schedules I, II, III and IV of these Rules	Waste Description	Quantity	Authorized Mode of Disposal or Recycling or utilization or Co-processing, etc.
1.	Schedules - I (Stream - 5.1)/ Schedules - IV (Sl. No - 20)	Hazardous Waste for Recycling/ Re-processing Used Oil/ Spent Oil	1,500 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
2.	Schedules - I (Stream - 5.2, 3.1, 3.3, 3.4 & 4.3)/ Schedules - IV (Sl. No - 20)	Waste Oil	6,000 T/A	Storage in containers over concrete floor under well ventilated covered shed followed by reprocessing
1.	Schedules - I (Stream - 4.1, 4.4 & 4.5)	Hazardous Waste Generation for disposal Spent Clay Containing Oil / Oily Sludge or Emulsion / Organic Residues From Process / Sediments & Solid From Waste Oil	20 T/A	Storage in impervious pits / containers under well ventilated covered shed followed by Co-processing in Cement Kiln Authorized by SPCB, Odisha / disposal in Authorized Hazardous Waste Incinerator / Common Hazardous Waste Treatment Storage Disposal Facility (CHWTSDF) (In case these hazardous wastes shall be used for making grease)

(1) The authorization shall be valid up to 31-03-2024.

(2) The authorization is subject to the following general and specific conditions.

CS CamScanner

Authorization of the  
recycler

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.



**PH Compliance Details**  
**Charge Chrome Plant of M/s Ferro Alloys Corporation Ltd**

SN	Point Raised by Locals/Public	Project Proponent Response	Physical Targets	Actions Taken	Compliance Status	Expenditure Investment Cost (INR)
Environmental Issues						
1	Environmental Protection	Various pollution control measures have been taken towards protection of environment in order to achieve the company's philosophy on Zero harm, zero waste and zero discharge. In this regard we have recently installed. Surface Run-off Treatment Plant (SRTP),	1. Surface Runoff Treatment Plant (SRTP)	SRTP has been installed to ensure Zero discharge from the plant	Complied	17169000
			2. Sewage Treatment Plant (STP)	Sewage Treatment Plant (STP) has been installed to treat domestic wastewater. Treated water is being used for gardening purpose	Complied	4106400
			3. Rainwater harvesting	PP has constructed 5 recharge wells and 3 rainwater harvesting pond	Complied	-
			4. Upgradation of existing Gas Cleaning Plant (GCP) & Installation of new Gas Cleaning Plant (GCP)	Upgradation of existing GCP has been completed. New GCP has been installed.	Complied	155364115
			5. Water channel for ETP & RWH	PP has already been designed as a Zero Liquid Discharge plant. All the runoff water has been treated through SRTP and stored in rainwater harvesting pond. STP has been installed to treat domestic wastewater.	Complied	-
			6. Dust Extraction System (DES) will be installed to control air pollution. Installation of Online CEMS & CAAQMS	Dedusting Systems have been installed to control air pollution. Online CAAQMS have been installed to monitor air quality. CEMS installation is in final stage & will be completed by 30.05.2024.	Complied	29023000
Healthcare Issues						

2	Local people demanded for regular health check-ups at village level	We will focus on peripheral development activities by working in the key thematic areas of quality education, health & livelihood. Under health priority will be given to Women and Child health. We have already facilitated our dispensary and ambulance for the benefit of the community and continue to do so.	200 health camps in six Gram Panchayats will be conducted on yearly basis	<p>1. 176 Health Camps conducted in core &amp; periphery gram panchayat providing free doctor consultation and medicine under the CSR budget.</p> <p>2. Awareness sessions has been conducted on Dengue, Malaria, Tuberculosis, and other disease to spread awareness among the commoners to bring them closer to government health schemes.</p> <p>3. FACOR also conducted awareness sessions on Menstrual Hygiene Management and Family Planning and distributed mask as a preventive measure from viral diseases.</p> <p>4. Nutrition kit support provided to TB patients in Bhadrak.</p>	Complied	2498711.35
3	Local Dispensaries are in bad shape without manpower and equipment and hence needs support by the industry.	Local Dispensaries are in bad shape without manpower and equipment and hence needs support by the industry	Basic equipment for two dispensaries will be supplied in Barpada village and Baghurai village	01 no 120 litter RO Water Purifier, 02 nos. Air purifier, and 10 nos. Steel Bench support has been provided to Barpada CHC for improving the overall condition of local CHCs under CSR budget.	Complied	259171.00
Plantation Program						

4	Adequate greenbelt should be developed	We have developed adequate greenbelt of various species in & around the plant and also started plantation in local villages in sync with the villagers.	1. Material Handling Area, Waste dump, Internal Roadsides & Boundary Areas; 9000 trees of Neem, Chakunda, Akasia, Amla, Debadaru types 2. Within Randia Village; 420 trees of Bela & Debadaru Plants 3. Within Koronta Village; 390 trees of Karanja & Mango trees 4. Within Saramanga Village; 340 trees of Chakunda & Mango trees 5. Additional 4000 fruit bearing trees will be distributed to local individuals of five Panchayats under social forestry program	A. 5875 Nos have been planted inside the plant premises. B. 300 trees planted with steel cage in the six gram panchayat of Bhadrak under CSR budget. C. 500 saplings distributed among community members under CSR budget.	Complied	2142515.00
<b>Social Infrastructure Management (Education &amp; Skill Development)</b>						
5	Promoting Primary /Secondary educations for nearby villages	PP shall facilitate Pre Schools at five nearby villages by repairing the classrooms and equipping classrooms as well.	100 numbers of Anganwadi centres for improving Pre-school facility for children in nearby Gram Panchayats	1. Tiles and paint work completed in 19 Anganwadis, Bio-waste dustbin provided to 21 Aganwadi centers, and table chair provided to 23 Anganwadis under CSR budget. 2. Mini Science lab has been installed in 02 government schools to promote STEM learning among the school students under CSR budget. 3. 120 litter RO Water purifier provided to 04 government schools to improve overall school condition under CSR budget.	Complied	1468838.06



6	Some assistance to local SHGs for livelihood Support	1.Capacity Building Training of SHG members 2. SHG meet 3. Micro enterprise promotion 4. Marketing Support 5. Technical know-how support to SHGs	Each year PP would be partnering with local SHGs for their skill enhancement. 250 women entrepreneurs would be supported. <b>SMEs with market linkage:</b> Promotion of Local Craft like, Bamboo Craft Making, Pisciculture, Small Trades such as Chappal making, Agarwati etc. Agri based interventions	1. 02 microenterprise (Donapattal and Agarbatti) established and supported with raw materials, training and market linkage under CSR budget. 2. Training provided to SHG women in bamboo craft including support of materials, and tools required under CSR budget. 3. Support of raw materials, and tools to 05 established SHG microenterprise under CSR budget. 4. Capacity leadership training given to SHG members under CSR budget.	Complied	2990548.09
7	Local Youths need to enhance their skill level	On the job training shall be imparted to chosen local people for their employability and skill enhancement either directly or through Business Partners.	120 Local Youths will be given basic Skill Training every year for four years based on their basic educational qualification chosen from surrounding six number of Panchayats	As of date a total of 108 nos. of apprentices are trained under the skill development campaign of the company. NAPS- 12, NATS- 64  80 community women given training in tailoring trade to enhance their income generation capacity under CSR budget.	Complied	5467422.00
<b>Grand Total</b>						<b>220489721</b>

For Ferro Alloys Corporation Limited



Chief HSE Officer

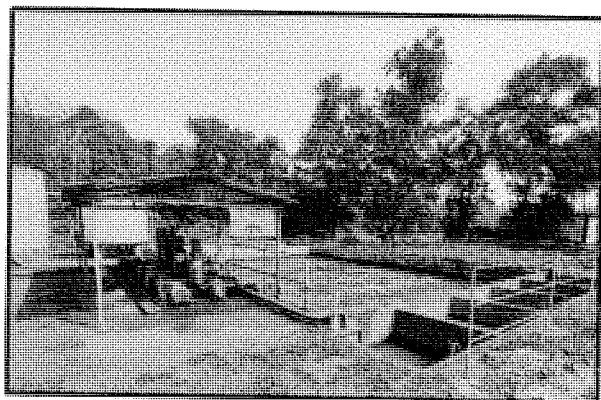
Krutisunder Mohapatra

## PH Compliance Details

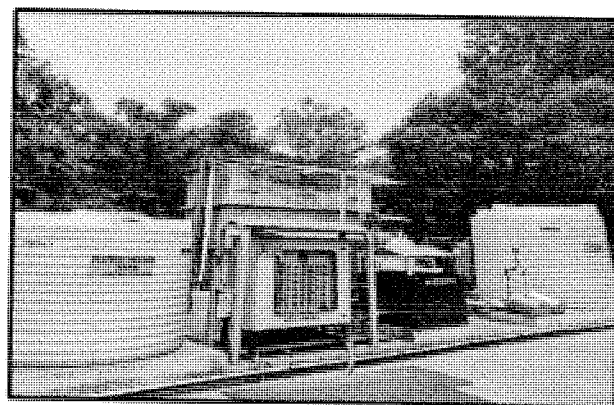
Charge Chrome Plant, M/S FACOR LTD

### **PH Compliance Serial Number-1**

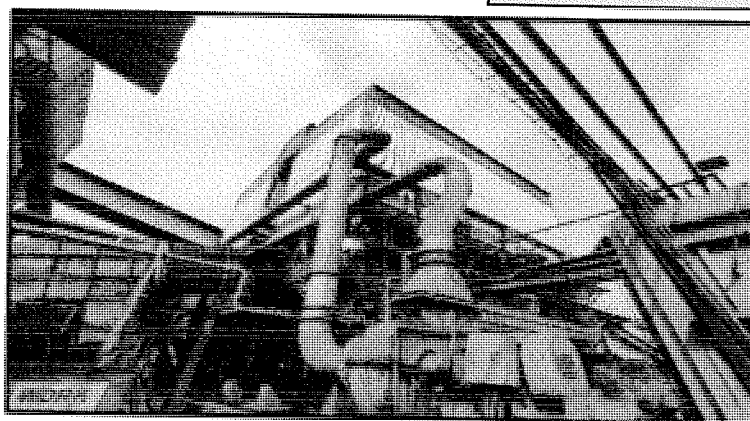
**Budget- INR 205662515/-**



Surface Runoff Treatment Plant



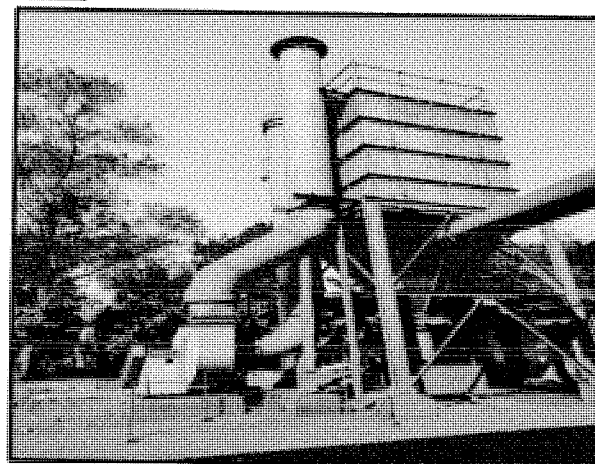
Sewage Treatment Plant



GCP



Rainwater Harvesting Pond

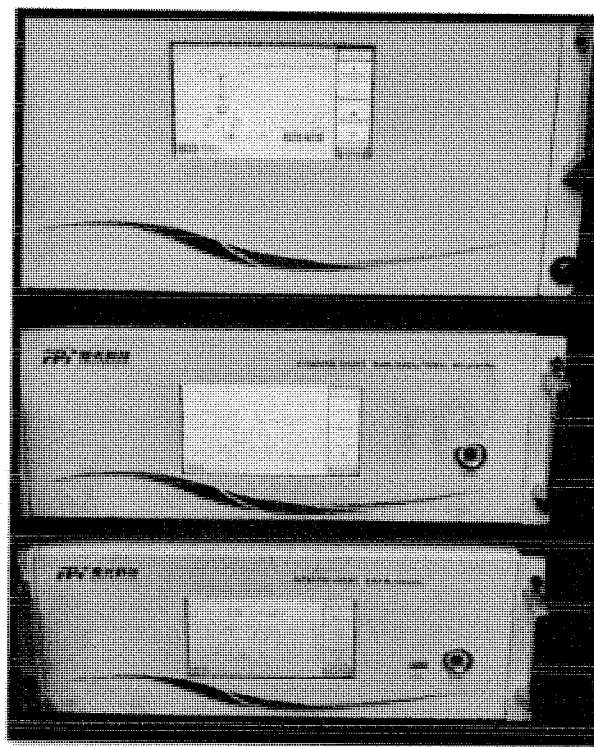
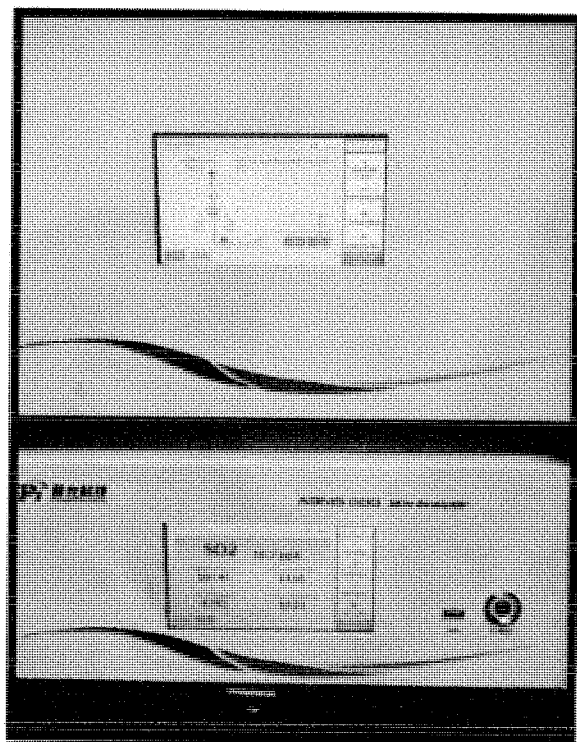
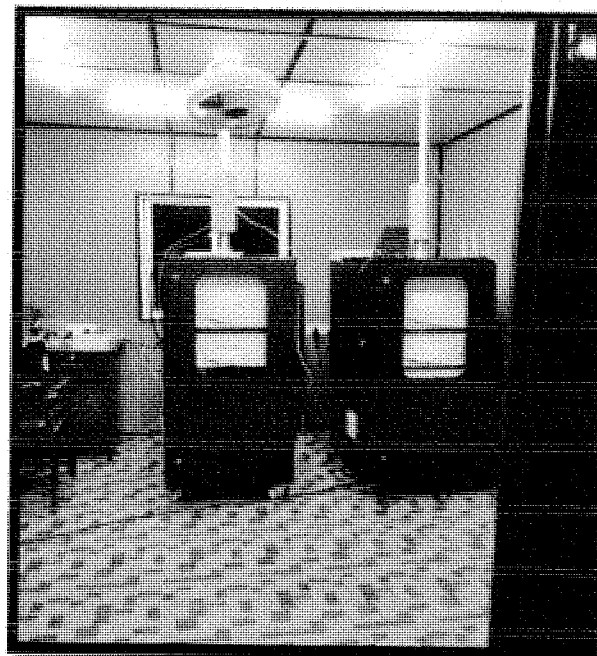
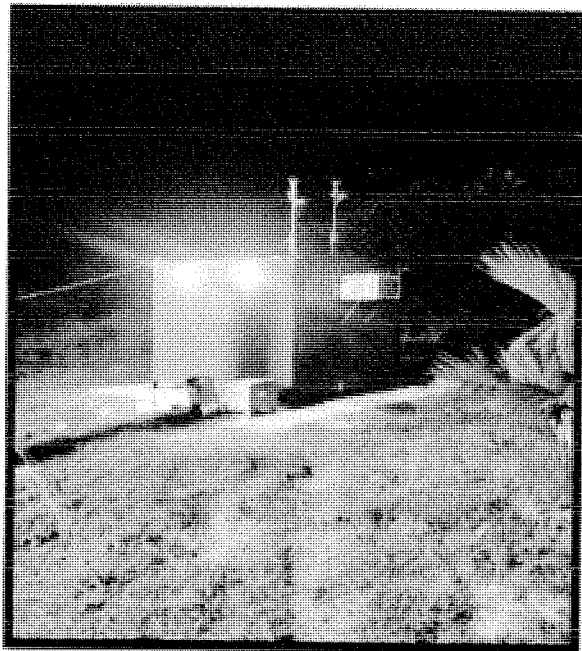


