An ISO 9001:2015, ISO 14001:2015,
ISO 45001:2018 and
IATF 16949:2016 Certified Company

AARTI STEELS LIMITED

City Office : Plot No. 18/1B, Sector - 10, CDA
Cuttack - 753 014, (Odisha) India
Phone : +91 - 671 - 7161000, 2309285
Fax : +91 - 671 - 7161150, 2309407
E-mail : cuttack@aartisteelsltd.com

Ref: ASL/EC-2005/Env./ 31st May,2024

To,
The APCCF(Central),
Government of India, Ministry of Environment & Forests,
Eastern Regional Office,A/3, Chandrasekharpur,
Bhubaneswar – 751023, Fax: 0674-2302432.

Subject: Submission of half-yearly Compliance report on the stipulated environmental clearance in respect of "0.5 MTPA Integrated Steel Plant and 50 MW CPP by Aarti Steels Limited at village Ghantikhal in Dist: Cuttack in Odisha-regarding".

Reference:
Environmental Clearance letter no.J.11011/158/2004-IAII (I) dated 16.02.2005.

Respected Sir,

We are herewith submitting the six-monthly compliance report on the status of the implementation of the conditions stipulated in environmental clearance awarded to us vide MoEF File No: **J.11011/158/2004-IAII (I) dated 16.02.2005** in respect of Integrated Steel Plant, Cuttack, Odisha of M/s Aarti Steels Limited. for the period from October-2023 to March-2024.

With reference to above, we are herewith submitting the six-monthly compliance report along with annexures in soft & hard copy.

Thanking you,

For Aarti Steels Limited,

31/5/2024

G.Panigrahi
(Factory Manager)

Encl: As above

Copy to: Copy to: The Director,
IA Division (Industry),
Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan,
Jor Bagh Road,Aliganj,,New Delhi-110003

:The Regional Director,
The Central Pollution Control Board,

An ISO 9001:2015, ISO 14001:2015,
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Zonal Office, TheSouthernd Conclave,
Block 502, 5th and 6th Floors, 1582 Rajdanga Main Road,
Kolkata, West Bengal 700107

: The Regional Officer,
Regional Office, State Pollution Control Board,
586, Suryavihar, Link Road, Cuttack-753012 (Odisha),
Fax: 0671-2335478

-for favour of kind information and doing the needful please.

Works : Ghantikhal, P.O. : Mahakalabasta, Via : Athagarh, Dist. : **Cuttack** - 754029 (Odisha) - India
Phone : +91-671-7161000, Fax : +91-671-7161148, 7161150
Regd. Office/H.O. : G.T. Road, Miler Ganj, **Ludhiana** - 141003 (Punjab), **India, Ph** : +91-161-3006100,
Fax : +91-161-3006150, **E-mail** : info@aartisteelsltd.com

Half-Yearly Compliance Report

on

Environmental Clearance Conditions

(MoEF File no: J.11011/158/2004-IAII (I) dated 16.02.2005)

Period: Oct'23 to Mar'24

Submitted by:

AARTI STEELS LIMITED,

At-Ghantikhal, District: Cuttack,
Odisha.

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Six Monthly Compliance Report to the Terms of Conditions of Environmental Clearance granted in favour of Integrated Steel Plant, Cuttack of M/s. Aarti Steels Limited for Oct'23 to Mar'24

Sl. No.	Specific Conditions	Compliance Status (Oct'23 to Mar'24)
A (i)	The gaseous emissions from various process units should conform to the load/mass-based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	**Complied** The gaseous emissions(Particulate Matter) from various process units i.e. stack attached to AFBC Boiler, CFBC Boiler, WHR Boilers, DRI units, SMS unit, Rolling Mill & Ferro Alloys unit are being monitored regularly(stack monitoring reports are enclosed for reference).It can be observed from the reports that the units mentioned above confirm to the concentration based standards notified by the Ministry i.e. 150 mg/Nm^3.We would like to inform that as per the O.S.P.C.B. consent conditions we are maintaining the particulate emission from the above mentioned process units below 100 mg/Nm^3 except thermal power plants(AFBC & CFBC) for which prescribed standard is 50mg/Nm3 which can be referred from the enclosed stack monitoring reports. However, Mass/Load based standard notified by the ministry for integrated steel plant is not applicable in our case, as we do not have Coke Oven plant right now. Hence, we request you to recommend to waive out this specific condition for our case.
	At no time the emission level should go beyond the prescribed standards.	At no time the emission level goes beyond the prescribed standards as the installed pollution control devices i.e. ESPs & Bag Filters are designed to ensure emission level below the prescribed standards.
	In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	In the event of failure of any pollution control system adopted by the unit, the pollution control system is being rectified to achieve the desired efficiency first and then only we are restarting the respective unit.
(ii)	There should be no discharge of process effluent. As reflected in the EIA/EMP report, the waste generation of 456m^3/d (384m^3/d of process and 72m^3/d of domestic effluent) from the various sources will be generated. The company shall achieve zero discharge by use of treated effluent in the process. The blow down from the cooling tower, coolers and RO plant shall be utilized for ash slurry after neutralization and overflow from ash slurry shall be recycled.	**Complied** We are not discharging any process effluent (Water Balance diagram is enclosed for reference as **(Annexure-II).** The detailed water management carried out in all the process units is furnished below. Our entire process unit is adhering to Zero discharge concept by adopting water reuse. **- POWER PLANT**: Full utilization of Blow down and waste water for slurry making thereby optimizing the water requirement. We are not discharging any process effluent. The blow down water from cooling tower, Boiler, coolers & RO plant after treatment in neutralization pit is collected in waste water sump and the same is reused for slurry making. Overflow decanted water from ash slurry is collected in waste water sump and recycled. Surface run-off/spillage/plant washing water from power plant are being recycled through ESP dust handling system. Thus, the company achieves zero discharge by using treated effluent in the process

		-COAL WASHERY: We are not discharging water from the Coal Washery. The entire floor cleaning materials of the Coal Washery is collected in the ground floor sump in the form of slurry. The slurry is pumped back in the prime reject screen from where coal & magnetite is separated. Thus we are adopting closed circuit system. **SPONGE IRON PLANT**: Sponge Iron unit utilizes water only for cooling purpose. Hot water generated from the rotary cooler get 100% recycled onto cooling process through cooling tower. Surface run-off/spillage/plant washing water from DRI plant are being recycled through bag filter dust handling system. **SMS:** The unit has been provided with cooling cum re-cycle arrangements for the cooling waste water of EAF as well LRFS, settling tank & pressure sand filters are provided in the recycling arrangement meant for the cooling wastewater of billet caster. The effluent is confined within the system hence discharge from the SMS is not envisaged. **FAP:** The unit has provided with recycling arrangements for the cooling waste water of SAF & surface run-off/effluent of Jigging & briquetting facility. Thus the company achieves zero discharge by using treated effluent in the process. Thus the company achieves zero discharge by using treated effluent in the process. **Rolling Mill:** The unit has been provided with cooling cum re-cycle arrangements for the cooling waste water of Rolling Mill, settling tank & pressure sand filters are provided in the recycling arrangement meant for the cooling waste water of the mill. The effluent is confined within the system hence discharge from the mill is not envisaged.
	There shall be no discharge of water from the Coal Washery and company shall adopt closed circuit system. The domestic waste water after treatment in STP should be used for green belt development.	We are not discharging water from the Coal Washery. The entire floor cleaning materials of the Coal Washery is collected in the ground floor sump in the form of slurry. The slurry is pumped back in the prime reject screen from where coal & magnetite is separated. Thus, we are adopting closed circuit system. Domestic effluent of Factory premises and colony were discharged to individual soak pits via septic tanks. However, as part of water Conservation measures we have already installed STPs at colonies, rolling mill, canteen & office complex. The domestic waste water after treatment in STP are being used for dust suppression/green belt development.
(iii)	In plant control measures for checking fugitive emission from spillage of raw materials handling should be provided.	**Complied** Fugitive emission generation points like various stock house, material transfer and junction points, product hoppers have been provided with appropriate suction device connected to

		bag filter. Dust suppression system for raw material handling area has already been provided. All transfer points of belt conveyor have been provided with spray nozzles for suppressing the dust. All conveyors, transfer points etc has been provided with enclosures. Water spraying arrangement has been provided in coal yard, iron yard, truck tippler. We have already installed arm sprinklers for Coal & Iron Stock Yard. In addition to above, -Regular water Spraying & cleaning is being practiced on the internal roads. All major internal roads of approx.6.7 KM length have already been blacktopped. -We have installed arm sprinklers for dust suppression at Coal & Iron Yard, Coal Washery area for dust suppression. -We have provided rotating sprinkler system in DRI unit, Iron Ore Crushing unit for dust suppression. -Water Spraying arrangement using 3x12 KL tanker is being made during non-monsoon period for Dust Suppression along the internal roads, Coal Stack yard, Railway Siding area and other areas for effective dust control. Also manual water spraying arrangement using water hose has been made for dust control. -We have already installed rotating sprinklers in FAP unit. -Adequate dust handling system at the hoppers of CFBC (ESP), AFBC ESP, WHRB ESPs & DRI Bag Filters has already been installed & operating satisfactorily. Collected dust/ash in silos is being disposed off to cement plants/abondoned quarry pits. - The solid waste generated is being suitably disposed off within the premises without creating any dust nuisance or environmental contamination. -Material transportation through trucks, tippers etc is being carried out in covered condition to avoid spillages and dust emission. However, in order to improve the AAQ in and around our plant premises, further, we have installed additional two nos of Bag Filters (Cap:85000m3/hr & 33,200 m3/hr) for Capacity enhancement of existing bag filters of 2x500 TPD DRI Kiln as per recommendation of M/s IIT, Kharagpur to control fugitive emission. Also, we have installed Dust Extraction system (DES) connected to bag filter for secondary emission control system connected to Bag Filter to control fugitive emission from SMS during charging and the system is working satisfactorily.

	The project authorities shall ensure the control of secondary fugitive emissions from the electric arc furnace/induction furnace during charging of scrap and tapping by provision of canopy hood over the furnaces and undertaking engineering modifications as has been done in the existing unit at Ludhiana. Fugitive emissions from continuous casting of molten metal into various products shall be controlled by installation of adequate fume extraction system. Further specific measures like provision of dedusting system, bag filters; water-spraying system to suppress the dust at transfer points shall be taken. Data on fugitive emissions should be regularly monitored and records maintained.	**Complied** Swiveling canopy hood over the induction furnace was provided. The furnace gas was cooled by the provision of dilution air addition in duct and is being cleaned through bag filter and is discharged to atmosphere through a stack of height of 35 meter at a temperature of 100^{0}C and at a particulate matter concentration below 100mg/Nm3. However, now company has opted steel making through DR-EAF route in place of DR-IF route and hence induction furnaces are not in operation now and has been dismantled since May,2009. We have installed Dust Extraction system (DES) connected to bag filter for secondary emission control system connected to Bag Filter to control fugitive emission from SMS plant during charging and the fumes after treatment in bag filter is being discharged to atmosphere through a stack height of 35 meter and at a particulate matter concentration below 100mg/Nm3 Fumes coming out from EAF at around 1200 ^{0}C is diluted and cooled in water cooled duct, gas cooler & mixing chamber to 120^{0}C before entry to baghouse for cleaning. Swiveling canopy hood over the ladle refining furnaces (2 sets) has been provided. The furnace gas is passed through mixing chamber. The fumes of EAF & LRFs after passing through common mixing chamber at a temp. of about 120 ^{0}C is cleaned in a common bag filter & discharged to atmosphere through a common stack of height of 40 meter and at a particulate matter concentration below 100 mg/Nm3. Data on fugitive emission monitoring is enclosed at **(Annexure-III)** for reference.
(iv)	The company shall use the heat recovered from the DRI plant in waste heat recovery boilers. The particular emissions from the DRI plant and waste heat recovery boiler shall be controlled by installation of ESP and particulate emissions shall not exceed 100 mg /Nm^3. Further, the company should install dust catchers and gas-cleaning plant for blast furnace top gas for subsequent use in stove heating, re-heating furnace and ladle heating etc. The flue gas should be discharged through stack of appropriate height.	**Complied** 2x10MW Waste heat recovery boilers have been installed for recovering sensible heat of waste gas coming out of 2x500 TPD DRI kilns at around 950-1000 ^{0}C with an inlet dust load of 2x30g/Nm3. Two no ESP (one per each boiler) has been installed to control the particulate emission below 100 mg/Nm3 & brings the flue gas temperature down to 180^o C temperature and finally the flue gas is directed through a chimney of appropriate height to atmosphere. Shall be Complied along with the installation of blast furnace.
(v)	Pressure drop measuring system across the bag filters should be installed. Particulate matter emissions should be measured hourly besides continuous monitoring.	**Complied** Pressure drop measuring system across the bag filters has already been installed.As per OSPCB direction, we have already installed 4 nos online continuous ambient air quality monitoring stations (MOEF approved methodology & USEPA approved equipment) for measuring the parameters such as PM_{10},$PM_{2.5}$,SO_2,NOx,CO and online continuous stack

		emission monitoring system for all power plant ESP stacks for measuring the parameters such as PM,SO2,NOx & GCP(bag filter) stacks for measuring the parameters such as PM. Further, we have installed RT-DAS for AAQ and Stacks & uploaded real time data to the OSPCB & CPCB server through M/s Phoenix Robotics, Rourkela & M/s ENVEA India Private Limited, Thane respectively. For remaining parameters & for on line system calibration purpose we are carrying out Env. monitoring & Analysis through **M/s Mitra S.K.Private Limited**(NABL & MoEF authorized laboratory & OSPCB empaneled consultant). Monitoring Reports attached as **(Annexure-IV).**
(vi)	Proper acoustic enclosures should be installed to control noise load from the DG sets as per EPA standards.	**Complied** DG set has been housed in enclosed room. The noise load from DG set is within the prescribed norm as per EPA standard of 85dB (A). Also the persons working are not being affected due to the noise load of DG sets as it runs only in case of power failure for which persons are exposed to the DG set for very short duration with ear muff.
(vii)	Company should keep proper housekeeping within the plant premises.	**Complied** Proper House Keeping with in the plant premises is being carried out. Continuous efforts are being made to improve it further. Inspection for improvement in House Keeping is being done. Dedicated team has been constituted in all the units to maintain proper house keeping.
(viii)	The company shall prepare time bound action plan for solid waste management and submit to the Ministry within three months.	**Complied** We have taken the following measures to reduce solid waste generation, its proper utilization and disposal: Adequate pneumatic dust handling system at the hoppers of CFBC (ESP), AFBC (ESP), WHRB (ESPs) & DRI Bag Filters has already been installed & operating satisfactorily. -Installed adequate pneumatic dust collection system at bag filter attached to EAF & LRF followed by pug mill. -Collected dust from FAP Bag Filter is being utilized for Briquette making. -Dust & Solid waste removal being carried out on regular basis by using loader, tractor/tipper etc. - The solid waste generated is being suitably disposed off within the premises without creating any dust nuisance or environmental contamination. In addition to above, we have taken the following measures to further reduce solid waste generation, its proper utilization and disposal:

		-Constructed a new coal screening building at a cost of approx. 3 Crores for screening of coal fines of 4 mm and routing the same to boiler without passing through washery. As a result, waste fines generated in the washery has been reduced from 12% to 3% (approx.) -Middlings and rejects of coal washery are being used as fuel in boiler for generation of steam. Char generated is being utilized in AFBC & CFBC power plant to the extent possible. The utilization will be more if CFBC plant will be in continuous operation. The kiln accretion is being dumped in allocated solid waste disposal area of our plant.DM resin from process is being disposed-off in impervious lined pit with cover. Used oil is being sold to regd. Recyclers/re-refiners only. Constructed used oil storage shed with concrete platform for storage of used oil (a hazardous waste). Constructed bio-medical waste disposal pit for disposal of our First Aid Centre bio-medical waste. Also provided organic waste converter for conversion of canteen waste into fertilizer. The same is being utilized in green belt development. -Utilizing -1 mm microfines of coal in our CFBC Boiler. -Installed briquette plant for briquette making utilizing bag filter chrome dust. -DRI Bag filter dust is being utilized in Kiln firing to the extent possible. -Installed Jigging plant for recovery of ferro alloys from its slag. Utilizing H.C. Ferro Chrome Slag as replacement aggregates for non-critical construction jobs since Sept., 2011 to the maximum and the rest is being utilized for land filling/road making etc.to the maximum extent inside our plant premises & balance is being dumped on designated dump site inside the factory premises. Solid waste Management Report attached as **Annexure-V.** **<u>Infrastructure & Mechanism</u>** The allocated solid waste area is situated at considerable distance from operational /working zone and a green belt already exists around it to prevent propagation of air borne dust from the dumping site. Dust & solid waste removal is being carried out on regular basis by using Pay Loader, Tractor, Tipper, JCB, Hyva etc. and is being disposed off in the allocated area following progressive solid wastes disposal practice. Leveling and compressing is being done from time to time with dozer to create more space for fresh solid wastes. Water spraying arrangement using tanker has been made periodically for Dust Suppression at the designated disposal site. Solid wastes generated are being immediately shifted to designated disposal site to prevent air and water pollution. We are not shifting/transporting /disposing solid wastes from our premises in any public place.