Dedusting Unit

## ***Online Ambient Air Quality Monitoring Station (OAAQMS)***

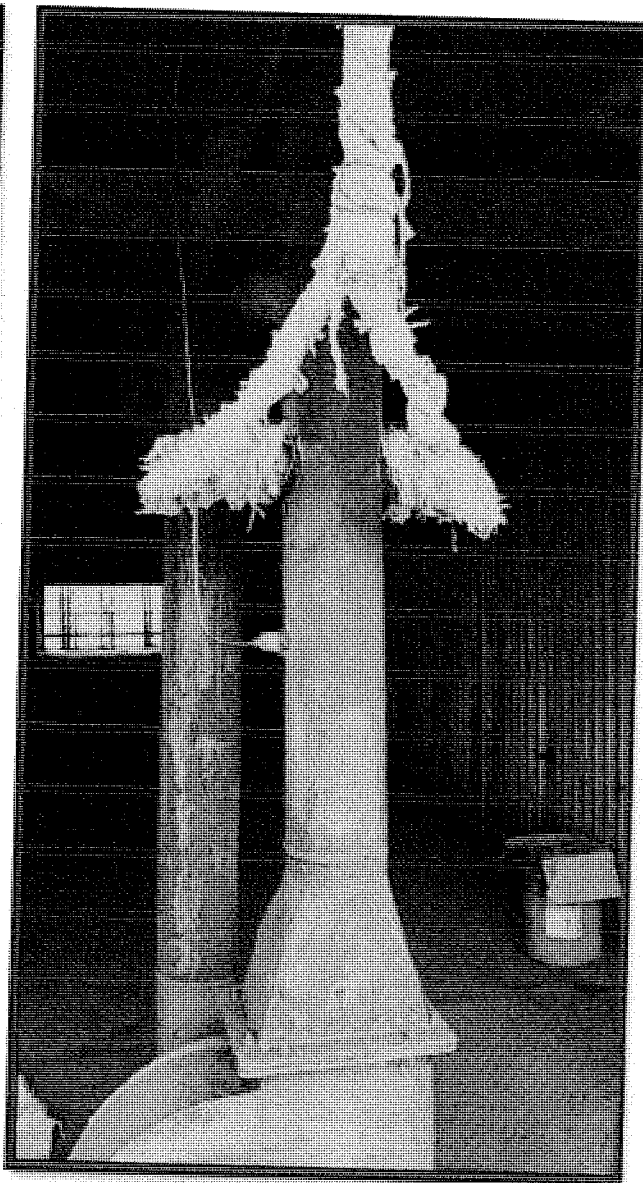
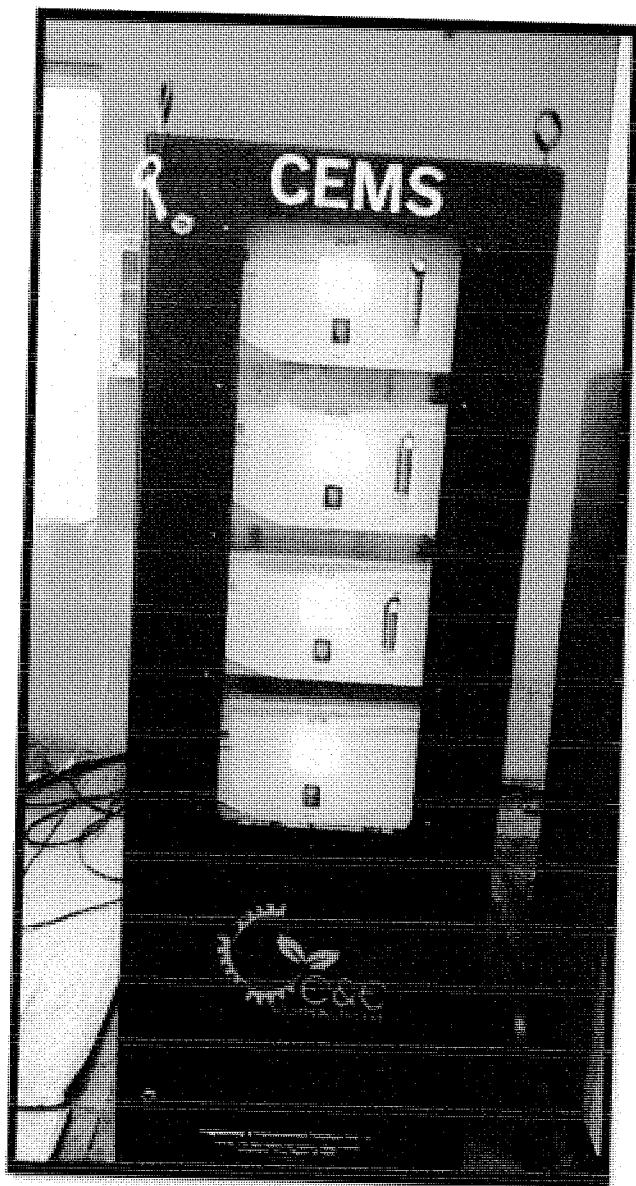
### ***Charge Chrome Plant of M/s Ferro Alloys Corporation Ltd***

*Location: Near Administrative building*





Online Continuous Emission Monitoring Systems (OCEMS)  
*Charge Chrome Plant of M/s Ferro Alloys Corporation Ltd*  
Location: Gas Cleaning Plant (GCP)



For Ferro Alloys Corporation Limited

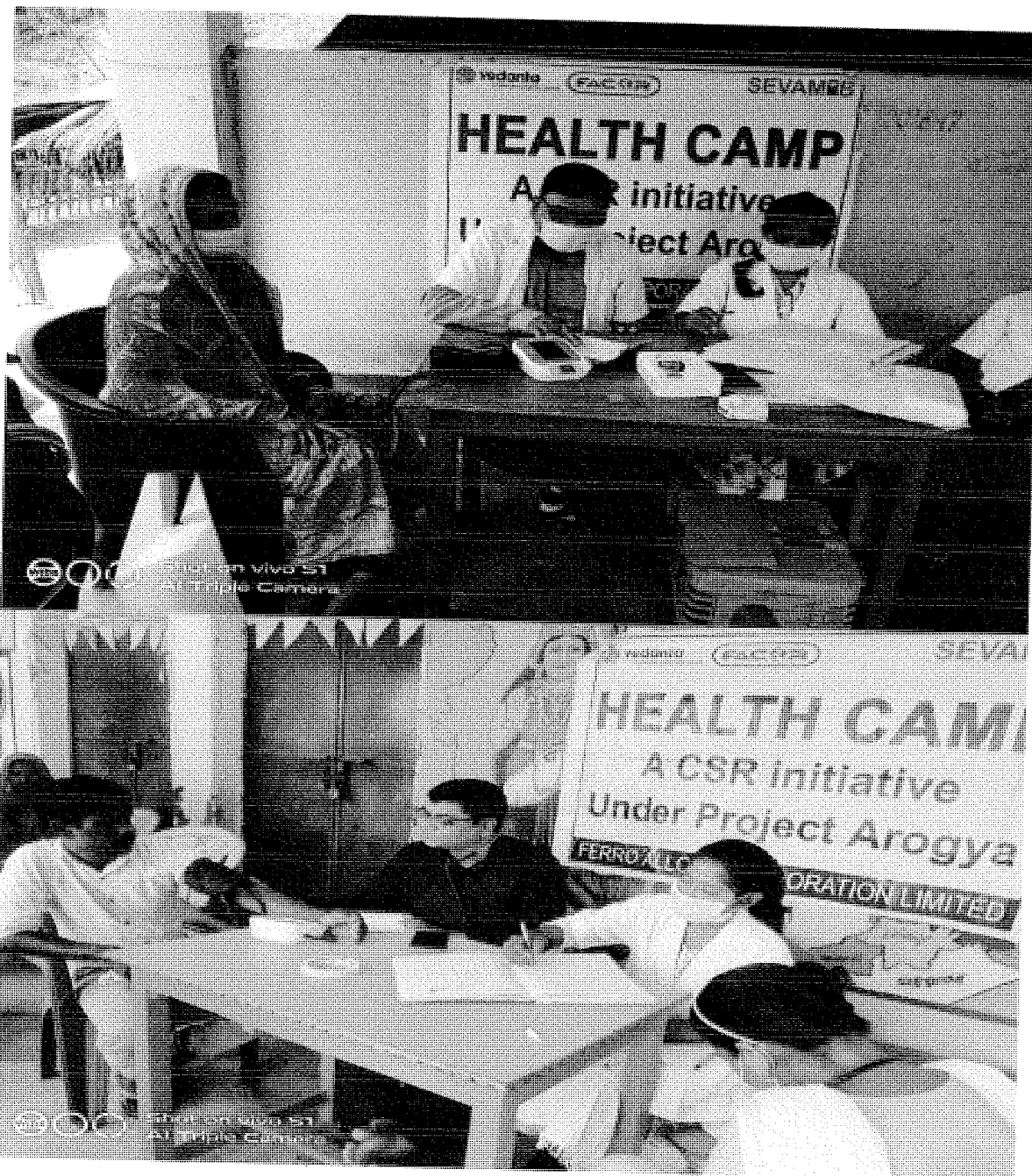
Chief HSE Officer  
Krutisunder Mohapatra

## **PH Compliance Serial Number-2**

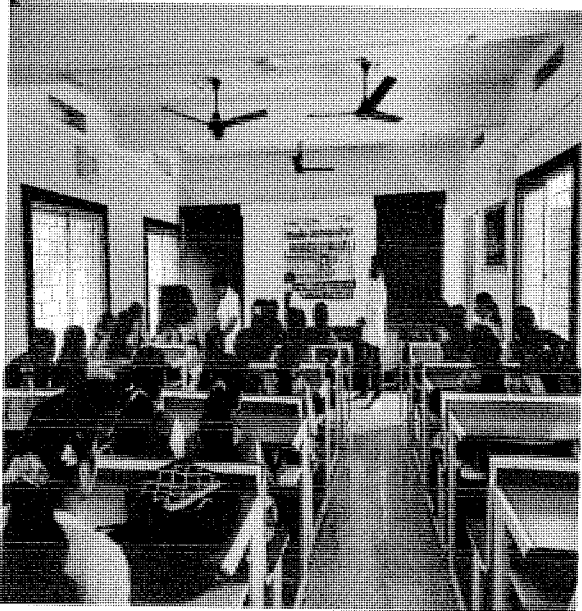
### **1. SUPPORT FOR HEALTH AND MEDICAL FACILITIES**

Budget: INR 24,98,711.35/- (Health Camps, Awareness Session, and TB patients)

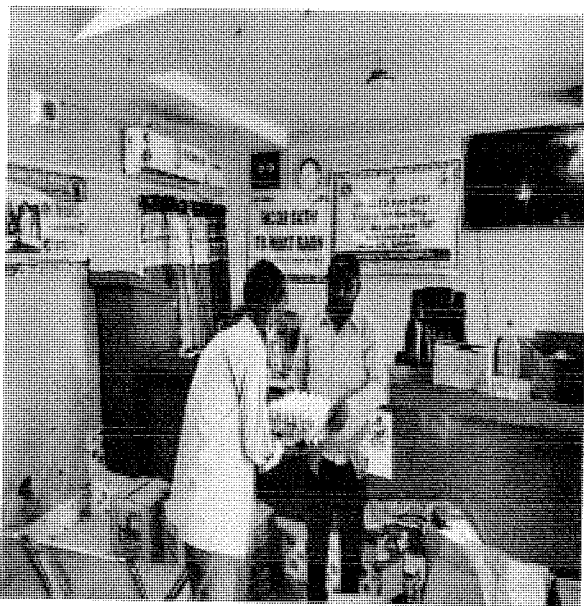
- i. **Health Camps:** FACOR organised 176 Health Camps in the CSR operational area of FACOR. Health camps included free doctor consultation along with distribution of medicines.



- ii. **Awareness sessions:** FACOR CSR team is dedicated to disseminating knowledge about Govt health schemes, preventive and curative health measures to community members through awareness sessions. Our team has conducted sessions on Dengue, Malaria, Tuberculosis, and other disease to spread awareness among the commoners to bring them closer to government health schemes.



- iii. **Nutri Kit Support to TB Patient:** Under FACOR CSR initiative, Nutrition kit support has been provided to TB patients in Bhadrak.






To  
The Head  
CSR Department  
FACOR Vedanta

**Thank You Letter**

Thanks a Lot to the CSR department of FACOR Vedanta for providing nutritional diets under the project T.B Mukta Gaon.

We have received the nutritional diets for 30 Persons for the month of January on dated 28-01-24, For the Month of February on 28-02-24 and for the month of March on 27-03-24.

Again Thanks a lot to the CSR department for this type of initiatives and hope for the same support in future.

  
Anand Kumar S.  
Head Office  
Bhadrak

## PH Compliance – Serial Number 3

### 2. Support to Local CHC:

FACOR has installed 01 Ro Waret and 02 Air purifier in Barpada CHC and supported with 10 Steel benches for improving the overall condition of local CHCs under CSR budget.

**Budget: INR 2,59,171/-**



SKN0-3225003146001361

**EUREKA FORBES**  
Your friend for life

**SERVICE REQUEST ACTIVITY REPORT**

THIS IS NOT A BILL. DON'T PAY AGAINST THIS REPORT

Customer Code	1651	Customer Name	Barpada CHC
Address	Randia, BP Bhadrak	Work Details / Customer Remarks	Installed in lane,
Telephone No.		Mobile No.	
Customer Signature		Facor Signature	

Confirmation of Free Spares / Consumable Replaced (Service Request / MS / AMC / FOC)

S.No.	Material Code	Material Description	QTY	Customer Signature
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Technical Sign: P.P. BP Signature: SAP Transaction No.

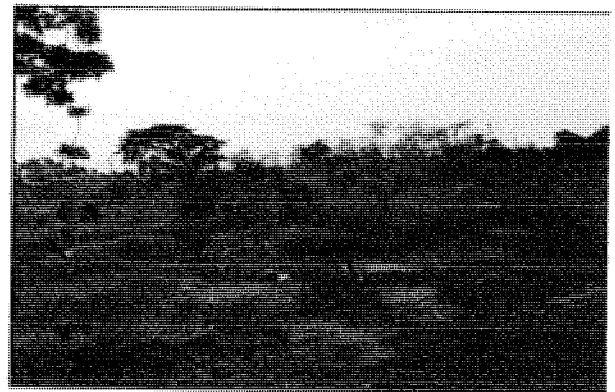


## **PH Compliance – Serial Number 4**

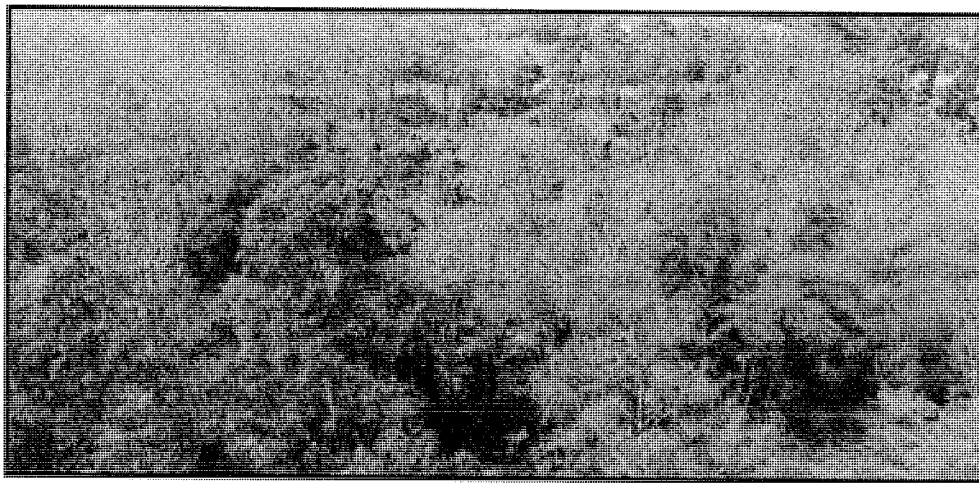
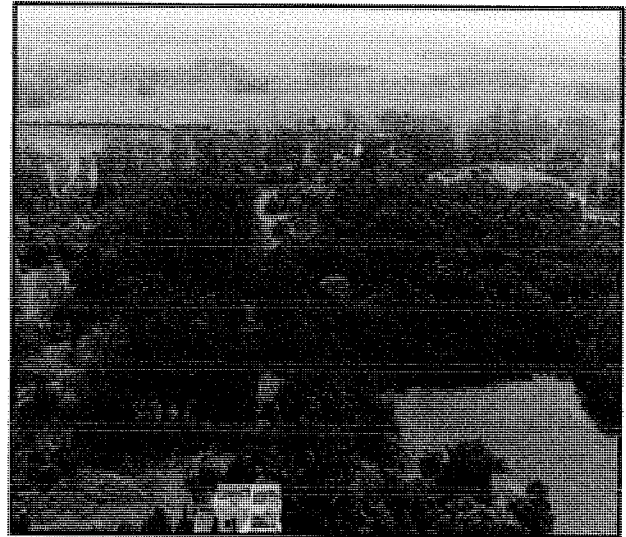
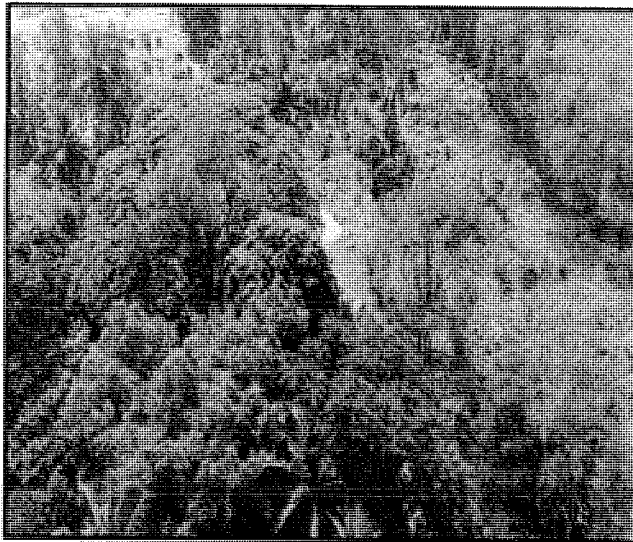
### **3. Green Belt Development Initiative-**

**Plantation:** 300 trees planted with steel cage in the six-gram panchayat of Bhadrak, and 500 saplings distributed among community members under CSR budget. 5875 Nos have been planted inside the plant premises.

**Budget:** INR 2142515/-







**M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)**

**Registered Office:**

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

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Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.

## **PH Compliance – Serial Number 5**

### **4. Support to Education**

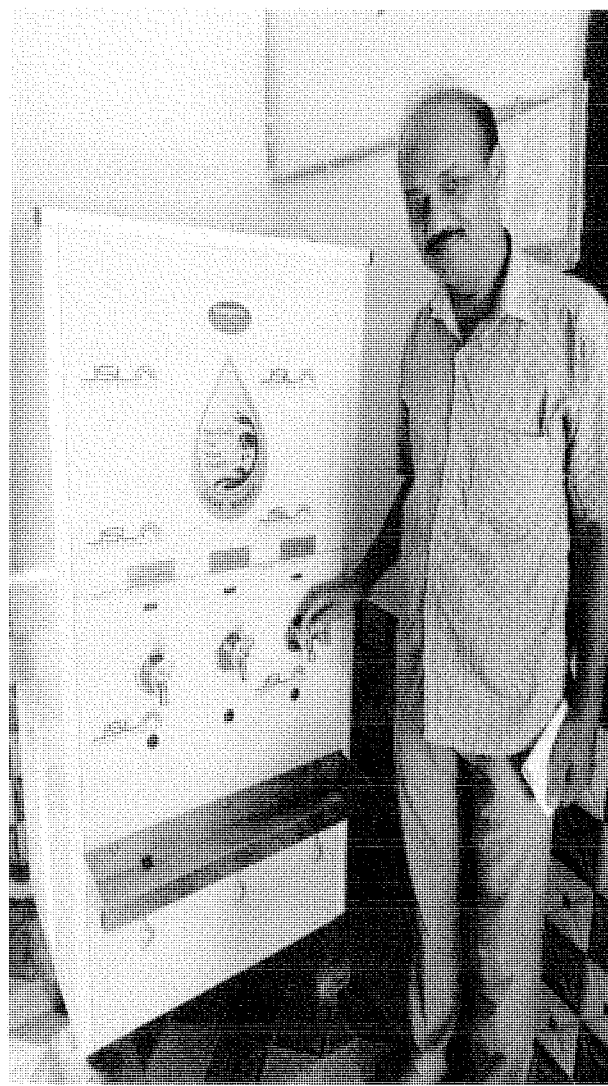
**i. Science Lab:** Mini Science lab has been installed in 02 government schools to promote STEM learning among the school students under CSR budget.

**Budget: INR 10,06,858.67/-**



**ii. Support of RO Water Purifier:** 120 litter RO Water purifier provided to 04 government schools to improve overall school condition under CSR budget.

**Budget: INR 461979.39/-**





## PH Compliance – Serial Number 6

**iii Support to Anganwadi:** Tiles and paint work completed in 19 Anganwadis, Bio-waste dustbin provided to 21 Anganwadi centre, and table chair provided to 23 Anganwadis under CSR budget.

**Budget: INR 16,11,822.09/-**



## 5. Support to SHG

- i. **Assistance to local SHGs for livelihood Support:** 02 microenterprise (Donapattal and Agarbatti) established and supported with raw materials, training and market linkage, training provided to SHG women in bamboo craft including support of materials and tools required, and Support of raw materials, and tools to 05 established SHG microenterprise under the CSR budget.

**Budget: INR 13,78,726/-**



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T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

## **PH Compliance – Serial Number 7**

- ii. **Tailoring Skill Centre:** 80 community women given training in tailoring trade along with Jivika kit and certification to enhance their income generation capacity under CSR budget.

**Budget: INR 6,45,178/-**





- iii. As on date, company has facilitated 64 nos of NATS & 12 nos NAPS candidates for apprenitce training.

**Budget (Apprentice stipend paid)- INR 4822244/-**

5/14/24, 5:00 PM

APPRENTICESHIP CONTRACT REGISTRATION FORM

### BOARD OF PRACTICAL TRAINING (EASTERN REGION)

(An Autonomous Body Under Ministry of Education, Department of Higher Education, Government of India)



Block -EA, Sector -I, Salt Lake City, (Opp. To Labony Estate),,Kolkata - 700064

Phone No: +91-33-2337 0750 / 2337 0751

Fax No: +91-33-2321 6814 Email:

Website: <https://nats.education.gov.in/>



### APPRENTICESHIP CONTRACT REGISTRATION FORM

#### APPRENTICE INFORMATION

Name <b>BILASINI KHUNTIA</b>	Gender <b>F</b>	Date of Birth <b>10 MAY 1998</b>	Age <b>26</b>
Father / Mother Name <b>SUKANTA KHUNTIA</b>	Enrollment Number <b>AORBH4761033</b>	Caste <b>OTHERS</b>	PWD <b>N</b>
Address for Communication <b>GORAMATI B.O, AT-CHAKAPUR, PO-GORAMATI, DIST-BHADRAK-ODISHA-756123,BHADRAK ODISHA,756123</b>	Mobile Number <b>7846912512</b>	Email Address <b><a href="mailto:bilasini9@gmail.com">bilasini9@gmail.com</a></b>	Contract Id <b>CORBHPGG23011573035</b>

#### EDUCATIONAL QUALIFICATION

Name of the Institution / College / University <b>B.N.M.A. COLLEGE</b>	Univ. Regn. Number / DOTE / DTE Regn. Number / +2 Regn <b>1104H16005</b>	Month & Year of passing <b>3, 2019</b>	Educational Qualification <b>BACHELOR OF ARTS - OFFICE MANAGEMENT</b>
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#### TRAINING DETAILS

Training start date <b>13 JAN 2024</b>	Period of Training <b>12 MONTHS</b>	Stipend Rs. per month <b>9000</b>
---	--	--------------------------------------

[https://nats.education.gov.in/industry\\_module/ACRF.php?token\\_id=CONTRACTWK170694176805bddd48e983d&suid=STU5168823](https://nats.education.gov.in/industry_module/ACRF.php?token_id=CONTRACTWK170694176805bddd48e983d&suid=STU5168823)

1/3

5/14/24, 5:00 PM

## APPRENTICESHIP CONTRACT REGISTRATION FORM

**The apprentice would be undergoing training under section 22 (1)**

**NAME AND ADDRESS OF THE EMPLOYER**

FERRO ALLOYS      Randiahath S.O -      ODISHA - 756135  
CORPORATION LTD - BHADRAK  
EORBHP000007

We, the Employer, Apprentice hereby declare that we have read the contents of the Apprenticeship Contracts as per the Apprenticeship Rules, 1962, as amended from time to time and agree to abide by all the provisions made thereunder. We also declare that all the provisions of the Apprentices Act, 1961, as amended from time to time including those relating to Registration and Termination of Contract are binding on us. According to the apprentice, it is inferred, that the apprentice has not undergone apprenticeship training elsewhere or had work. We will impart Apprenticeship training according to the approved training module/programme.

It is requested that the Registration Number may kindly be noted in your records and the claims for the reimbursement of Government share of stipend if any, may please be sent to this office once in a quarter along with Progress Report of the apprentices in the prescribed Form Apprenticeship -3.

**NOTE**

This is system generated ACRF document. Agreeing to the terms and conditions in the workflow is as good as signing of physical contract form on mutual agreement between Student and Establishment. It has all legal binding as per the law if mutual trust is breached.  
IP address of Establishment submitting this request: 117.252.251.66:64499 IP address of student accepting this request: 117.252.251.66:49358

**TERMS AND CONDITIONS OF THE CONTRACT OF APPRENTICESHIP FOR GRADUATE AND TECHNICIAN APPRENTICES**

1. The period of training shall be one year (In the case of Sandwich students the period of the training shall be as stipulated in curriculum)
2. It shall not be obligatory on part of the employer to offer any employment to the apprentice on successfully completing the apprenticeship training in their establishment nor shall it be obligatory on part of the apprentice to accept an employment under the employer NOTE: If, however, there is a condition in the contract of apprenticeship that the apprentice shall after the successful completion of training serve the employer, the employer shall, on such completion be bound to offer suitable employment to the apprentice and the apprentice shall be bound to serve the employer in that capacity for such period and for such remuneration as may be specified in the contract subject to the approval of the Central Apprenticeship Adviser.
3. Every apprentice undergoing apprenticeship training in an establishment shall be a trainee and not a worker and as such the provisions of any law with respect to labor shall not apply to or in relation to such apprentice
4. (i) The apprentice shall abide by the rules and regulations of the establishment in all matters of conduct and discipline and safety and carry all lawful order of the employer and superiors in the establishment  
ii) The apprentice shall learn his subject field conscientiously and diligently and attend to practical and instructional classes regularly  
iii) The apprentice shall maintain a record of his work during the period of apprenticeship

[https://nats.education.gov.in/industry\\_module/ACRF.php?token\\_id=CONTRACTWK1/06941/6865bddd48e983d&suId=SU15168823](https://nats.education.gov.in/industry_module/ACRF.php?token_id=CONTRACTWK1/06941/6865bddd48e983d&suId=SU15168823)

2/3

**M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)**

**Registered Office:**

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)

Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.