		FLY ASH MGMT We have achieved 100% utilization during 2023-24 by supplying to Brick Plants, Cement Plant & land filling. Flyash utilization report attached as **Annexure-VI**.
(ix)	A green belt shall be developed in an area of 100 ha. of plant area as per the CPCB guidelines.	**Complied** Aarti Steels Limited has undertaken a laudable venture to turn this rocky surface to a beautiful landscape full of trees and greenery. Up till now over 93528 nos of trees have been planted in planned way to cover the sprawling factory premises for ecological balance covering an area of 38.97 Ha @ 2400 nos of trees per Ha . Out of 283.4 Ha of our total plant area approx. 71.5 Ha with 171600 trees is already covered under thick plantation since beginning of the project. We are also taking the maintenance of these existing plantations. Hence out of 283.4 Ha, total 111.5 Ha (39.4%) is already covered under plantation and only 31.7 Ha area is available for existing plant and upcoming project. However, plantation in vacant areas has already been undertaken. The non covered areas are being planted in phased manner.As per OSPCB direction we have planted 1250 nos of saplings in near by villages in 2014 and distributed around 45000 nos sapling in periphery villages in 2015.Also,ASL distributed 25000 nos of saplings in periphery villages in July 2016.Green belt report is enclosed vide **Annexure-VII**.
(x)	The company should undertake rainwater-harvesting measures to harvest the rainwater for utilization in the lean season as well as to recharge the ground water table.	**Complied** In consultation with IIT, Kharagpur, we have already constructed surface run-off rain water harvesting pit of size (83mx73mx5m) for surface run off & rain water storage. Installation of Pumps, Pipelines etc for transporting the stored water to raw water reservoir for recycling has been completed in July-2012 and the system is operating satisfactorily.
(xi)	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	**Complied** Occupational Health Surveillance of the workers is being done once in a year and records are maintained as per the Factories Act.
(xii)	Recommendations made in the CREP should be implemented.	**Complied** The CREP recommendation compliance/action plan report is enclosed vide (**Annexure-VIII**).

Sl. No.	**General Conditions**	**Compliance Status (Oct'23 to Mar'24)**
B (i)	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board and the State Government.	Accepted.

	Ministry of Environment and Forests.	
(iii)	At least four ambient air quality-monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO2 and NOx are anticipated in consultation with the State Pollution Control Board / Central Pollution Control Board once in six months. Data on ambient air quality and stack emission should be submitted to this ministry including its regional office at Bhubaneswar and the SPCB/CPCB once in six months.	**Complied** Four on-line ambient air quality-monitoring stations has already been established in downward direction as well as where maximum ground level concentration of PM_{10}, $PM_{2.5}$, SO2 and NOx are anticipated in consultation with the Odisha State Pollution Control Board. Data on ambient air quality monitored for the parameters PM_{10}, $PM_{2.5}$, SO2 and NOx, CO and Data on Stack air quality monitored for the parameters PM, SO2, NOx, temperature and velocity for running plants is being submitted once in six months.
(iv)	Industrial waste water should be properly collected treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater should be utilized for plantation purpose.	**Complied** Since the Industrial waste water is not being discharged outside and is being utilized inside our plant for slurry making and plantation purpose as detailed above in point no.(ii) of specific conditions, hence the standards prescribed under GSR 422(E) dated 19th May,1993 and 31st December,1993 or as amended from time to time is not applicable to our case.
(v)	The overall noise levels in and around the plant area should 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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time)	**Complied** The overall noise levels in and around the plant area is being kept well within the prescribed standards (85 dBA) by providing adequate noise control measures including acoustic hoods, silencers, enclosures as applicable etc. on all sources of noise generation. The overall noise levels in and around the plant area is being monitored once in a month The noise monitoring reports are enclosed for reference which shows that the noise level is well within the standards of 85dB (A) for noise generating sources also it can be noted from the report that the ambient noise levels also conform to the standards prescribed in EPA Rules, 1989 viz.75dB (A)(day time) and 70 dB(A) (night time). Noise monitoring report attached as **Annexure-IX.**
(vi)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etqc.	**Complied** All the environment protection measures and safeguards recommended in the EIA/EMP report are being complied in a phased manner. Social infrastructure and peripheral development work report done so far has been attached vide **Annexure-X**. Further regarding health care- regular health checkup of local people of Dhurusia, Mahakalabasta, Ghantikhal & Kakhadi villages are being carried out by our company Doctor & Pharmacist using mobile health van.

(vii)	The project authorities shall earmark an amount of Rs. 40 Crores (as indicated in question no. XIX (b) of the questionnaire submitted to the Ministry to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	**Complied** Please refer Annexure-**XI** for financial provision of 40 Crores for the implementation of the EMP. We abide that the funds so provided shall not be diverted for any other purpose. Expenditure Incurred on Environmental Protection Measures till 31.03.2024 by Aarti Steels Limited, Ghantikhal is enclosed vide **Annexure-XII.**
(viii)	The Regional Office of this Ministry at Bhubaneswar/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.	**Complied** The stipulated conditions are being monitored by the Regional Office of the Ministry at Bhubaneswar/Central Pollution Control Board/State Pollution Control Board. A six-monthly compliance report and the monitored data along with statistical interpretation are being submitted to them regularly.
(ix)	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/Committee any may also be seen at Website of the Ministry of Environment and Forests at http:envfor.nic.in. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.	**Complied** Already Complied (copy of the advertisement is enclosed as annexure-**XIII** for reference).
(x)	The Project Authorities should 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.	Date of financial closure of the project: March, 2004. Date of Final approval of the project: February,2005 Date of commencing the land development work: Sept., 2004.
(xi)	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Accepted.
(xii)	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.	Accepted.
(xiii)	The above conditions will be enforced, inter-alia under the provisions of the water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Accepted.

G. Panigrahi
(Factory Manager)

Aarti Steels Limited

Annexure-I

PHASE-WISE DEVELOPMENT OF PROJECT AND PROGRESS ON THE CONSTRUCTION OF THE PROJECT

	Item	Capacity	Status	Target
Product Portfolio (proposed capacities)	**Phase-1A**		All the facilities Are completed and in operation.	
	Coal Washery	1.0 MTPA		
	Sponge Iron Kiln-1	500 TPD - 1 No.		
	Captive Power plant	40 MW - 1 No.		
	Ladle Refining Furnace	26 T - 2 Nos.		
	Billet Caster	2 Strand - 7/14 radius - 1 No		
	2 x 9 MVA Ferro-Alloys Plant	25000 TPA		
	Phase-1B			
	Electric Arc Furnace-1, V.D.	35 Ton		
	Sponge Iron Kiln-2 & WHRB-2	500 TPD & 10 MW		
	Electric Arc Furnace-2	35 Ton	Yet to be started	By March,2025
	Phase-II		Yet to be started	
	Mini Blast Furnace	350 M3		By March,2025
	Bloom Caster	2 Strand - 1 No.		By March,2025
	Billet Caster	2 Strand - 1 No.		By March,2025
	AOD	35 T - 1 No.		By March,2025
	LRF	35 T - 1 No.		By March,2025
	Bar & Rod Mill	500000 T/Yr.		200000 TPY installed. Balance 3,00,000 TPA by March,2025
	Wagon Tippler			By March,2025
	Wire Drawing Unit			By March,2025

Annexure - II

BREAK UP OF QUANTITIES OF MAKE UP WATER REQUIREMENT IN DIFFERENT HEADS AT FULL OPERATING CAPACITY.

S.N.	UNIT	CONSUMPTION
1	Manufacturing Process	89 m³/hr
2	As Wash water	43 m³/hr
3	As cooling water	560 m³/hr
4	Domestic	2 m³/hr
5	Agriculture	Nil
6	Other Use (Green belt, Fire Service, Other)	6 m³/hr
	Total	700 m³/hr

M/s. Aarti Steels Limited
AT- [illegible]
P.O. [illegible]
Via- [illegible] Cuttack

M/s. Aarti Steels Limited
[illegible]
P.O. [illegible]
Via- [illegible] Cuttack

Annexure- III

Mitra S. K. Private Limited
Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN : U51909WB1956PTC023037]

T : (0674) 2360917, 9777450189
F : (0674) 2362918

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/208
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00870
Sample Description : Fugitive Air

Analysis Result of Fugitive Air

Sl. No	Sampling Location	Date of Sampling	Suspended Particulate Matter (SPM) in $\mu g/m^3$
1.	SMS Area	05.12.2023	1241
2.	CFBC Area	05.12.2023	1570

Note-1.(Standard as per Environment (protection) (4th amendment) Rules-2008 by MoEF-2000 μ g/m3, at adistance of 10mtrs from the source.)

Report Prepared by:

For Mitra S. K. Private Limited

Authorized Signatory

MITRA S. K. PRIVATE LIMITED BBSR

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN : U51909WB1956PTC023037]

T : (0674) 2360917, 9777450189
F : (0674) 2362918

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/510
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/01052
Sample Description : Fugitive Air

Analysis Result of Fugitive Air

Sl. No	Sampling Location	Date of Sampling	Suspended Particulate Matter (SPM) in $\mu g/m^3$
1.	Char Circuit	14.11.2023	1817
2.	AFBC Boiler Area	14.11.2023	1360
3.	DRI Separation Area	14.11.2023	1923
4.	DRI Bagging Area	14.11.2023	1706

Note-1.(Standard as per Environment (protection) (4th amendment) Rules-2008 by MoEF-2000 μ g/m3, at adistance of 10mtrs from the source.)

Report Prepared by:

M/S. MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited
Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN U51909WB1956PTC023037]

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MSK
TESTING • INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/508
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00700
Sample Description : Fugitive Air

Analysis Result of Fugitive Air

Sl. No	Sampling Location	Date of Sampling	Suspended Particulate Matter (SPM) in µg/m^3
1.	Raw Material Feeder	05.10.2023	1149
2.	Iron Ore Crusher	05.10.2023	1322
3.	CFBC Boiler Area	05.10.2023	1085
4.	Coal Storage	05.10.2023	1217
5.	RMHS Transfer Area	05.10.2023	1360
6.	DRI Day Bin	05.10.2023	1123
7.	CDA Transfer Point	05.10.2023	1506

Note-1.(Standard as per Environment (protection) (4th amendment) Rules-2008 by MoEF-2000µ g/m3, at adistance of 10mtrs from the source.)

Report Prepared by:

For Mitra S. K. Private Limited

MITRA S.K. PRIVATE LIMITED BBSR

Authorized Signatory

Annexure - IV

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/513
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00650
Sample Description : Flue Gas Monitoring
Date of Sampling : 22.01.2024
Time of Sampling : 04:22 PM

ANALYSIS RESULT

A .	**General information about stack :**			
1.	Stack connected to	CFBC		
2 .	Emission due to	Burning of Coal		
3 .	Material of construction of stack	M.S.		
4 .	Shape of Stack	Circular		
5 .	Whether stack is provided with permanent platform & ladder	Yes		
B .	**Physical characteristics of stack :**			
1.	Height of the Stack from Ground level	100 m		
2.	Diameter of the stack at sampling point	2.9 x 2.35 m		
3.	Height of the Sampling Point from Ground level	5 m(approx)		
4.	Area of stack	6.815 m^2		
C.	**Analysis/Characteristic of stack:**			
1.	Fuel used : Coal	2. Fuel Consumption : NA		
D .	**Results of sampling & analysis of gaseous emission**	**Result**	**Prescribed standard as per CTO**	**Method**
1.	Temperature of Emission (°C)	127		EPA Part 2
2.	Barometric pressure (mm of Hg)	750		EPA Part 2
3.	Velocity of gas (m/sec.)	9.12		EPA Part 2
4.	Quantity of Gas Flow (Nm^3/hr)	200128		EPA Part 2
5.	Concentration of Carbon Dioxide (% v/v)	5.1		IS 13270:1992
6.	Concentration of Oxygen (% v/v)	15.0		IS 13270:1992
7.	Concentration of Carbon Monoxide (% v/v)	<0.2	1 %	IS 13270:1992
8.	Concentration of Mercury (mg/Nm3)	0.012	0.03	IS 13270:1992,Reaf:2009
9.	Concentration of Sulphur Dioxide (mg/Nm3)	456.8	600	USEPA Part-6-25/09/1996
10.	Concentration of Nitrogen Oxides (mg/Nm3)	298.4	450	USEPA Part-7-12/03/1996
11.	Concentration of Particulate Matters (mg/Nm^3)	48.4	50	USEPA Part-5-16/08/1996
E .	**Pollution control device** Details of pollution control devices attached with the stack : ESP			
F.	**Remarks** : Nil			

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MSK TESTING • INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/507
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/00508
Sample Description : Flue Gas Monitoring
Date of Sampling : 08.02.2024
Time of Sampling : 04:12 PM

ANALYSIS RESULT

A .	**General information about stack :**			
1.	Stack connected to	FAP 1x18 MVA		
2 .	Emission due to	Burning of Coke, Briquette & Quartz		
3 .	Material of construction of stack	M.S		
4 .	Shape of Stack	Circular		
5 .	Whether stack is provided with permanent platform & ladder	Yes		
B .	**Physical characteristics of stack :**			
1.	Diameter of the stack at sampling point	2.5 m		
2.	Area of stack	4.9107 m^2		
C.	**Analysis/Characteristic of stack:**			
1.	Fuel used : Coke, Briquette & Quartz	2. Fuel Consumption : NA		
D .	**Results of sampling & analysis of gaseous emission**	**Result**	**Prescribed standard as per CTO**	**Method**
1.	Temperature of Emission (°C)	76		IS 11255 (Part-III),2008RA
2.	Barometric pressure (mm of Hg)	759		Lab Method
3.	Velocity of gas (m/sec.)	10.23		IS 11255 (Part-III),2008RA
4.	Quantity of Gas Flow (Nm^3/hr)	152578		IS 11255 (Part-III),2008RA
5.	Concentration of Carbon monoxide (% v/v)	<0.2	1 %	IS 13270:1992
6.	Concentration of Carbon Dioxide (% v/v)	5.6		IS 13270:1992
7.	Concentration of Oxygen (% v/v)	15.4		IS 13270:1992
8.	Concentration of Sulphur Dioxide (mg/Nm3)	245.0		IS 11255 (Part-II),1985, RA 2014
9.	Concentration of Nitrogen Oxides (mg/Nm3)	170.0		IS 11255 (Part-II),2005, RA 2017
10.	Concentration of Particulate Matters (mg/Nm^3)	86.2	100	IS 11255 (Part-I),1985, RA
E .	**Pollution control device**			
	Details of pollution control devices attached with the stack : Bag Filter			
F.	**Remarks** : Nil			

Report Prepared by:

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/517
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00472
Sample Description : Ambient Air Monitoring
Sampling Location : Near Security 14
Date of Sampling : 23.01.2024

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	60.0	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	24.3	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	9.6	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	28.5	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.48	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	<10.0	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/518
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00473
Sample Description : Ambient Air Monitoring
Sampling Location : Guest House
Date of Sampling : 23.01.2024

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	58.4	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	27.0	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	6.4	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	30.3	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.32	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	<10.0	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/509
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/00471
Sample Description : Ambient Air Monitoring
Sampling Location : Bachelors Colony
Date of Sampling : 08.02.2024