5/14/24, 5:00 PM

## APPRENTICESHIP CONTRACT REGISTRATION FORM

- training in a proforma approved by the apprenticeship advisor
- iv) Where the contract of apprenticeship is terminated for failure on the part of the apprentice of carry out terms of contract, the apprentice shall refund to the employer as cost of training such as amount as may be determined by the apprenticeship adviser. In such event, the apprentice shall not be entitled to enter into another contract of apprenticeship under the act with any other employer
- (v) The contract of apprentice can be terminated without compensation payable by the apprentice
- (a) If he/she secures gainful employment (on production of copy of the appointment order) and (b) If he/she is unable to continue training on medical grounds (on production of a certificate to this effect from a medical officer not below the rank of civil surgeon)
- (vi) For breach of contract by the employer, the employer shall pay compensation to the apprentice an amount equivalent to his three months last drawn stipend
- (vii) Continuance of payment of stipend shall depend on the satisfactory performance of the apprentice during the period
5. (i) The employer shall make a suitable arrangement in his establishment for imparting a course of apprenticeship training to the apprentice in accordance with the provisions for the Act and Rules made there under and with the approval of the respective Regional Central Apprentice Adviser
- (ii) Every employer is required to formulate a "Training Programme" for the training of Graduate/Technician apprentices and get it approved by the respective Regional Central Apprentice Adviser
- (iii) The employer will arrange for suitable person to be placed in charge of training of apprentices as laid down
6. (i) A Graduate/Technician Apprentice shall work according to the normal hours of work of the department in the establishment to which they are attached for training. Leaves for apprentices will be guided by the training establishments leave policy.br
- (ii) The stipend of a particular month shall be paid on or before the 10th of the following month
7. Please preserve copy of the ACRF and Certificate submitted by the candidate for future reference

Note: This is a computer generated report. No signature is required

Print



CN042429450

Model Contract of Apprenticeship Training for Major/Minor\* Apprentices

1. Name and Registered Address of Establishment : Ferro Alloys Corporation Ltd. (E08162100009)  
  
with Telephone no. & E-mail address : Ferro Alloys Corporation Ltd., Charge Chrome Plant, Bhadrak, Odisha  
  
: 06784-240320  
: alok.gaya@vedanta.co.in
2. (a) Name of Apprentice (Block Letters) : HAREKRUSHNA PATRA (A112266871)  
(b) Father's/Mother's /Spouse's Name : Krutibash Patra
3. Address of apprentice : RAMKRUSHNAPURA, Balo, Odisha, Bhadrak. 7  
: 56113, Balo,  
: Bhadrak, Odisha
4. Gender : Male
5. Date of Birth : 09-09-2004
6. (a) Whether belongs to SC/ST/OBC/PwD/ Minority : No  
(b) Name of the Category : General
7. Educational Qualification (Highest) : ITI - NCVT
8. (a) Category of Apprenticeship : Designated  
(b) Name of the trade for which Apprentice is training : Electrician
9. (a) Whether Basic Training is to be provided as part of Apprenticeship : No  
(b) If Basic Training is exempt - reason for exemption  
(i) Name of the Course : ITI  
(ii) Duration of Training/Course : From 2020-08-04 00:00:00 To 2022-10-17 00:00:00  
(iii) Name of the Institute : JAGANNATH INDUSTRIAL TRAINING CENTER  
(iv) Name of the Sector Skill Council (if applicable) : N/A
10. Apprenticeship Training duration (Total) : 2880 Hours  
(a) Duration of Basic Training : N/A  
Period of Basic Training : N/A  
(b) Duration of On-the-Job Training : 2880 Hours  
Period of On-the-Job Training : From 16-04-2024 to 15-04-2025  
(c) Training Type : Sequential
11. Apprenticeship Training Location : Bhadrak  
(a) Name and address of facility where Basic Training is to be provided : N/A  
  
(b) Name and address of the facility where On-the-Job Training is to be provided : Ferro Alloys Corporation Ltd.  
Bhadrak  
Bhadrak  
Odisha
12. (a) Date of execution of contract : 24-04-2024  
(b) Age of Apprentice on the date of execution of contract : 19 years, 7 months and 15 days
13. Is the establishment opting for benefits under NAPS\*? : Yes  
\*If yes, Annexure 2 to this contract will also be applicable.



**\*For DBT cases- Partial stipend support by the Government of India under NAPS will be limited to 25% of the stipend paid, upto a maximum of Rs. 1500 per month per apprentice during the apprenticeship training period.**

**For Non-DBT cases- Full stipend will be paid by the employer**

**14. Monthly stipend amount**

Year of training	Total stipend amount (in Rs.)	Break up of total stipend amount (in Rs.)	
		Employer's share out of col. 2	Government of India's share out of col. 2 (25% of stipend paid upto a maximum of Rs. 1500 per month per apprentice)
(a) During 1st year of training	7700	6260	1500
(b) During 2nd year of training	N/A	N/A	0
(c) During 3rd and 4th year of training	N/A	N/A	0

The Establishment agrees and understands that the minimum monthly stipend amount is prescribed in the Rule 11(1) of Apprenticeship Rule, 1992. The Establishment confirms that the agreed monthly stipend amount entered above must be higher than these minimum rates.

If the minimum rates are modified through legislation (either through modification of rules, or through modification of minimum wages payable) during the course of apprenticeship, this revised rates will apply as the minimum payable to Apprentice

15. (a) Name and Address of Guardian in case Apprentice is under 18 years of age (Minor) : N/A

(b) Relationship with the Apprentice : N/A

16. (a) Whether Apprentice was identified through approved Third Party Aggregator : No

(b) Name of TPA (if applicable) : N/A

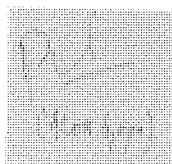
17. We, the Establishment, Apprentice/Guardian solemnly declare that we have read the Apprentices Act, 1961 and the Apprenticeship Rules, 1992 as amended from time to time, regarding the contract of apprenticeship training including obligations and terms and conditions contained in Schedule V and VI of the said rules and will comply with the same.

18. I, the Apprentice, declare that all details shared by me, including educational qualifications and other personal information shared, is correct and will provide original documents for verification at any time

19. We, the Establishment, have examined the Apprentice's information, including personal details, and will seek relevant documentation for verification as and when required.

20. In case of default by either the apprentice or the employer, we agree to compensate the other party as per the provisions of the Apprenticeship Rules, 1992 (Main Provisions of the Rules may be seen in the Annexure 1).

21. The Establishment, Apprentice/Guardian hereby also declares to comply with the terms and conditions of National Apprenticeship Promotion Scheme (NAPS), if applicable.



Signature of the  
Employer with seal



Signature of Apprentice

Signature of Guardian

FOR OFFICE USE ONLY

Contract Registration No. : CN042429450  
(To be given by the Office of the Apprenticeship Adviser)  
(Mandatory only for Registered Trades)

Signature of Registering Authority  
(Apprenticeship Advisor)  
(Registration required for Designation trade only)

Annexure 1 Contract of Apprenticeship Training

Some provisions of the Apprenticeship Rules relating to the Contract of Apprenticeship Training are reproduced below for sake of convenience.  
Both the Establishment and Apprentices have read and are bound by the provisions of the directions in have read the Apprentices Act, 1961 and the Apprenticeship Rules, 1992, which will apply to this Contract of Apprenticeship

1. The stipend for a particular month shall be paid by the tenth day of the following month. No deduction shall be made from the stipend for the period during which an apprentice remains on casual leave or medical leave. Stipend shall, however, not be paid for the period for which an Apprentice remains on extraordinary leave.
2. Where the Contract of Apprenticeship is terminated through failure on the part of the employer in carrying out the terms and conditions of the Contract (as notified under the Apprenticeship Rules, 1992), he shall pay to the apprentice compensation as determined by Apprenticeship Advisor.
3. In the event of premature termination of Contract of Apprenticeship for failure on the part of apprentice to carry out the terms and condition of the contract (as notified under the Apprenticeship Rules, 1992), the apprentice hereby guarantees to employer the payment of such amount as determined by the Apprenticeship Adviser as and towards the cost of training.

Annexure -2 | Covenants and conditions specific to NAPs scheme

1. For availing benefit under NAPS scheme, the course under which apprenticeship training is being provided, should be NSQF aligned.
2. Assessment and Certification shall be done jointly by the establishment and SSC/ NCVT/ other bodies as notified from time to time under NAPS guidelines.
3. The Establishment warrants and confirms that they have studied, understood and agree to comply with the guidelines that are applicable to Establishments that are part of the NAPS scheme. These guidelines are published at (<https://www.apprenticeshipindia.gov.in>) and maybe updated from time to time.

For Ferro Alloys Corporation Limited

Chief HSE Officer

Krutisunder Mohapatra



## Annexure 17

### 18. Online submission of 6 monthly EC Compliance in PARIVESH Portal.


Period of Compliance- 01 Oct 2022 to 31 Mar 2023

**EC Compliance Submission Status in Parivesh Portal**

Your (Environment Clearance) application has been Submitted with following details




Proposal No	IA/OR/IND/5802/2009
Compliance ID	34919016
Compliance Number(For Tracking)	EC/M/COMPLIANCE/34919016/2024
Reporting Year	2023
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	13-05-2024
IRO Name	ARTATRANA MISHRA
IRO Email	jhk109@ifs.nic.in
State	ODISHA
IRO Office Address	Integrated Regional Offices, Bhubaneswar

**Note:-** SMS and E-Mail has been sent to ARTATRANA MISHRA, ODISHA with Notification to Project Proponent.



**परिवेश**  
**PARIVESH**  
EC GREEN

पर्यावरण, वन और जलवायु परिवर्तन विभाग  
Ministry of Environment, Forest and Climate Change

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 [Environment Clearance](#) | 
 [Forest Clearance](#) | 
 [Wildlife Clearance](#) | 
 [CRZ Clearance](#) | 
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Welcome KARAN KUMAR KEJRIWAL, Project Proponent

**List of Uploaded Compliances**

Sr.No.	Proposal No. / Name of Project	Compliance No./ EC Letter Number	State and District	Year of Compliance	Period of Compliance	Remarks	Uploaded Date	Status	View
1	IA/OR/IND/5802/2009  Expansion of Ferro alloys Plant-High Carbon ferro Chrome production from 75,000 TPA (from 1 X 45 MVA SAF) and 6000 TPA from NRP up to 1,45,000 TPA (from 1 X 45 MVA & 1 X 33 MVA SAF) and 11,800 TPA from NRP by M/s Ferro Alloys Corporation Ltd., located at Village-Randia, District-Bhadrak, Odisha	EC/M/COMPLIANCE/34919016/2024  I-11011/594/2008-4A(II)	ODISHA  BHADRAK	2023	01 Jun(01 Oct - 31 Mar)		13-05-2024	Submitted Successfully	<a href="#">View Report</a> <a href="#">View Documents</a>

**Period of Compliance- 01 Apr 2023 to 30 Sep 2023**

**EC Compliance Submission Status in Parivesh Portal**

Your (Environment Clearance) application has been Submitted with following details	
Proposal No	IA/OR/IND/5802/2009
Compliance ID	67736386
Compliance Number(For Tracking)	EC/M/COMPLIANCE/67736386/2024
Reporting Year	2023
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	13-05-2024
IRO Name	ARTATRANA MISHRA
IRO Email	jhk109@ifs.nic.in
State	ODISHA
IRO Office Address	Integrated Regional Offices, Bhubaneswar
<b>Note:-</b> SMS and E-Mail has been sent to ARTATRANA MISHRA, ODISHA with Notification to Project Proponent.	



परिवेश  
**PARIVESH**  
(EPC SYSTEM)  
 पर्यावरण, वन और जलवायु परिवर्तन विभाग  
 Ministry of Environment, Forest and Climate Change



Dashboard | Environment Clearance | Forest Clearance | Wildlife Clearance | CRZ Clearance | Go To Home | Logout | Welcome KARAN KUMAR KEJIRIMAL, Project Proponent

**List of Uploaded Compliances**

Sl.No.	Proposal No./ Name of Project	Compliance No./ EC Letter Number	State and District	Year of Compliance	Period of Compliance	Remarks	Uploaded Date	Status	View
1	IA/OR/IND/5802/2009  Expansion of Ferro alloys Plant High Carbon Ferro Chrome production from 75,000 TPA (from 1 X 45 MVA SAP) and 6900 TPA from MRP up to 1,45,000 TPA (from 1 X 45 MVA & 1 X 33 MVA SAP) and 11,800 TPA from MRP by M/s Ferro Alloys Corporation Ltd., located at Village- Randia, District-Bhadrak, Odisha	EC/M/COMPLIANCE/67736386/2024  J-11011/594/2008- (A/J)	ODISHA  BHADRAK	2023	01 Dec(01 Apr - 30 Sep)		13-05-2024	Submitted Successfully	<a href="#">View Report</a> <a href="#">View Documents</a>
2	IA/OR/IND/5802/2009  Expansion of Ferro alloys Plant High Carbon Ferro Chrome production from 75,000 TPA (from 1 X 45 MVA SAP) and 6900 TPA from MRP up to 1,45,000 TPA (from 1 X 45 MVA & 1 X 33 MVA SAP) and 11,800 TPA from MRP by M/s Ferro Alloys Corporation Ltd., located at Village- Randia, District-Bhadrak, Odisha	EC/M/COMPLIANCE/34919016/2024  J-11011/594/2008- (A/J)	ODISHA  BHADRAK	2023	01 Jun(01 Oct - 31 Mar)		13-05-2024	Submitted Successfully	<a href="#">View Report</a> <a href="#">View Documents</a>

**M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)**

**Registered Office:**

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.



**FACOR****CHARGE CHROME PLANT****COPY**

Ref. : CCP/Mech/78

Date : 03.10.2009

**THROUGH COURIER SERVICE**

The Environmental Engineer-II,  
State Pollution Control Board, Orissa,  
Paribesh Bhawan,  
A/118, Nilakantha Nagar, Unit-VIII,  
BHUBANESWAR - 751 012.

Dear Sir,

Sub : Display of copy of Environmental Clearance for 30 days  
for reference of Public.

Ref. : Your Memo No. 14880 dated 16.09.09.

With reference to your above Memo and general condition No. X of Environmental Clearance, we have displayed an advertisement regarding Environmental Clearance on 1<sup>st</sup> October '09 in the daily Oriya Newspaper, SAMAJ and SAMBAD for information of Public. Copy of the same are enclosed herewith for your kind information and record.

Thanking you,

Yours faithfully,  
for Ferro Alloys Corporation Ltd.,  
Charge Chrome Plant.

(P.G. SURESH KUMAR)  
GENERAL MANAGER

Encl : As above.

Cc to : Collector & District Magistrate, Bhadrak.  
General Manager, D.I.C., Bhadrak.  
Regional Officer, State Pollution Control Board, Balasore.

Cc to : SM (P&S), SM (Maint), MF, REC.