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	72.1	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	31.0	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	7.4	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	26.8	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.57	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	<10.0	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/508
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/00470
Sample Description : Ambient Air Monitoring
Sampling Location : Near Water Reservoir
Date of Sampling : 08.02.2024

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	82.4	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	39.0	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	8.4	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	27.8	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.64	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	19.4	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/515
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00470
Sample Description : Ambient Air Monitoring
Sampling Location : Resin Pit Area
Date of Sampling : 22.01.2023

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	76.2	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	30.0	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	10.0	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	32.2	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.57	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	<10.0	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/516
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00471
Sample Description : Ambient Air Monitoring
Sampling Location : Hazardous Waste Oil Storage Area
Date of Sampling : 22.01.2024

ANALYSIS RESULT

Sl. No	POLLUTANT	RESULT	LIMIT	METHOD OF TEST REFERENCE
1.	Particulate matter (<10µm) in µg/m^3	84.6	100	IS: 5182 (Part-23)-2006
2.	Particulate matter (<2.5µm) in µg/m^3	26.1	60	USEPA CFR-40,Part-50, Appendix-L
3.	Sulphur dioxide (SO2) in µg/m^3	12.4	80	IS: 5182 (Part-2)-2001
4.	Nitrogen dioxide (NO_2) in µg/m^3	36.8	80	IS: 5182 (Part- 6)-2006
5.	Carbon monoxide (CO) in mg/m^3	0.63	2	IS: 5182 (Part- 10)-1999
6.	Ozone (O_3) in µg/m^3	<20.0	180	Air Sampling , 3rd Edn.By James P. Lodge (Method-417)
7.	Ammonia (NH_3) in µg/m^3	12.7	400	Air Sampling , 3rd Edn.By James P. Lodge (Method-401)
8.	Lead (Pb) in µg/m^3	<0.01	1	EPA IO-3.2
9.	Nickel (Ni) in ng/m^3	<5.0	20	EPA IO-3.2
10.	Arsenic (As) in ng/m^3	<1.0	6	APHA 22nd- 3114C
11.	Benzene (C_6H_6) in µg/m^3	<4.2	5	IS 5182 : Part. 11-2006
12.	Benzo(a)pyrene (BaP) in ng/m^3	<0.5	1	IS 5182 : Part. 12 -2004
NOTE : Limit as per CPCB notification, New Delhi, 18th November 2009,for Ambient air quality				

Report Prepared by:

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

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Mitra S. K. Private Limited
Plot No-687/4428, Kamra Villa Square,
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[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/507
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00933
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 05.10.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.43
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	3.9
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	21.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	390.0

Prepared By:-

For Mitra S.K. Private Limited

Authorized Signatory

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/506
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00932
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling : 05.10.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.25
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	16.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	26.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	480.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/505
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00931
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 05.10.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.32
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	<2.5
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	14.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	420.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN : U51909WB1956PTC023037]

T (0674) 2360917, 9777450189
F (0674) 2362918

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/504
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00930
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 05.10.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.19
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	2.8
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	18.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	310.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/503
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00933
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 14.11.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.32
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	21.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	10.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	320.0

Prepared By:-

For Mitra S.K. Private Limited

Authorized Signatory

MITRA S.K. PRIVATE LIMITED BBSR

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/502
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00932
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling: 14.11.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	6.98
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	11.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	7.4
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	380.0

Prepared By:

For Mitra S.K. Private Limited

Authorized Signatory

MITRA S.K. PRIVATE LIMITED BBSR

Mitra S. K. Private Limited
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/501
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00931
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 14.11.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.06
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	15.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	8.2
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	360.0

Prepared By:-

For Mitra S.K. Private Limited

Authorized Signatory

S.K. PRIVATE LIMITED BBSR MITRA

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/500
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00930
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 14.11.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	6.85
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	12.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	3.6
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	290.0

Prepared By:-

For Mitra S.K. Private Limited

Authorized Signatory

S.K. PRIVATE LIMITED BBSR

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/203
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00247
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 05.12.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.58
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	<2.5
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	1.7
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	220.0

Prepared By:

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/202
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00246
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling : 05.12.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	6.94
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	23.6
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	27.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	610.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/201
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00245
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 05.12.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.37
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	14.6
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	18.2
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	370.0

Prepared By:-

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For Mitra S.K. Private Limited

Authorized Signatory

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/200
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00244
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 05.12.2023

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.1
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	21.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	17.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	550.0

Prepared By:-

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For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/508
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/07/01053
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 24.01.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.34
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	9.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	10.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	540.0

Prepared By:-

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No 687/2428, Ekamra Villa Square
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[CIN U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/507
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/01052
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling : 24.01.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.32
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	31.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	27.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	520.0

Prepared By:-

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For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/506
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/01051
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 24.01.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.63
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	13.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	22.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	410.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/505
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/01050
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 24.01.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.17
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	14.8
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	21.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	390.0

Prepared By:-

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For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/503
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/01053
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 08.02.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.5
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	26.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	11.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	120.0

Prepared By:-

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For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/502
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/01052
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling : 08.02.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.29
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	42.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	17.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	480.0

Prepared By:-

For Mitra S.K. Private Limited

Authorized Signatory

MITRA S.K. PRIVATE LIMITED BBSR

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/501
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/01051
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 08.02.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.30
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	48.2
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	15.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	330.0

Prepared By:-

MITRA S.K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/500
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/01050
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 08.02.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.25
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	38.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	14.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	310.0

Prepared By:-

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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MSK TESTING INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/602
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/01167
Sample Description : Effluent Water
Sampling Location : STP Outlet (Bachelor Colony Capacity 200 KLD)
Date of sampling : 28.03.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.01
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	77.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	27.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	790

Prepared By:-

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN: U51909WB1956PTC023037]
T :(0674) 2360917, 9777450189
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/601
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/01166
Sample Description : Effluent Water
Sampling Location : STP Outlet (Near Staff Canteen Capacity 10 KLD)
Date of sampling : 28.03.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.19
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	44.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	23.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	410

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MSK TESTING ⊕ INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/600
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/01165
Sample Description : Effluent Water
Sampling Location : STP Outlet (Inside Staff Colony Capacity 200 KLD)
Date of sampling : 28.03.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	6.98
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	68.4
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	23.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	520

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MSK TESTING & INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED
Ghantikhal , Athagarh , Cuttack

Report No. : BBS/607
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/01167
Sample Description : Effluent Water
Sampling Location : STP Outlet (Rolling Mill Capacity 10 KLD)
Date of sampling : 28.03.2024

ANALYSIS RESULT

SL. No.	Test Parameters	Unit	Test Method / Specification	STP Outlet standard as per CTO	Result
1.	pH value at 26°C	---	APHA(23rd Edtn.)4500-H-B	6.5-9.0	7.5
2.	Total Suspended Solids (as TSS)	mg/l	APHA(23rd Edtn.)2540D	<100	28.0
3.	Biochemical Oxygen Demand (as BOD)	mg/l	APHA(23rd Edtn.)5210B	<30	17.0
4.	Faecal Coliform	MPN/100ml	APHA(23rd Edtn.)9221E	<1000	280

Prepared By:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S.K. Private Limited

Authorized Signatory

Annexure - V

M/s AARTI STEELS LIMITED, GHANTIKHAL, CUTTACK Solid Waste Management Report for the Year (April 2023- March 2024)							
Sl.No.	**Process Unit**	**Category of Waste**	**Waste Generation at full operating capacity (TPY)**	**Waste Generation at present operating capacity (TPY)**	**Waste Utilization (TPY)**	**Utilisation (In %)**	**Management**
1	**0.2 MTPA SMS**	Slag	56100	26089	1069	4	Disposed off for road making/land filling/disposal after iron recovery.
2	**2 X 500 TPD DRI**	Char	132000	75941	65000	86	Used as Fuel in power plant.
		Iron Fines	132000	75093	44953	60	Being sold
		Wet scrapper sludge	10560	10181	0	0	Being Sold
		DE Dust	21450	20355	20355	100	DE dust is used in DRI after burning chamber for energy recovery.
3	**90 MW Power Plant**	Fly ash from AFBC, CFBC, WHRB - I &II	207000	174633	174633	100	Used by supplying fly ash to cement & Brick manufacturing units.
		Bottom ash from AFBC, CFBC,	90000	68506	68506	100	Road making,land fillings and supply for paver blocks making
4	**2 X 9 MVA**	Slag	25000	25000	22600	90	Road making,land filling and balance is disposed in the allocated disposal site
5	**1 x 18 MVA**	Slag	25000	25000	22800	91	Road making,land filling and balance is disposed in the allocated disposal site
6	**0.2 MTPA Rolling Mill**	Mill Scale	2400	1850	1822	98	Being sold
Total			**701510**	**502648**	**421738**	**83.90**	

Annexure - VI

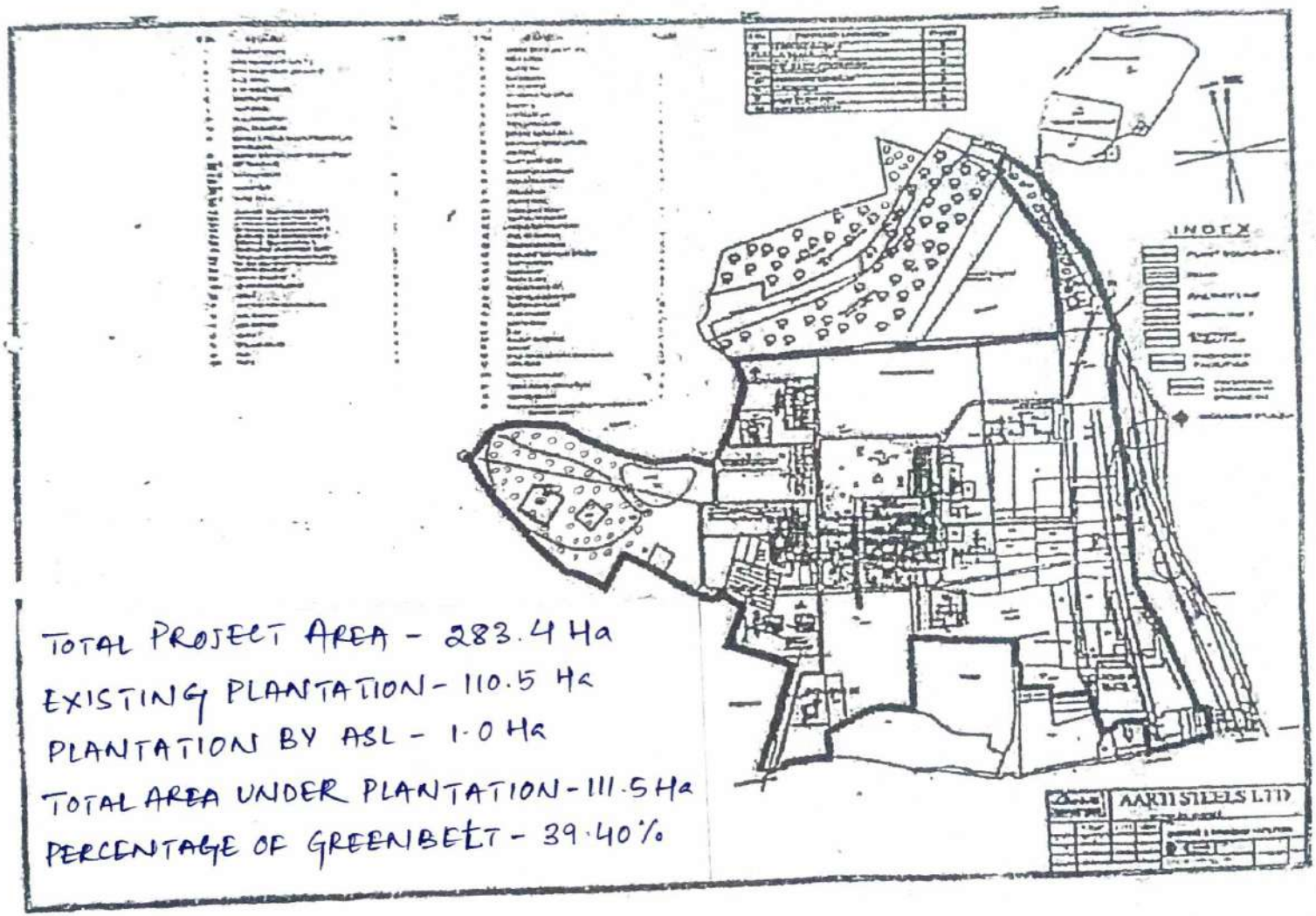
SL.NO.	Name of the Industry	Location	No. of units	Year	Total capacity	Power Generation on (MWH)	Coal/Lignite consumption(MT)	Ash Generated in MT		
								Quantity of fly ash generated	Quantity of Bottom ash generated	Total Ash Generated
1	Aarti Steels Ltd.	Ghantikhal, Cuttack	4 units	2023-24	90 MW	481123	424393	174632	68505	243137

ASH UTILIZATION IN MT

Target (as per action plan)	Ash Pond rising in tonnes	Cement/ other industry	Land developme nt	Own bricks unit(MT)	Bricks Unit(MT) outside	Brick Kiln	Road Embankment	Back filling of mines/stone quarry	Agriculture	Own based product(oth er than bricks	Ash based product (outside)
243137	0	6817	6119		230201	0	0	0	0	0	0

		Total Ash Utilized	Qumulative quantity of ash utilized	Qumulat ive total of ash not utilized	% of utilization	Likely increase in ash generation
		243137			100	

Annexure - VII



TOTAL PROJECT AREA - 283.4 Ha
EXISTING PLANTATION - 110.5 Ha
PLANTATION BY ASL - 1.0 Ha
TOTAL AREA UNDER PLANTATION - 111.5 Ha
PERCENTAGE OF GREENBELT - 39.40%

Annexure-VIII

PLAN FOR COMPLYING THE RECOMMENDATIONS OF CREP AT AARTI STEELS LIMITED,Ghantikhal,Cuttack.

The point wise action plan as applicable to us as on date for complying the recommendations of CREP are as indicated below:

2. **Steel Melting Shop**

Fugitive emissions to be reduced to 100% by March 2008 - Complied.

We have installed Dust Extraction system (DES) connected to bag filter for lime handling & secondary emission control system connected to Bag Filter to control fugitive emission from SMS during charging and the fumes after treatment in bag filter is being discharged to atmosphere through a stack height of 35 meter and at a particulate matter concentration below 100mg/Nm3

Fumes coming out from EAF at around 1200 ^{0}C is diluted and cooled in water cooled duct, gas cooler & mixing chamber to 120^{0}C before entry to baghouse for cleaning. Swiveling canopy hood over the ladle refining furnaces (2 sets) has been provided. The furnace gas is passed through mixing chamber. The fumes of EAF & LRFs after passing through common mixing chamber at a temp. of about 120 ^{0}C is cleaned in a common bag filter & discharged to atmosphere through a common stack of height of 40 meter and at a particulate matter concentration below 100 mg/Nm3.

4.Solid Waste/Hazardous Waste Management

We have taken the following measures to reduce solid waste generation, its proper utilization and disposal:

Adequate pneumatic dust handling system at the hoppers of CFBC (ESP), AFBC (ESP), WHRB (ESPs) & DRI Bag Filters has already been installed & operating satisfactorily.

- Installed adequate pneumatic dust collection system at bag filter attached to EAF & LRF followed by pug mill.
- Collected dust from FAP Bag Filter is being utilized for Briquette making.
- Dust & Solid waste removal being carried out on regular basis by using loader, tractor/tipper etc.
- The solid waste generated is being suitably disposed off within the premises without creating any dust nuisance or environmental contamination.

In addition to above, we have taken the following measures to further reduce solid waste generation, its proper utilization and disposal:

-Constructed a new coal screening building at a cost of approx. 3 Crores for screening of coal fines of 4 mm and routing the same to boiler without passing through washery. As a result waste fines generated in the washery has been reduced from 12% to 3% (approx.)