## PUBLIC NOTICE

is hereby informed to the General Public that  
M/s. Ferro Alloys Corpn. Ltd. accorded  
Environmental Clearance from Ministry of  
Environment & Forest Govt. of India for  
increasing production capacity of Charge  
Chrome Plant, Randia Bhadrak from 65,000MT  
to 1,30,000MT p.a. The copy of the clearance  
letter is available with the State Pollution Control  
Board, Committee and also see see at  
website of Ministry of Environment & Forests at  
<http://envfor.nic.in>

S/3764



ଅଢ଼େଇ ଲକ୍ଷ

ଏତଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମନ୍ତେ ଜଣାଇ  
ଦିଆଯାଉଛି କି ସେପେକର, ଚାନ୍ଦିନୀପୁର ପାଣ୍ଠି ରାସ୍ତା, ତାହାର  
ମାଷିକ ଉତ୍ପାଦନ କ୍ଷମତା ୧୫,୦୦୦ ଟନ୍ ରୁ ୧,୩୦,୦୦୦  
ଟନ୍ କୁ ବୃଦ୍ଧି କରିବା ପାଇଁ ଭାରତ ସରକାରଙ୍କ ନିର୍ଦ୍ଦେଶ  
ଏବଂ ପରିବେଶ ମନ୍ତ୍ରାଳୟ ଦ୍ୱାରା ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ହୋଇଛି  
ଉକ୍ତ ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ତିରି ଓଡ଼ିଶା ସରକାରଙ୍କ ପ୍ରଦ୍ୟୁଷଣ  
ନିୟମାବଳୀରେ ଉପଲବ୍ଧ । ଏହା ମଧ୍ୟ ଭାରତ ସରକାରଙ୍କ  
ପ୍ରଦ୍ୟୁଷଣ ଏବଂ ନିର୍ଦ୍ଦେଶ ବିଭାଗର Website <http://invor.nic.in> ରେ ଦେଖାଯାଇ ପାରିବ ।





FACOR / Bhadrak / Legal / 076 /2023

25<sup>th</sup> August 2023

To

**The Deputy Director General of Forests (C )**  
 Ministry of Environment, Forest & Climate Change  
 Integrated Regional Office, A/3, Chandrasekharapur  
 Bhubaneswar – 751023,  
 Email : [roez.bsr-mef@nic.in](mailto:roez.bsr-mef@nic.in)

Ref : Environmental Clearance Identification No.: EC22A008OR193113, dtd.31.10.2022

Sub : Compliance to the General Condition no. X(vii) of the Environment Clearance issued for expansion of the Charge Chrome Plant of M/s Ferro Alloys Corporation Ltd (FACOR) granted vide EC Identification No. EC22A008OR193113, dtd.31.10.2022

Dear Sir,

In compliance to the General Condition no.X(vii) of the Environment Clearance (Page no 11 of the EC) issued for expansion of the Charge Chrome Plant of M/s Ferro Alloys Corporation Ltd (FACOR) granted vide EC identification No. EC22A008OR193113, dtd.31.10.2022, we are submitting herewith the compliance report for your kind perusal and records as under :

**General Condition – Miscellaneous (Page no.11 of the EC) :**

**Condition no. X(vii):** “The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.”

**Compliance to the Condition No X(vii) of the EC**

- |   |              |
|---|--------------|
| a) Date of financial closure of the expansion project         | : 31.10.2022 |
| b) Final approval of the project by the concerned authorities | : 31.10.2022 |
| c) Commencing the land development work                       | : 14.12.2022 |
| d) Start of production operation by the project               | : 27.06.2023 |

This is for your kind information and records please.

Thanking you

Yours faithfully

For Ferro Alloys Corporation Ltd.



Factory Manager  
 Charge Chrome Plant

Copy to : The Director I.A Division, Ministry of Environment and Forest, Paryavaran Bhawan, New Delhi  
**M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)**

**Registered Office:**

D.P.Nagar, PO : Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: [facor.mines@vedanta.co.in](mailto:facor.mines@vedanta.co.in) / [facor.ccp@vedanta.co.in](mailto:facor.ccp@vedanta.co.in)Website: [www.facorgroup.in](http://www.facorgroup.in), CIN: U45201OR1955PLC008400.





# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

ANNEXURE-20

Test Report No: ENVLAB/24-25/TR-00576

Date: 05.04.2024

## GROUND WATER QUALITY ANALYSIS REPORT FOR MAR-24

Name & Address of the Customer	:	Ferro Alloys Corporation Ltd., Charge Chrome Plant, D.P. Nagar, Randia, Bhadrak		
Sample Description	:	Drinking Water	Date of Sampling	: 28.03.2024
			Sample Received on	: 29.03.2024
			Sampling Procedure	: APHA 1060 B
Identification by Customer	:	DW-1	Sampling Location	: GW-1: Borewell no-2
Sample Condition	:	Ice Preserved	Sampling done by	: Ashutosh Mohanty
Test Started on	:	29.03.2024	Test Completed on	: 05.04.2024

Sl. No.	Parameter	Unit	TEST METHOD	Standard as per IS -10500:2012 Amended on 2015 & 2018	Analysis Result
				Permissible Limit	
Physical Parameter					
1	Colour	Hazen,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2120 B, C	5	<5
2	Odour	--	APHA 23 <sup>rd</sup> Ed,2017 :2120 B	Agreeable	Agreeable
3	Taste	--	APHA 23 <sup>rd</sup> Ed,2017 : 2160 C	Agreeable	Agreeable
4	Turbidity	NTU,Max	APHA 2130 B	1	0.9
5	pH at 25 <sup>o</sup> C	--	APHA 23 <sup>RD</sup> Ed,2017 : 4500H <sup>+</sup> B	6.5-8.5	7.5
6	Dissolved Solids	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2540 C	500	416
CHEMICAL PARAMETER					
1	Total Hardness (as CaCO <sub>3</sub> )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 2340 C	200	187
2	Iron (as Fe)	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 3111, B	1.0	0.38
3	Chloride (as Cl )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 4500Cl <sup>-</sup> B	250	25.0
4	Residual, free Chlorine	mg/l,Min	APHA 4500 Cl B	0.2	ND
5	Calcium (as Ca )	mg/l,Max	APHA 23 <sup>rd</sup> Ed,2017 : 3500Ca B	75	32.8
6	Magnesium (as Mg)	mg/l,Max	APHA 3500 Mg B	30	25.5
7	Copper (as Cu)	mg/l,Max	APHA 3111 B,C	0.05	BDL
8	Manganese (as Mn)	mg/l,Max	APHA 3500Mn B	0.1	<0.05
9	Sulphate (as SO <sub>4</sub> )	mg/l,Max	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E	200	6.3
10	Nitrate (as NO <sub>3</sub> )	mg/l,Max	APHA 4500 NO <sub>3</sub> <sup>-</sup> E	45	BDL
11	Fluoride (as F)	mg/l,Max	APHA 4500 F,C	1.0	BDL
12	Phenolic Compounds(as C <sub>6</sub> H <sub>5</sub> OH)	mg/l,Max	APHA 5530 B,D	0.001	BDL
13	Anionic Detergents (as MBAS)	mg/l,Max	APHA 5540 C	0.2	BDL
14	Chromium (as Cr <sup>+6</sup> )	mg/l,Max	APHA 3500Cr B	0.05	BDL
15	Mineral Oil	mg/l,Max	APHA 5520 B	0.5	BDL



# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

16	Alkalinity	mg/l,Max	APHA 2320 B	200	110
17	Aluminium as( Al)	mg/l,Max	APHA 3500Al B	0.03	BDL
18	Boron (as B)	mg/l,Max	APHA 4500 B.B	0.5	BDL
19	Ammonia (as total ammonia-N)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 4500	0.5	BDL
20	Barium (as Ba)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.7	BDL
21	Silver (as Ag)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.1	BDL
22	Polyaromatic hydrocarbons (PAH)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 :6440 B	0.0001	BDL
23	Total Chromium (as Cr)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.05	0.05
24	Zinc (as Zn)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	5	1.33
25	Selenium (as Se)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3500 Se C	0.01	BDL
<b>PESTICIDES</b>					
1	Endosulfan à	µg/l,Max	APHA 23rd edition: 6630 C	0.4	BDL
2	Endosulfan ß	µg/l,Max	APHA 23rd edition: 6630 C	0.4	BDL
3	Endosulfan sulphate	µg/l,Max	APHA 23rd edition: 6630 C	0.4	BDL
4	Alachlor	µg/l, Max	APHA 23rd edition: 6630 C	20	BDL
5	Atrazine	µg/l, Max	APHA 23rd edition: 6630 C	2.0	BDL
6	Aldrin	µg/l, Max	APHA 23rd edition: 6630 C	0.03	BDL
7	Dieldrin	µg/l, Max	APHA 23rd edition: 6630 C	0.03	BDL
8	Alpha HCH	µg/l, Max	APHA 23rd edition: 6630 C	0.01	BDL
9	Beta HCH	µg/l, Max	APHA 23rd edition: 6630 C	0.04	BDL
10	Delta HCH	µg/l, Max	APHA 23rd edition: 6630 C	0.04	BDL
11	Butachlor	µg/l, Max	APHA 23rd edition: 6630 C	125.0	BDL
12	Chloropyrifos	µg/l, Max	APHA 23rd edition: 6630 C	30.0	BDL
13	2,4-Dichlorophenoxyacetic acid	µg/l, Max	APHA 23rd edition: 6630 C	30.0	BDL
14	p p DDE	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
15	p p DDD	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
16	p p DDT	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
17	o p DDE	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
18	o p DDD	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
19	o p DDT	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
20	Ethion	µg/l, Max	APHA 23rd edition: 6630 C	3.0	BDL





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- Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

21	Lindane	µg/l, Max	APHA 23rd edition: 6630 C	2.0	BDL
22	Isoproturon	µg/l, Max	APHA 23rd edition: 6630 C	9.0	BDL
23	Malathion	µg/l, Max	APHA 23rd edition: 6630 C	190.0	BDL
24	Methyl parathion	µg/l, Max	APHA 23rd edition: 6630 C	0.3	BDL
25	Monocrotophos	µg/l, Max	APHA 23rd edition: 6630 C	1.0	BDL
26	Phorate	µg/l, Max	APHA 23rd edition: 6630 C	2.0	BDL

BACTERIOLOGICAL QUALITY					
1	Total Coliform	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
2	Feacal Coliform	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
3	E.Coli	MPN/100 ml	APHA 23 <sup>rd</sup> Ed.2017: 9221 B	Shall not be detectable in any 100 ml sample	ABSENT
TOXIC SUBSTANCES					
1	Mercury as (Hg)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.001	BDL
2	Cadmium as( Cd)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3111 B	0.003	BDL
3	Nickel as( Ni)	mg/l,max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	--	BDL
4	Arsenic as (As)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 3114 B	0.2	BDL
5	Cyanide as (CN-)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017: 4500 CN <sup>-</sup> C,D	0.05	BDL
6	Lead as( Pb)	mg/l,Max	APHA 23 <sup>rd</sup> Ed.2017 3111 B	0.1	BDL



Reviewed by:



Approved By



## Annexure 21

### Environment Management Cell

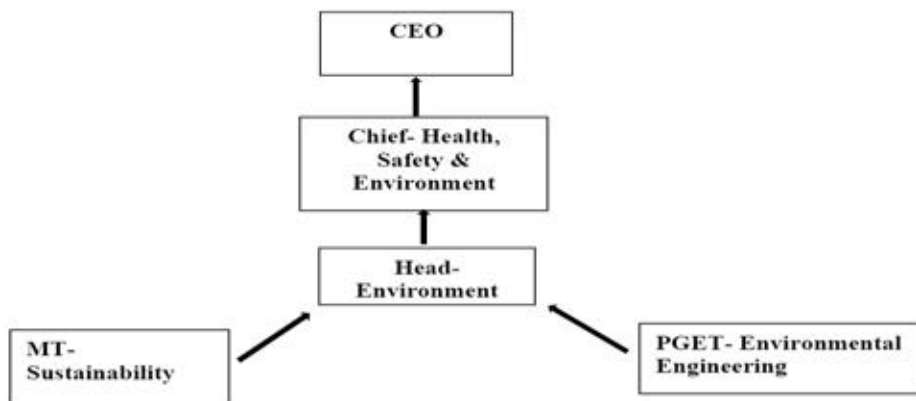


#### STATUS OF ENVIRONMENT MANAGEMENT CELL IN M/S FERRO ALLOYS CORPORATION LTD.

A. Details of Persons available in the Cell:

SL.N o.	Name of the Persons	Designation	Duty assigned	Mob. No / Email	Qualification	Experience
01	Krutisunder Mohapatra	Chief- HSE	Health, Safety & Environment	7894405442 krutisunder.mohapatra@vedanta.co.in	M.Tech in ENV., PDIS, PGDBM	23 Yrs.
02	Biswa Bhushan Panigrahi	Head- Environment	Env.mgmt.& Pollution control	7735738480 Biswabhusan.Panigrahi@vedanta.co.in	Postgraduate in Environmental Science	15 Yrs.
03	Avik Biswas	MT- Sustainability	ESG & Sustainability	8902791259 Avik.Biswas@vedanta.co.in	Postgraduate Diploma in Forestry Management	
04	Priyadarshi Rai	PGET- Environmental Engineering	Env.mgmt.& Pollution control	7908866705 Priyadarshi.Rai@vedanta.co.in	M.Tech in Environmental Engineering	
05	Somnath Pal	PGET- Environmental Engineering	Env.mgmt.& Pollution control	9064376724 Somnath.Pal@vedanta.co.in	M.Tech in Environmental Engineering	

B. Reporting system of the Environment Management Cell (Please enclose Organization Chart).



M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P. Nagar, PO: Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

EXTRACT FROM THE MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF FERRO ALLOYS CORPORATION LIMITED CONVENED AND CONDUCTED AS A MEETING HELD THROUGH ELECTRONIC MODE AND VENUE RECORDED AS D.P. NAGAR, RANDIA, BHADRAK-756135, ODISHA ON THURSDAY, OCTOBER 19, 2023 AT 12.10 P.M.


**Adoption of Vedanta Environmental Policy for the Company**

“**RESOLVED THAT** the Board accorded its approval for adoption of Vedanta Environmental Policy along with other related policies viz. biodiversity policy, water management policy and carbon energy policy.

**RESOLVED FURTHER THAT** Mr. Pankaj Kumar Sharma, Whole-Time Director be and is hereby authorised to implement this environmental policy in the Company.

**RESOLVED FURTHER THAT** the Board of Directors of the Company be and is hereby authorized to adopt the revised environmental policy deem fit and suggest the changes and/or improvements therein, if any, required from time to time by Vedanta Ltd.”

**Certified to be true  
Ferro Alloys Corporation Limited,**



**Company Secretary  
Sambit Kumar Sarangi  
ACS 11105**

## Environmental Policy

### **Purpose**

Vedanta Limited ("Vedanta") is committed to achieving excellence in environmental management. Our goal is to minimise environmental impacts of our business across the entire lifecycle by implementing pollution-prevention and natural resource conservation actions either on site or off site.

This policy is forward looking and sets a vision for businesses across the Vedanta group.

### **Scope**

This policy is applicable to all Vedanta Limited companies, including subsidiaries, joint ventures, and acquisitions, managed sites, licensees, outsourcing partners, corporate offices, and research facilities. This policy is also applicable to all Vedanta Limited employees, contractor employees, business partners, suppliers, and others with whom Vedanta does business.

In addition, this policy is applicable throughout the operational lifecycle of the projects and mines, covering stages from exploration and planning to evaluation, operation, and closure. Furthermore, it extends to activities in our upstream and downstream value chain, limited to distribution, logistics, and sale of products and services to the customer.

### **Objectives of the Environmental Policy**

Vedanta will strive to:

- Comply with applicable national, regional, and local environmental regulations and statutory obligations. In the absence (or lack) of appropriate legislation, industry best practices and applicable international standards will be used.
- Develop, implement, and improve environmental management systems, consistent with world-class standards.
- Set targets and objectives to avoid, reduce or mitigate Environmental impacts on people and planet.
- Consistently assess our environmental risks, manage our impacts, take appropriate mitigation and adaptation measures, and communicate our environmental strategy to our stakeholders.
- Incorporate appropriate environmental criteria for all business decisions including the planning, operationalization, and closure of the projects.
- Conduct regular environmental review and due diligence of the projects (including for mergers & acquisitions) to identify, prioritize, assess, and take effective actions for mitigating the potential environmental risks.
- Drive continuous environmental performance improvement by implementing appropriate available practices and technology.
- Conserve natural resources by adopting environment-friendly and energy-efficient technologies through process improvements.
- Apply mitigation hierarchy (avoid, reduce, reuse, recycle, disposal) to environmental impacts and adopt the principles of circular economy.
- Manage impacts related to energy, carbon emissions, waste, nature, air emissions, land-use & biodiversity, and water.
- Raise awareness of internal and external stakeholders including business partners, suppliers, and other stakeholders on adoption of practices in alignment with our policies, thereby fostering a collective commitment to managing environmental impacts.
- Provide appropriate training to all employees and emphasize the importance of minimising risks to environment, while also understanding the impacts of their work activities on the environment.
- Communicate with all our stakeholders on the progress and performance of Environment management.
- Review the performance against the policy on a periodic basis to ensure management of environmental



impacts as per our objectives including the sharing of good practices throughout the organization and stakeholders

### **Responsibility & Review**

This policy is part of the Vedanta Sustainability Framework and each Vedanta business shall implement this policy. The Group CEO will be accountable for controlling and setting the policy, and the Group Executive Committee are responsible for the full implementation of the policy and associated standards. The Board ESG Committee will review this policy annually and recommend appropriate revisions to the Board as may deem necessary.

Related additional policies: Energy & Climate Change Policy, Biodiversity Policy, Water Policy, Tailing Management Policy

Signed by:



Sunil Duggal

Group CEO, Vedanta

Limited Date: 27<sup>th</sup> July

2023



## **Technical Standard – Water Management**

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**Vedanta Resources Plc**

**Sustainability Governance System**


**Technical Standard**  
**Water Management**

## Technical Standard – Water Management

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<b>Standard Title:</b>	<b>Water Management</b>	<b>Date of Revision</b>	02/12/11
<b>Standard:</b>	VED/CORP/SUST/TS 14	<b>Revision:</b>	v.1

Document Issue and Revision History		
DATE	REVISION NUMBER	CHANGE SUMMARY
02/12/11	1	Initial issue.

<b>Authorised by:</b>	Tony Henshaw
<b>Signature</b>	
<b>Position:</b>	Chief Sustainability Officer

### Confidentiality

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# Technical Standard – Water Management

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# Technical Standard – Water Management

## 1. INTRODUCTION

Vedanta recognises the social, economic and environmental value of water and the impacts that its operations and activities may have on water resources. Protecting water resources is a priority for Vedanta and it is integral to our commitment to sustainable development. In recognition of this commitment and in accordance with our Water Management Policy this Standard aims to facilitate the integration of water management into decision making processes for new and existing projects and to help ensure that all necessary measures are taken to avoid, minimize and in some cases compensate for the impacts of our projects. This Standard supports Vedanta's *Water Management Policy*.

The assessment and management of impacts of new projects shall be considered as part of the overarching environmental and social impact assessment and therefore this document should be read in conjunction with the *Conducting ESIA to International Standards* Technical Standard for such purposes. For existing projects, reference shall also be made to existing environmental management provisions adopted at a Company and site level.

## 2. SCOPE

This Technical Standard is mandatory and applies to all Vedanta subsidiaries and their operational or managed sites, including new acquisitions, corporate offices and research facilities, and to all new and existing employees and contractor employees. This Standard is applicable to the entire operation lifecycle (including exploration and planning, evaluation, operation and closure).

## 3. DEFINITIONS

Definitions of key terms used in this document are shown in the following table.

Term	Definition
Affected Communities	Local communities directly affected by the new or existing project.
CAO	The Office of the Compliance Advisor/Ombudsman, an independent post that reports directly to the President of the World Bank Group.
Cumulative Effects	Based on the IFC description, cumulative impacts are those that result from the incremental impact of the project when added to other existing, planned and reasonably predictable future projects and developments. Water-related effects include: cumulative quantity (over-abstraction) and cumulative quality (impairment of water bodies) impacts.
ICMM (International Council on Mining and Metals)	The International Council on Mining and Metals (ICMM) was established in 2001 and seeks to drive performance improvement through its members which comprise 20 mining and metals companies as well as 30 national and regional mining associations and global commodity associations.

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Term	Definition
WHO Drinking Water Guidelines	The revised Guidelines for Drinking Water Quality were published by the World Health Organisation (WHO) on 4 <sup>th</sup> July 2011 and are typically used in the absence of any local/national standards for drinking water quality. These guidelines establish the quality standards that should be achieved for water to be classified as drinking water, as well as broader water safety considerations.
IFC (International Finance Corporation)	Member of the World Bank that finances and provides advice to private sector ventures and projects in developing countries.
Lifecycle	The phases of a Vedanta mining project including exploration and planning, evaluation, operation and closure.
Operation(s)	A location or activity that is operated by a Vedanta Company and is part of the Vedanta Group. Locations could include mines, refineries, ports or transportation activities, wind farms, oil and gas development sites, offices including corporate head offices and research and development facilities.
Participatory Water Monitoring	Based on the CAO description, this is a collaborative process of collecting and analysing water data, and communicating the results, in an attempt to identify and solve problems as a partnership between the Vedanta site and its affected communities. It includes a variety of people in all stages of the monitoring process, and incorporates methods and indicators meaningful to the stakeholders concerned.
Stakeholders	Persons or groups that are directly or indirectly affected by a project as well as those that may have interests in a project and/or the ability to influence its outcome, either positively or negatively. This can refer to shareholders, lenders, employees, communities, industry, governments and interested third parties.
Vedanta Company	A subsidiary of Vedanta Group either fully or majority owned that has its own management structure (e.g. Hindustan Zinc Limited, Vedanta Aluminium Limited, Sterlite Industries limited, etc.)
Water Accounting	The systematic collation of the water balance information from each site within each Company to enable the Group Sustainability Committee to measure, record and report aspects of water resources management associated with its operations and activities.
Water Balance	A calculation of the total volume of water inputs (for direct and indirect uses) and outputs (i.e. wastewater) for each Vedanta site.



## Technical Standard – Water Management

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### 4. PROGRAMME REQUIREMENTS

This technical standard has been prepared in order to protect water resources from the impacts that its operations and activities may have on them. It describes mechanisms for identifying, evaluating, managing and protecting water resources that may be impacted by an existing or proposed Vedanta activity or operation.

#### 4.1. General Requirements

- a) The requirements included in this Technical Standard shall be adhered to by all Vedanta Companies as applicable.
- b) Arrangements shall be created, implemented and maintained so that the requirements of applicable local, regional, national legislation are complied with.
- c) Arrangements shall also be implemented to ensure conformance to the requirements of the *IFC Performance Standards*.
- d) The key IFC provisions are summarised as follows:
  - *Performance Standard 1 – Assessment and Management of Social and Environmental Risks and Impacts* – The relevant objectives of this standard are to identify and assess social and environment impacts, both adverse and beneficial, in the project's area of influence; to avoid, or where avoidance is not possible, minimize, mitigate, or compensate for adverse impacts on workers, affected communities, and the environment; to ensure that affected communities are appropriately engaged on issues that could potentially affect them and to promote improved social and environment performance through the effective use of management systems. The key considerations in so far as they relate to this Technical Standard are: the need to undertake a risk and impact assessment; the need for a management programme of mitigation and performance improvement measures; community engagement; monitoring and reporting;
  - *Performance Standard 3 – Pollution Prevention and Abatement* – The relevant objective of this standard is to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. The key considerations in so far as they relate to this Technical Standard are: use of pollution prevention and control technologies and techniques during all stages of the project lifecycle; resource conservation; emergency preparedness and response and existing ambient conditions (of surface and groundwater resources), and

## Technical Standard – Water Management

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- *Performance Standard 6 – Biodiversity Conservation and Sustainable Natural Resource Management* – The relevant objectives of this standard are to protect and conserve biodiversity and to promote sustainable management and use of natural resources through the adoption of practices that integrate conservation needs and development priorities. The key considerations in so far as they relate to this Technical Standard are: natural resources impact assessment; impact management / mitigation in areas of modified, natural and critical habitats; protection, promotion and enhancement of legally protected areas (all of which may comprise water-based habitats); and sustainable management and use of renewable natural resources.

### 4.2. Existing Projects and Operations

All existing Vedanta companies shall create, implement and maintain arrangements for sustainable water management at all locations including but not limited to offices, manufacturing sites, distribution infrastructure, mines, etc.

### 4.3. Water Resources Risk Screening Assessment

- a) All Vedanta Companies shall conduct a basic screening assessment to identify sensitive water resources and aquatic habitats and any known or suspected water resources constraints within and in proximity to each owned/managed operation and facility.
- b) Constraints that shall be considered include (but not limited to):
  - a naturally water stressed environment, with a high prevalence of droughts and water shortages;
  - the presence or planned development of other water intensive industrial and/or agricultural activities, in particular commercial agriculture, agro-processing facilities and power generation and supply;
  - any planned infrastructure in the river basin, such as hydropower schemes, river diversions etc;
  - a highly polluted water environment, e.g. where there are significant and poorly regulated industrial or agricultural activities upstream of the operation; or
  - groundwater resources that may be at risk from induced saline intrusion or other sources of contamination if pumping activities occur.
- c) This screening assessment shall be achieved using for example the World Business Council for Sustainable Development Water Tool (or other internationally recognised proprietary) database as well as by referring to other available sources of information as appropriate such as government management strategies or action plans, media and the internet to determine the need and priority to further examine water constraints, biodiversity attributes in so far as they relate to water and aquatic ecosystem services issues.

## Technical Standard – Water Management

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- d) The outcome of this exercise shall be a prioritised list of all sites on the basis of risk. Sites situated in an area of high water resources value and/or with vulnerable aquatic ecosystem services, and sites located outside an area of high water resources value but which impact such an area will be classified as high risk. Medium and low risk sites shall be classified on the basis of distance from such areas, and extent of impact.

### 4.3.1. Water Resources Management Plan

- a) On the basis of the assigned priority rating of each site a Water Resources Management Plan (WRMP) shall be prepared and implemented to eliminate, minimize, mitigate and manage impacts on water resources and shall be commensurate with the level of risk.
- b) For operations and facilities that have been identified as high risk, the collection of further information shall be undertaken in order to inform the development of the WRMP.
- c) For high risk operations and facilities, the WRMP shall include provision for the following issues. For medium and low risk facilities the following issues may be included as appropriate on the basis of an assessment of local needs and requirements:
- Withdrawals from sensitive water bodies;
  - Operational activities and arrangements for preventing the discharge of harmful substances into the soil and groundwater;
  - Security of supply and forecasted changes in demand;
  - Planning and preparation for potential climate change impacts that could disrupt or change the availability of water resources;
  - Societal values and conflicting uses in the context of ecosystem services;
  - Affected communities' ownership and access rights to water resources;
  - Impacts on landscape / ecological processes as a result of major long term changes in water use arising from site operations and activities (e.g. impact on habitat function of water catchments due to reduced flow);
  - Transboundary impacts such as water pollution of international surface waters;
  - Cumulative effects and the impacts of mining and minerals processing on operational, local and regional water systems, and
  - Strategies that contribute to the improvement of ambient conditions when the project has the potential to constitute a significant source of emissions in an already degraded area.
- d) The WRMP shall detail the arrangements for the periodic internal and external measurement and reporting (as required) of the impact management activities.



## Technical Standard – Water Management

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- e) The WRMP shall be integrated into the Company, Operation or Project Social and Environmental Management Plan.

### 4.3.2. Legal and Other Requirements

- a) All Vedanta Companies shall identify all relevant local, regional and national legislative requirements on water management and biodiversity conservation that are relevant to each of its owned and/or managed operations and facilities.
- b) Arrangements shall be established to ensure compliance with all such requirements, and to surpass them where practicable.
- c) All applicable international conventions shall be identified and complied with in all jurisdictions in which it operates.
- d) Vedanta shall consider opportunities to protect and enhance water resources and aquatic environments in modified and natural habitats beyond the scope of legal compliance and the requirements of international standards.

### 4.3.3. Provision of Drinking Water and Sanitation

- a) All Vedanta Companies shall ensure that all sites and facilities (including contractor camps; refer to the *Supplier and Contractor Management* Technical Standard TS06) are supplied with a secure supply of drinking water and with adequate sanitation facilities.
- b) Where drinking water is provided by the Company, it shall be treated to conform with WHO and / or national standards, whichever are the more stringent.
- c) In the absence of a municipal sewerage connection alternative infrastructure for sanitary waste disposal shall be established such as piped connection to septic tanks and provisions for appropriate disposal of waste.
- d) Documentation shall be maintained that details the sources of the site's water supply, the drinking water and sanitation network, the quantity and quality of water abstracted for use and the quality of the wastewater discharged by the site.
- e) Arrangements shall be established to maintain the water and sanitation infrastructure.

### 4.3.4. Water Balance

- a) A water balance shall be calculated and maintained by each Company location. This shall consider the following:
  - Identification of the total volume of water withdrawn from any water source (surface waters, groundwater, rainwater, waste water from another company, municipal water);
  - Water withdrawn directly by the Company or through intermediaries such as water utilities;

## Technical Standard – Water Management

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- Volumes used for each different purpose (e.g. drinking water, sanitation, process);
  - Volume of returns to the environment through leakage, treated wastewater discharges, evaporation etc, and
  - Volume of reused / recycled water and as a percentage of the total water used or withdrawn.
- b) The water footprint shall be reviewed on an annual basis and updated as required and reported to the Company head office.
  - c) Each Company shall collate the annual water balances from all its facilities and use these to determine Company-level performance goals and water resources targets for the forthcoming year.
  - d) The water balances collated by each Company or Operation shall be submitted to the Group Sustainability Committee for the purposes of the annual Group management review, performance reporting and continual improvement in accordance with the *Sustainability Data Management* Technical Standard TS21 and the *Management Review and Continual Performance* Management Standard MS14.