-Middlings and rejects of coal washery are being used as fuel in boiler for generation of steam. Char generated is being utilized in AFBC & CFBC power plant to the extent possible. The utilization will be more if CFBC plant will be in continuous operation. The kiln accretion is being dumped in allocated solid waste disposal area of our plant.DM resin from process is being disposed-off in impervious lined pit with cover. Used oil is being sold to regd. Recyclers/re-refiners only. Constructed used oil storage shed with concrete platform for storage of used oil (a hazardous waste). Constructed bio-medical waste disposal pit for disposal of our First Aid Centre bio-medical waste. Also provided organic waste converter for conversion of canteen waste into fertilizer. The same is being utilised in green belt development.

-Utilizing -1 mm microfines of coal in our CFBC Boiler.

-Installed briquette plant for briquette making utilizing bag filter chrome dust.

-DRI Bag filter dust is being utilized in Kiln firing to the extent possible.

-Installed Jigging plant for recovery of ferro alloys from its slag. Utilizing H.C. Ferro Chrome Slag as replacement aggregates for non-critical construction jobs since Sept., 2011 to the maximum and the rest is being utilized for land filling/road making etc.to the maximum extent inside our plant premises & balance is being dumped on designated dump site inside the factory premises.

Infrastructure & Mechanism

The allocated solid waste area is situated at considerable distance from operational /working zone and a green belt already exists around it to prevent propagation of air borne dust from the dumping site. Dust & solid waste removal is being carried out on regular basis by using Pay Loader, Tractor, Tipper, JCB, Hyva etc. and is being disposed off in the allocated area following progressive solid wastes disposal practice. Leveling and compressing is being done from time to time with dozer to create more space for fresh solid wastes. Water spraying arrangement using tanker has been made periodically for Dust Suppression at the designated disposal site. Solid wastes generated are being immediately shifted to designated disposal site to prevent air and water pollution. We are not shifting/transporting /disposing solid wastes from our premises in any public place.

FLY ASH MGMT

We have achieved 100% utilization during 2023-24 by supplying to Brick Plants, Cement Plant & land filling.

(ii)100%Utilization of Steel Melting Slag by 2007-

We would like to inform you that EAF slag is being utilized for road making/low lying land filling etc.to the extent possible by a nearby Industry/locality and the rest is being dumped on designated dump site inside the factory premises.

(iii)HAZARDOUS WASTE MANAGEMENT

Invetorisation of the Hazardous waste as per Hazardous Waste (M&H) rules, 1989 as amended from time to time has already been carried out and the rules are being implemented. The details of Hazardous waste management at M/s Aarti Steels Limited,Ghantikhal is as follows.

HAZARDOUS WASTE MANAGEMENT

HAZARDOUS WASTE MANAGEMENT AT M/S AARTI STEELS LIMITED, GHANTIKHAL

Sl No.	Waste Description	Waste Class/Stream	Schedule	Quantity	Disposal
01	Used/Spent Oil	5.1	1	30 T/A	Being sold to OSPCB authorized re-refiner/recycler.
02	Waste/Residues containing oil	5.2	1	1.7 T/A	Being disposed off in impervious pit/containers with cover.
03	Spent resin from DM plant	35.2	1	3.5 T/A	Being Stored in impervious pits/containers over impervious floor under well ventilated covered shed followed by utilization in DRI Kiln for energy recovery.
04.	Flue Gas Cleaning Residue.	35.1	1	1000 T/A	Being utilized for briquette manufacturing for use as raw material in the furnace inside our factory premises.

5. Water Conservation/Water Pollution

*We are not discharging any process effluent. The detailed water management carried out in all the process units is furnished below. Our entire process unit is adhering to Zero discharge concept by adopting water reuse.

- POWER PLANT:

Full utilization of Blow down and waste water for slurry making thereby optimizing the water requirement. We are not discharging any process effluent. The blow down water from cooling tower, Boiler, coolers & RO plant after treatment in neutralization pit is collected in wastewater sump and the same is reused for slurry making. Overflow decanted water from ash slurry is collected in wastewater sump and recycled. Surface run-off/spillage/plant washing water from power plant are being recycled through ESP dust handling system. Thus the company achieves zero discharge by using treated effluent in the process.

-COAL WASHERY:

We are not discharging water from the Coal Washery. The entire floor cleaning materials of the Coal Washery is collected in the ground floor sump in the form of slurry. The slurry is pumped back in the prime reject screen from where coal & magnetite is separated. Thus we are adopting closed circuit system.

SPONGE IRON PLANT:

Sponge Iron unit utilizes water only for cooling purpose. Hot water generated from the rotary cooler get 100% recycled onto cooling process through cooling tower. Surface run-off/spillage/plant washing water from DRI plant are being recycled through bag filter dust handling system.

SMS:

The unit has been provided with cooling cum re-cycle arrangements for the cooling waste water of EAF as well LRFS, settling tank & pressure sand filters are provided in the recycling

arrangement meant for the cooling wastewater of billet caster. The effluent is confined within the system hence discharge from the SMS is not envisaged.

FAP:
The unit has provided with recycling arrangements for the cooling waste water of SAF & surface run-off/effluent of Jigging & briquetting facility. Thus the company achieves zero discharge by using treated effluent in the process. Thus the company achieves zero discharge by using treated effluent in the process. For 1x18 MVA FAP project recycling arrangements for the cooling waste water of SAF has been installed.

Rolling Mill:
The unit has been provided with cooling cum re-cycle arrangements for the cooling waste water of Rolling Mill, settling tank & pressure sand filters are provided in the recycling arrangement meant for the cooling waste water of the mill. The effluent is confined within the system hence discharge from the mill is not envisaged.

-Installed STP at colonies, office complex, canteen & rolling mill for treatment of waste water and the water after treatment is being utilized for dust suppression/gardening.

* **Implementation of rain Water Harvesting**

In consultation with IIT, Kharagpur, we have already constructed surface run-off rain water harvesting pit of size (83mx73mx5m) for surface run off & rain water storage. Installation of Pumps, Pipelines etc for transporting the stored water to raw water reservoir for recycling has been completed in July-2012 and the system is operating satisfactorily.

6. Online monitoring facility :

We have already installed 4 nos online continuous ambient air quality monitoring stations (MOEF approved methodology & USEPA approved equipment) for measuring the parameters such as PM_{10}, $PM_{2.5}$,SO_2,NOx,CO and online continuous stack emission monitoring system for all ESPs & GCP stacks for measuring the required parameters. Further,we have installed RT-DAS for AAQ and Stacks & uploaded real time data to the OSPCB & CPCB server through M/s Phoenix Robotics Private Limited,Rourkela & M/s EnvEA India,Thane respectively.

7. Efficient Operation of Pollution Control Equipments

To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard to be submitted to CPCB/SPCB every three months-**Being Complied**.

9. Adoption of Clean technologies

-Aarti Steels Limited, Ghantikhal has obtained ISO 9001, ISO 14001& ISO 45001 certification since October,2009.

-In consultation with IIT, Kharagpur,we have already constructed surface run-off water harvesting pit of size (83mx73mx5m) for rain water storage. Installation of Pumps, Pipelines etc for transporting the stored water to raw water reservoir for recycling has been completed in July-2012 and the system is operating satisfactorily.

-Reduction of green house gases by:

- Energy Audit conducted. Suggestions/observations shall be implemented in a phased manner.
- Installed WHRB for power generation there by reducing emission of greenhouse gases(Energy loss redn.).
- We have already made provision to run VFD control pump with 100% valve opening for effective and efficient operation for Energy Saving with EAF Cooling Pumps (SMS-NEW WATER COMPLEX)
- One cooling pump is running in EAF in place of two cooling pumps there by saving one pump of 110 KW.
- ID fan speed interlock with EAF VCB.
- LRF cooling water pump outlet connected directly to cooling tower saving one PHE pump of 75 KW.
- Installed Capacitor Bank towards conservation of energy.
- Installed one 37 KW pump on VD for cooling tower water circulation.
- CCM hydraulic cooling water shifted from mould cooling pump to LRF cooling pump.
- CCM mould cooling water pump connected to VD while casting and hence casting running at 50% speed and very less load.
- FES cooling water pump impeller trimming there by saving one pump of 160 KW.
- CCM secondary cooling water pump connected to VFD. Lod reduced from 103 Amp to 68 Amp.
- Interlocking lime feeding conveyor with WF.
- EAF cooling tower 2 no Aluminium fan blade replaced with FRP fan blade.
- Drum level control of WHRB-II boiler is shifted from CV to VFD.
- Kiln-2 pressure control with WHRB-II ID fan VFD in place of damper control.
- Installed variable frequency drive in our EAF for energy conservation.
- All ESP hoppers heater switching arrangement as and when required.
- WHRB-1 BFP-1 one stage removed.
- Control of unburnt in AFBC Boiler fly ash.
- DRI –II cold well & hot well impeller trimming.
- SMS EAF water pump-2 & SMS VD Coldwell water impeller trimming.
- VFD provided at Kiln-2 lobe compressor.

- Reduction of maximum demand of power by proper load planning.
- Use of CFL in place of ICL, wherever possible.
- Use of BIS marked & BEE 5 star rated electric appliances.
- Electric heater for cooking has been stopped. Cooking gas is being used.
- Ernst & Young has studied our plant to verify the present status of energy efficiency. They will also suggest a target for improvement in the energy consumption which will be achieved by adopting various energy conservation measures.
- Started utilization of translucent fiber sheets on roof tops of stores & other areas for use of day(sun) light energy.
- Replacement of High-Pressure Mercury vapour lamps and high-pressure sodium vapour lamps with Energy Efficient Metal Halide fittings and lamps.
- Use of 2x36 W CFL light in place of High-Pressure Sodium vapour lamp.
- De-linking illumination/light load/connection from other loads in DRI unit.
- Introduction of timer switches for controlling day time loading completed in 50 MW power plant.
- Targets for resource conservation has been set.

Environmental Monitoring

- As per OSPCB direction, we have already installed 4 nos online continuous ambient air quality monitoring stations (MOEF approved methodology & USEPA approved equipment) for measuring the parameters such as PM10, PM2.5,SO_2,NOx,CO and online continuous stack emission monitoring system for all power plant ESP stacks for measuring the parameters such as PM,SO2,NOx & GCP(bag filter) stacks for measuring the parameters such as PM. Further,we have installed RT-DAS for AAQ and Stacks & uploaded real time data to the OSPCB & CPCB server through M/s Phoenix Robotics, Rourkela & M/s ENVEA India Private Limited, Thane respectively. For remaining parameters & for on line system calibration purpose we are carrying out Env.monitoring & Analysis through **M/s Mitra S.K.Private Limited**(NABL,MOEF authorized laboratory & OSPCB empaneled consultant).

House Keeping:

Proper House Keeping with in the plant premises is being carried out. Continuous efforts are being made to improve it further. Inspection for improvement in House Keeping is being carried out. Dedicated team has been constituted in all the units to maintain proper housekeeping.

Annexure - IX

Mitra S. K. Private Limited

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/503
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00780
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	05.10.2023	Central Store	54.1	42.7
2.	05.10.2023	Switch Yard	67.6	47.8
3.	05.10.2023	Workers Colony	45.3	38.1
4.	05.10.2023	Railway Siding	72.8	51.4
5.	05.10.2023	Weigh Bridge	64.7	44.8
6.	05.10.2023	Guest House	42.4	36.9
7.	05.10.2023	Main Gate	62.7	43.2
8.	05.10.2023	Staff Colony	50.8	37.9
9.	05.10.2023	Admin. Building	49.2	36.4
10.	05.10.2023	safety excellence Centre	57.9	41.8
11.	05.10.2023	Traffic point near coal washery	54.8	49.4
12.	05.10.2023	Dispensary	44.9	36.2
13.	05.10.2023	Canteen	52.5	40.2

Noise Limit as per CPCB			
Category of Area/Zone	**Leq dB(A) Day Time**	**Leq dB(A) Night Time**	**NOTE :** Day Time : 06.00 Hr.-22.00 Hr. Night Time:22.00 Hr.-06.00 Hr.
Industrial Area	**75**	**70**	
Commercial Area	**65**	**55**	
Residential Area	**55**	**45**	
Silence Zone	**50**	**40**	

Report Prepared by:

For Mitra S. K. Private Limited

A. C. Rath

Authorized Signatory

MITRA S.K. PRIVATE LIMITED BBSR

Report No: BBS/502

Date: 27.10.2023

17.	04.10.2023	DRI Cooler Discharge Area	60.9
18.	04.10.2023	DG Set (Power Plant)	82.2
19.	04.10.2023	CFBC Boiler	71.7
20.	04.10.2023	AFBC Boiler	73.2
21.	04.10.2023	WHRB 1 Boiler	61.9
22.	04.10.2023	WHRB 2 Boiler	74.6
23.	04.10.2023	TG Set	84.2
24.	04.10.2023	Air Compressor	62.1
25.	04.10.2023	Rolling Mill Area	72.8

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

For Mitra S. K. Private Limited

Report Prepared by:

MITRA S.K. PRIVATE LIMITED BBSR

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MSK TESTING • INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/502
Date : 27.10.2023
Sample No. : MSKGL/ED/2023-24/10/00700
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	04.10.2023	SMS LRF	64.2
2.	04.10.2023	SMS EAF	68.1
3.	04.10.2023	SMS CCM	70.6
4.	04.10.2023	IOC Terax Crusher Area	65.9
5.	04.10.2023	IOC Screen Building	60.4
6.	04.10.2023	CHP 400 TPH Crusher	72.6
7.	04.10.2023	CHP 220 TPH Crusher	62.9
8.	04.10.2023	FAP 1x18 mva Furnace GF	71.2
9.	04.10.2023	FAP 1x18 MVA Compressor Room	73.6
10.	04.10.2023	FAP 2x9 MVA Furnace GF	67.8
11.	04.10.2023	FAP 2x9 MVA Compressor Room	70.4
12.	04.10.2023	Briquetting Mixture Machine	64.3
13.	04.10.2023	Briquetting Drier	77.8
14.	04.10.2023	DRI Kiln 1	62.4
15.	04.10.2023	DRI Kiln 2	64.6
16.	04.10.2023	DRI Bagging Area	66.2

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/504
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00280
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	14.11.2023	Central Store	52.8	40.1
2.	14.11.2023	Switch Yard	64.3	44.7
3.	14.11.2023	Workers Colony	41.6	37.8
4.	14.11.2023	Railway Siding	69.7	49.7
5.	14.11.2023	Weigh Bridge	62.5	42.4
6.	14.11.2023	Guest House	40.8	37.3
7.	14.11.2023	Main Gate	63.9	46.8
8.	14.11.2023	Staff Colony	51.5	38.4
9.	14.11.2023	Admin. Building	50.6	36.9
10.	14.11.2023	Safety excellence Centre	55.4	40.7
11.	14.11.2023	Traffic point near coal washery	45.9	36.8
12.	14.11.2023	Dispensary	42.4	37.1
13.	14.11.2023	Canteen	53.8	40.9

Noise Limit as per CPCB			
Category of Area/Zone	**Leq dB(A) Day Time**	**Leq dB(A) Night Time**	**NOTE :** Day Time : 06.00 Hr.-22.00 Hr. Night Time:22.00 Hr.-06.00 Hr.
Industrial Area	**75**	**70**	
Commercial Area	**65**	**55**	
Residential Area	**55**	**45**	
Silence Zone	**50**	**40**	

Report Prepared by:

For Mitra S. K. Private Limited

Authorized Signatory

Report No: BBS/505

Date: 12.12.2023

17.	14.11.2023	DRI Cooler Discharge Area	62.1
18.	14.11.2023	DG Setpower Plant	80.9
19.	14.11.2023	CFBC Boiler	75.9
20.	14.11.2023	AFBC Boiler	73.7
21.	14.11.2023	WHRB 1 Boiler	63.8
22.	14.11.2023	WHRB 2 Boiler	72.5
23.	14.11.2023	TG Set	82.9
24.	14.11.2023	Air Compressor	63.6
25.	14.11.2023	Project Rolling Mill Area	70.9

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

Report Prepared by:

For Mitra S. K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited
Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN: U51909WB1956PTC023037]

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MSK TESTING • INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/505
Date : 12.12.2023
Sample No. : MSKGL/ED/2023-24/11/00640
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	14.11.2023	SMS LRF	66.4
2.	14.11.2023	SMS EAF	67.8
3.	14.11.2023	SMS CCM	72.8
4.	14.11.2023	IOC