### 4.3.5. Water Use Reduction

- a) As part of the annual sustainability performance improvement review, an annual assessment shall be conducted to identify opportunities for minimising the amount of water consumed including direct reduction of freshwater demand by using alternative supplies (such as recycled process water).
- b) Identify and act upon opportunities to upgrade the design of site infrastructure to enhance water conservation measures (such as replacement of old pipe work to reduce leakage) as part of the planned preventative maintenance programme.
- c) Identify and act upon opportunities to assist the local communities to better manage their water consumption (such as through maintenance of storage and distribution infrastructure) such that additional water becomes available for use by the site (referred to as water consumption offsetting).
- d) All Vedanta companies shall identify and implement measures for recycling and reuse of wastewater such as recirculation of process water for cooling or rain water harvesting.
- e) The findings of the assessment shall be incorporated as appropriate into the proposed improvement plan for the forthcoming reporting year in the form of objectives and targets.
- f) For sites that extract water (ground and surface water), measures shall be implemented where possible to promote groundwater recharge in order to counter the impact of water removal and augment supply (referred to as rainwater harvesting).

### 4.3.6. Wastewater Treatment and Discharge

## Technical Standard – Water Management

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- a) All process waste water shall be treated to international best practice standards through the application of best available techniques (BAT) before being discharged to the environment.
- b) Surface water runoff shall be controlled so as to prevent soil erosion, protect water bodies and aquatic biodiversity from impact due to sediment loading and pollutants, and to prevent localised flooding.
- c) Sanitary waste shall be treated in such a manner that it does not present a risk to the environment or to human health.
- d) Prior to discharging any water to the environment, the quality of the water shall be verified to ensure that it meets any applicable legal, corporate and permitting obligations.
- e) A zero discharge philosophy shall be applied at all sites.

### 4.3.7. Emergency Preparedness and Response

- a) Each Vedanta operation and facility shall, on the basis of an assessment of risk, include in its emergency response plan a section designed to prevent, mitigate and control the unplanned or uncontrolled release of waste water into the natural environment.
- b) Each Vedanta operation and facility shall establish the necessary arrangements for ensuring adequate and appropriate training, resources, responsibilities, communication, procedures and other aspects are available to effectively respond to emergency situations.

### 4.3.8. Participatory Monitoring

- a) Arrangements shall be established to facilitate participatory water monitoring with affected communities in order to constructively monitor and manage any conflicting water use issues that may arise during the project lifecycle. Reference shall be made to relevant guidance provided by the CAO.
- b) Arrangements shall be established for the regular reporting to stakeholders on the Company's management of water resources and the progress towards water conservation achievements.
- c) Vedanta companies shall participate in local or regional water catchment planning activities to secure sustainable water resources for Vedanta operations and the activities of other users outside of the organisation.
- d) All engagement with affected communities shall be conducted in line with the *Stakeholder Engagement* Technical Standard TS05 and issues shall be managed in accordance with the *Grievance Mechanisms* Technical Standard TS04.

### 4.3.9. Measuring and Monitoring

- a) Using the GRI Mining and Metals Sector Supplement each Vedanta Company shall monitor performance in managing water resources issues.



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- b) Each Vedanta Company shall develop performance indicators on the basis of corporate and legal requirements and using the following GRI Mining and Metals Performance Indicators:
  - EN8 - Total water withdrawal by source;
  - EN9 - Water sources significantly affected by withdrawal of water, and
  - EN10 - Percentage and total volume of water recycled and reused.
- c) On the basis of the risk classification, each operation or facility shall also establish arrangements for monitoring its performance against the relevant indicators established by the Company.
- d) Every facility shall regularly monitor water flows and compare these against performance targets to manage abstraction and consumption and to identify opportunities to reduce it.
- e) Every operation shall establish and monitor performance against targets for water consumption reduction and for improving the quality of produced waste water. Targets shall be set in accordance with the *Data Management, Performance Monitoring and Reporting* Management Standard MS 10.

### 4.3.10. Knowledge and Awareness

- a) Arrangements shall be implemented to support water resources, aquatic environments, ecosystem services and conservation research efforts carried out by local, regional and national research groups in order to further knowledge and understanding of such attributes in Vedanta's areas of operation.
- b) Mechanisms shall be created and implemented to provide information and raise awareness among employees, customers and suppliers and other stakeholders to enhance knowledge and understanding of water resources, aquatic environments and conservation issues.

## 4.4. New Projects

### 4.4.1. Impact Assessment

- a) For any new project that is planned, an initial assessment shall be undertaken to determine if it will be necessary to undertake a formal international standard Environmental and Social Impact Assessment (ESIA). Reference shall be made to the provisions of local legislative requirements and to the IFC Performance Standard PS1 on the Assessment and Management of Social and Environmental Risks and Impacts.
- b) For projects that require an ESIA the *Conducting ESIs to International Standards* Technical Standard TS08 shall be followed.
- c) For projects that do not fall within the scope of an ESIA, a water resources risk screening assessment shall be undertaken as described in 4.3 and the potential impacts subsequently managed as required in accordance with the provisions of a water resources management plan as described in Section 4.3.1.

## Technical Standard – Water Management

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### 4.4.2. Impact Assessment

- a) The scope of the ESIA will depend on the nature and scale of the project and sensitivities of water resources attributes in the project area but in any case shall include:
  - Desktop study and consultations;
  - Baseline water resources survey;
  - Assessment of ecosystem services;
  - Impact and dependency assessment;
  - Reporting, and
  - A Management Plan.
- b) For all new projects water resource attributes and ecosystem services in the proposed area shall be identified and potential project impacts and dependencies assessed.
- c) Vedanta shall ensure that the Baseline Water Resources Survey establishes a core set of assessment criteria (indicators) which will form the basis of impact analysis and the definition of mitigation and management measures.

### 4.4.3. Water Resources Management Plan

- a) A Water Resources Management Plan (WRMP) shall be prepared that details the actions that are identified during the impact assessment to prevent, minimise and mitigate impact to vulnerable water resources during the project lifecycle.
- b) The WRMP shall include as appropriate those considerations detailed in Section 4.3.1 (for water resources management associated with existing projects) as well as other considerations that arise out of the impact assessment and mitigation planning for the new project.
- c) The WRMP shall also include all items as necessary to ensure conformance with Vedanta's Water Management Policy.
- d) The WRMP shall be integrated into the Social and Environmental Management Plan described in the *Conducting ESIA's to International Standards* Technical Standard TS08.

## 5. ROLES AND RESPONSIBILITIES

Vedanta Resources, subsidiaries, businesses, operations and sites shall ensure that roles and responsibilities for implementing and complying with this Standard are allocated. Key responsibilities shall be included in job descriptions, procedures and/or other appropriate documentation.

## Technical Standard – Water Management

### 6. COMPLIANCE AND PERFORMANCE

Each Vedanta operation shall ensure they comply with the requirements of this standard. Performance against meeting the requirements of this Standard shall be assessed periodically, documented and, where required, reported to Vedanta Group. The assessment of performance shall include setting and reporting on key performance indicators (KPIs) where these have been established at Vedanta Group, Company or local level. The evaluation of performance shall include, as a minimum, confirmation that:

- All existing projects have arrangements in place to ensure safe drinking water and sanitation services are provided at all sites and facilities.
- A water balance is prepared annually by each site and is reported to the Company Head Office.
- A water account is prepared annually by each Company and reported to the Group Sustainability Committee to enable it to fulfil its duties for data reporting and continual improvement.
- Clear, transparent and formal arrangements are implemented and followed for participatory water monitoring and evidence is available to document consultations with affected communities and implementation of actions to address issues and concerns as part of this process.
- Evidence is available to demonstrate the actions taken to reduce and monitor sustainable water management initiatives regarding water consumption reduction, water reuse and recycling, water treatment, and minimum or zero discharges.
- Regular monitoring of company-supplied drinking water and of waste water discharges is conducted to ensure that local/national or international standards are complied with as appropriate, and that any non-conformances are managed appropriately.
- A water resources impact assessment is incorporated into the ESIA conducted for all new projects.

### 7. SUPPORTING INFORMATION

Reference	Description
ICMM (International Council of Mining and Metals)	The ICMM has recently produced and published a good practice guidance document 'Indigenous Peoples and Mining' which whilst it is written for indigenous peoples and therefore may not be relevant to all projects, contains useful guidance and references to cultural heritage. The ICMM has also produced many other best practice documents on a range of health,



## Technical Standard – Water Management

Reference	Description
	safety, environment and community issues relating to mining. <a href="http://www.icmm.com/library">http://www.icmm.com/library</a>
Global Reporting Initiative (GRI)	The Global Reporting Initiative (GRI) is a network-based organization that produced an internationally applicable sustainability reporting and disclosure framework. The GRI periodically updates the framework and also provides sector-specific guidance on its application to environmental, social and governance performance. <a href="http://www.globalreporting.org/Home">http://www.globalreporting.org/Home</a>
IFC Performance Standards Guidance Notes	Provides detailed guidance for adopting and implementing the requirements of the different Performance Standards. <a href="http://www.ifc.org/ifcext/sustainability.nsf/Content/PerformanceStandards">http://www.ifc.org/ifcext/sustainability.nsf/Content/PerformanceStandards</a>
The Office of the Compliance Advisor/Ombudsman (CAO)	An independent post that reports directly to the President of the World Bank Group. The CAO reviews complaints from communities affected by development projects undertaken by the private sector lending and insurance members of the World Bank Group, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). The CAO also offers advice and guidance to IFC and MIGA, and to the World Bank Group President, about improving the social and environmental outcomes of IFC and MIGA projects. The CAO has issued an advisory note on preventing and managing water conflict through participatory water monitoring (see Section 9 below for reference).
World Business Council for Sustainable Development (WBCSD) Water Tool	The WBCSD has created a tool which is freely available online to enable companies and organisations to map their water use and assess risks relative to their global operations and supply chains. <a href="http://www.wbcsd.org/work-program/sector-projects/water/global-water-tool.aspx">http://www.wbcsd.org/work-program/sector-projects/water/global-water-tool.aspx</a>
World Health Organisation (WHO)	WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. <a href="http://www.who.int/en/">http://www.who.int/en/</a>

## Technical Standard – Water Management

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### 8. REVIEW

This Technical Standard shall be periodically audited and reviewed to determine its accuracy and relevance with regard to legislation, education, training and technological changes. In all other circumstances, it shall be reviewed no later than 12 months since the previous review.

### 9. RELATED DOCUMENTATION

A summary of the references and supporting documents relevant to this document is provided in the following table.

Doc. Ref.	Document name
	Vedanta Code of Conduct
POL 07	Water Management
MS 10	Data Management, Performance Monitoring and Reporting
MS 14	Management Review and Continual Performance
TS 04	Grievance Mechanisms
TS 05	Stakeholder Engagement
TS 06	Supplier and Contractor Management
TS 08	Conducting ESIA to International Standards Technical Standard
TS 21	Sustainability Data Management
CAO Advisory Note	Participatory Water Monitoring – A Guide for Preventing and Managing Conflict
GRI version 3	Indicator Protocols Set – Environment - Mining and Metals Sector Supplement

## Energy & Climate Change Policy

### **Purpose**

Vedanta Limited ("Vedanta") is committed to minimizing the impact of climate change on its own business as well as on the environment and society. We aim to collaborate with stakeholders to drive timely, meaningful action on climate change.

This Energy & Climate Change policy shall help us to define, strategize, plan, and implement essential roadmap, towards achieving climate goals. This policy is forward looking and sets an energy and climate vision for businesses across the Vedanta group.

### **Scope**

This policy is applicable to all Vedanta Limited companies, including subsidiaries, joint ventures, and acquisitions, managed sites, licensees, outsourcing partners, corporate offices, and research facilities. This policy is also applicable to all Vedanta Limited employees, contractor employees, business partners, suppliers, and others with whom Vedanta does business.

In addition, this policy is applicable throughout the operational lifecycle of the projects and mines, covering stages from exploration and planning to evaluation, operation, and closure. Furthermore, it extends to upstream and operations, including the distribution, logistics, and sale of products and services up to the customer.

### **Objectives of the Energy & Climate Change Policy**

Vedanta will strive to:

- Adopt and maintain global best practices on climate and energy management and minimizing greenhousegas (GHG) emissions throughout our operations, including:
  - aligning with the overall objectives of the Paris Agreement.
  - measuring energy usage and greenhouse gas emissions (Scope 1&2) across all operations and geographies and maintain year-on-year efforts to reduce energy consumption and GHG emissions.
  - measuring and disclosing greenhouse gases emissions (Scope 3) across the entire value chain-including upstream and downstream emissions.
  - defining energy and GHG reduction roadmap in alignment with Vedanta's commitment to become a net zero carbon business by 2050.
- Conduct risk assessments to understand the impact of climate change on the business under different scenarios and time periods.
- Integrate climate change considerations into our strategic approach, financial planning and analyzing the climate-related risks and opportunities (both physical and transition).
- Adapt and futureproof our facilities to the physical risks of climate change and to achieve an orderly transition to a world in which GHG emissions are constrained.
- Include the adoption of carbon pricing or similar mechanisms into our investment decision-making.
- Promote, engage, and invest in energy consumption reduction projects including energy conservation, energy efficiency, fuel switch and clean energy and maximize benefits from energy by waste recovery.

Foster research and innovation techniques within our operations leading to optimal utilization of resources which continuously improve the efficiency of operations, minimizing energy consumption and resource use. Report GHG emissions, climate trajectory scenario analysis and climate change risk analysis on yearly basis in alignment with internationally recognized protocols (like Taskforce on Climate Financial Disclosure TCFD and CDP) and work closely with other stakeholders to reduce energy consumption and carbon intensity.

- Communicate our approach and achievements actively to stakeholders, and work closely with national and

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Sensitivity: Internal (C3)



global policy makers to encourage effective and equitable abatement policies within the sectors of our operation.

- Support joint efforts by the private and public sectors to reduce the impacts of climate change.
- Collaborate with our employees, wider communities, business partners, customers, and other stakeholders to achieve our commitment to energy and greenhouse gas emission reduction.
- Encourage and influence our business partners including supply chain to adopt energy conservation practices, set energy and climate targets and report on their practices.
- Review the performance against the policy on a periodic basis to ensure management of energy & climate change as per our objectives including the sharing of good practices throughout the organization and stakeholders.

### **Responsibility & Review**

This policy is part of the Vedanta Sustainability Framework, and each Vedanta business shall implement this policy. Group CEO will be accountable for controlling and setting the policy, and the Group Executive Committee are responsible for the full implementation of the policy and associated standards. The Board ESG Committee will review this policy annually and recommend appropriate revisions to the Board as may deem necessary.

Related additional policies: *Environmental Policy, Biodiversity Policy, Water Policy*

Signed by:



Sunil Duggal

Group CEO, Vedanta Limited

Date: 27 July 2023

## Biodiversity Policy

### **Purpose**

Protecting and enhancing biodiversity is an integral part of Vedanta's commitment to sustainable development. We are conscious of the potential impacts and dependencies of our business on the environment in general and on biodiversity. Integrating the need for biodiversity conservation into operational decision-making processes and taking measures to minimize impacts is a commitment across the company with a vision of Nature Positive.

Biodiversity is a complex phenomenon that needs to be identified, understood, and valued from a biological and societal (i.e., in terms of ecosystem services) perspective and the Company is conscious of the potential impacts and dependencies of our business on the environment in general and on biodiversity in particular. This Biodiversity policy shall help us define, strategize, plan, and implement the essential roadmap, guidance, and measurement towards achieving sustainability goals.

This policy is forward looking and sets a vision for businesses across the Vedanta group.

### **Scope**

This policy is applicable to all Vedanta Limited companies, including subsidiaries, joint ventures, and acquisitions, managed sites, licensees, outsourcing partners, corporate offices, and research facilities. This policy is also applicable to all Vedanta Limited employees, contractor employees, business partners, suppliers, and others with whom Vedanta does business.

In addition, this policy is applicable throughout the operational lifecycle of the projects and mines, covering stages from exploration and planning to evaluation, operation, and closure. Furthermore, it extends to activities in our upstream value chain.

### **Objectives of the Biodiversity Policy**

Vedanta will strive to:

- Achieve nature positive impacts to biodiversity values by implementing intense management actions either on site or off site, to compensate for any project impacts to areas recognized nationally or internationally for their high values of threatened, endemic or migratory / congregatory species or unique and threatened ecosystems.
- Comply with, and exceed whenever feasible, the local, regional, and national legislative requirements concerning land management and biodiversity conservation, as well as relevant international agreements, in all jurisdictions where we operate.
- Avoid deforestation and habitat loss in internationally recognized areas such as World Heritage Sites and IUCN Protected Area Management Categories 1a, b and 2.
- Compensate with future reforestation (no net deforestation) by appropriate on or off-site habitat restoration. Achieve No-Net Loss (NNL) at our project operations and ensure that we will operate on the principles of Net Positive Impact (NPI) for critical habitat (when we operate in or near areas declared as biodiversity hotspot areas, ecologically sensitive zones, International Union for the Conservation of Nature IUCN Category I-IV protected areas, nearby world heritage sites & areas having critical habitat and ecosystems). Set targets and objectives to avoid, reduce or mitigate biodiversity and nature-based impacts on people and planet.
- Integrate biodiversity & nature considerations into our strategic approach, financial planning and analyzing the nature-related risks and opportunities throughout the project lifecycle, including decommissioning, closure, and rehabilitation.
- Conduct biodiversity risk assessment and apply the mitigation hierarchy to avoid or minimize biodiversity and nature-based risks.
- Ensure continuous improvements in biodiversity performance through effective management and

implementation of action plans in alignment with the “Nature-Based Solutions” approach.

- Review the performance against the policy on a periodic basis to ensure management of biodiversity as per our objectives including the sharing of good practices throughout the organization and stakeholders.
- Engage with local, national, and global conservation initiatives, conservation experts and organizations. Support joint efforts by the private and public sectors, and foster knowledge, awareness, and participation among relevant stakeholders, including employees, to collectively address biodiversity and nature-related challenges.
- Engage and raise awareness amongst our employees, business partners, supply chain and other stakeholders to enhance their knowledge and understanding of biodiversity and ecosystem management practices.
- Actively encourage value chain partners and suppliers to align with this policy and avoid operational activities near sites containing globally or nationally important biodiversity

### **Responsibility & Review**

This policy is part of the Vedanta Sustainability Framework, and each Vedanta business shall implement this policy. Group CEO will be accountable for controlling and setting the policy, and the Group Executive Committee are responsible for the full implementation of the policy and associated standards. The Board ESG will review this policy annually and recommend appropriate revisions to the Board as may deem necessary.

Signed by:



Sunil Duggal

Group CEO, Vedanta Limited

Date: 27 July 2023



## **CSR REPORT**

***Jan 2023 – March 2024***

At FACOR we strongly believe in the Socio-Economic development of our community through structured CSR interventions. Community Development and sustainability are at the core of everything we do. We have a robust mechanism in place to execute our community development programs for the benefit of the community at large. Our CSR programmes are aligned to Sustainable Development Goals and our vision of “Empowering communities, transforming lives and facilitating nation building through sustainable and inclusive growth.”

### **1. SUPPORT FOR HEALTH AND MEDICAL FACILITIES**

Budget: INR 24,98,711.35/- (Health Camps, Awareness Session, and TB patients)

**i. Health Camps:** FACOR organised 176 Health Camps in the CSR operational area of FACOR. Health camps included free doctor consultation along with distribution of medicines.

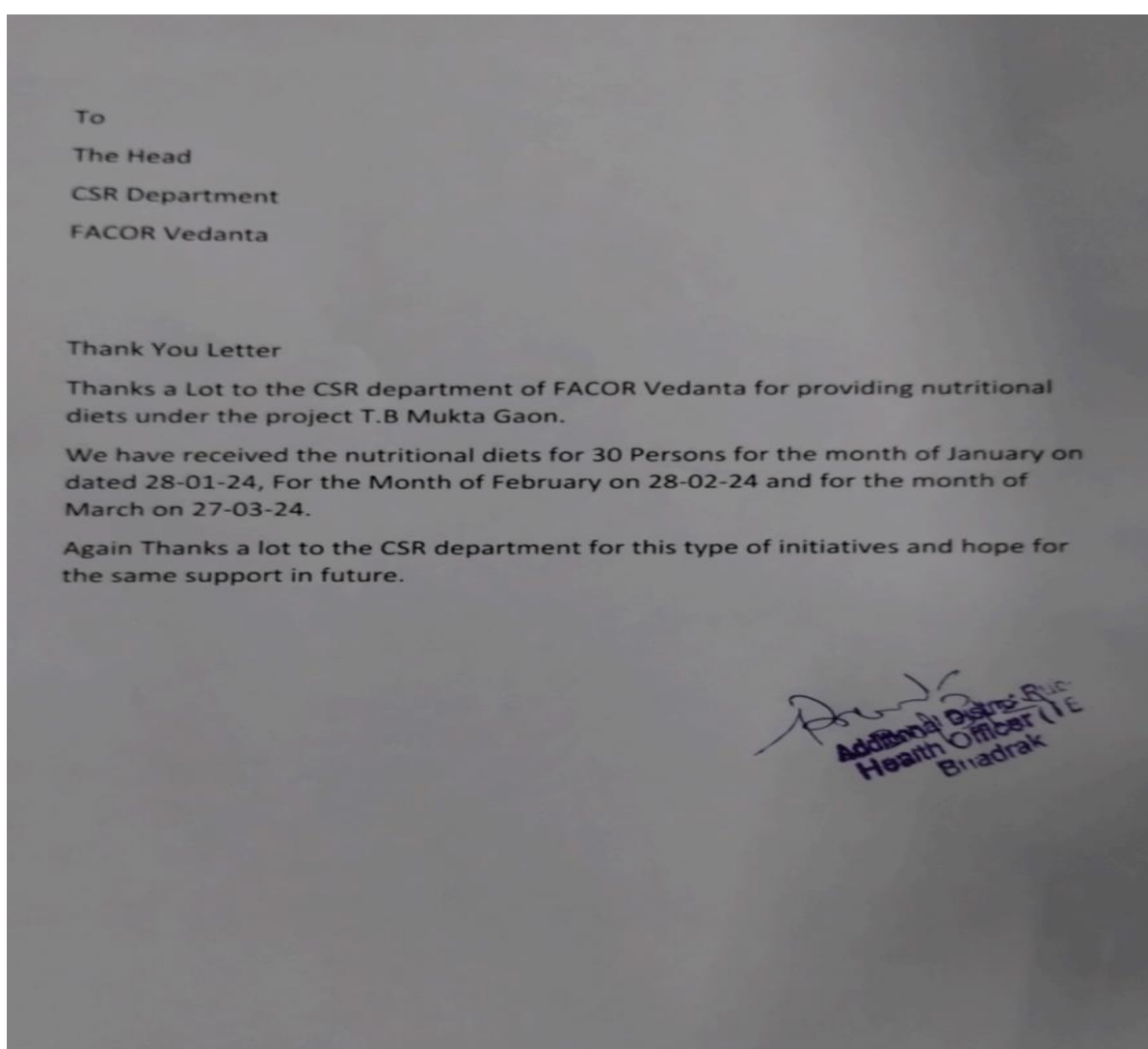




**ii. Awareness sessions:** FACOR CSR team is dedicated to disseminating knowledge about Govt health schemes, preventive and curative health measures to community members through awareness sessions. Our team has conducted sessions on Dengue, Malaria, Tuberculosis, and other disease to spread awareness among the commoners to bring them closer to government health schemes.



**iii. Nutri Kit Support to TB Patient:** Under FACOR CSR initiative, Nutrition kit support has been provided to TB patients in Bhadrak.



**2. Support to Local CHC:** FACOR has installed 01 Ro Waret and 02 Air purifier in Barpada CHC and supported with 10 Steel bench for improving the overall condition of local CHCs under CSR budget.



Budget: INR 2,59,171/-



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**SERVICE REQUEST ACTIVITY REPORT**

THIS IS NOT A BILL. DON'T PAY AGAINST THIS REPORT

Customer Code	STC	SCM	IN/IC/OW
Customer Name	Ranpada CHC	120/254	8/5/14
Address	Ranpada, LP, Bhadrak	Work Details / Customer Remarks	
Email	Installation done,		
Telephone No.	Mobile No.	Customer Signature	Please update your mobile number

**Confirmation of Free Spares / Consumable Replaced** (Service Request / MS / AMC / FOC)

S.L.NO.	Material Code	Material Description	QTY	Customer Signature
1				Please sign against each item replaced
2				Please sign against each item replaced
3				Please sign against each item replaced
4				Please sign against each item replaced
5				Please sign against each item replaced
6				Please sign against each item replaced
7				Please sign against each item replaced
8				Please sign against each item replaced

Technician Signature: P.P. BP Signature: SAP Transaction No:

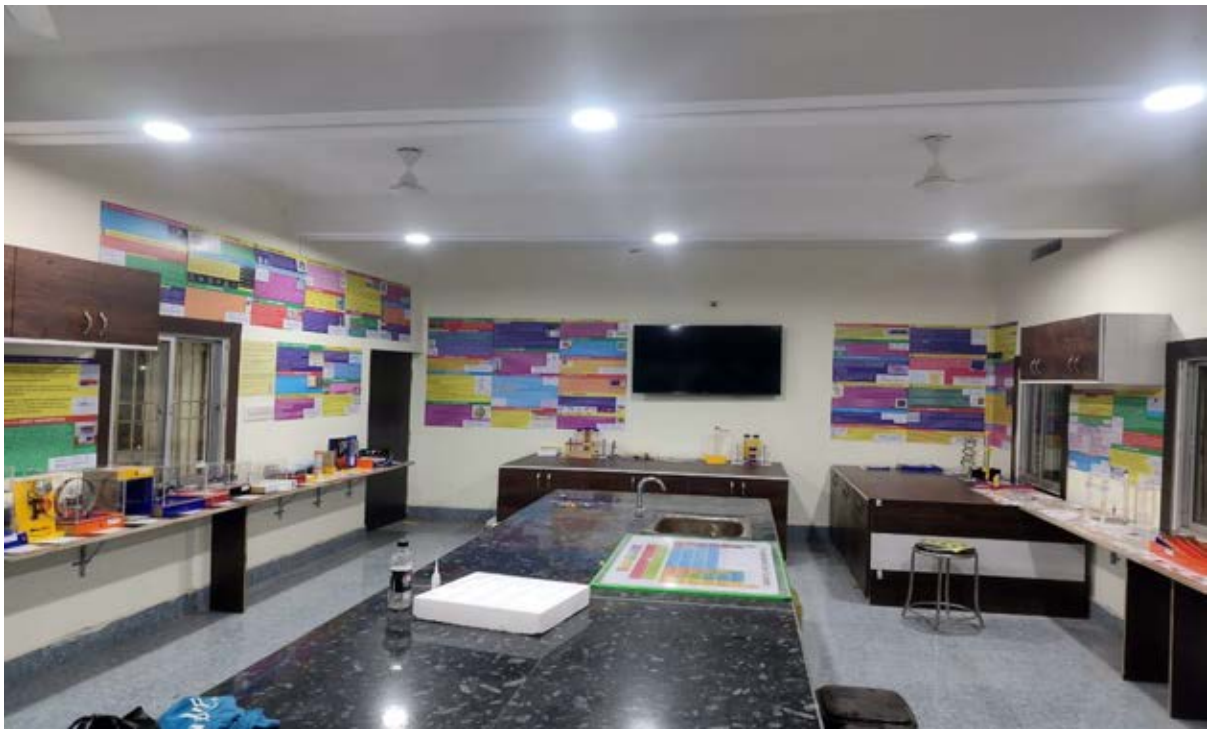
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### 3. Support to Education

**i. Science Lab:** Mini Science lab has been installed in 02 government schools to promote STEM learning among the school students under CSR budget.

Budget: INR 10,06,858.67/-



**ii. Support of RO Water Purifier:** 120 litter RO Water purifier provided to 04 government schools to improve overall school condition under CSR budget.

Budget: INR 461979.39/-



**iii Support to Anganwadi:** Tiles and paint work completed in 19 Anganwadis, Bio-waste dustbin provided to 21 Anganwadi centre, and table chair provided to 23 Anganwadis under CSR budget.

Budget: INR 16,11,822.09/-





### 3. i. Assistance to local SHGs for livelihood

**Support:** 02 microenterprise (Donapattal and Agarbatti) established and supported with raw materials, training and market linkage, training provided to SHG women in bamboo craft including support of materials and tools required, and Support of raw materials, and tools to 05 established SHG microenterprise under the CSR budget.

Budget: INR 13,78,726/-





**ii. Tailoring Skill Centre:** 80 community women given training in tailoring trade along with Jivika kit and certification to enhance their income generation capacity under CSR budget.

Budget: INR 6,45,178/-







**4. Plantation:** 300 trees planted with steel cage in the six-gram panchayat of Bhadrak, and 500 saplings distributed among community members under CSR budget.

Budget: INR 33390/-

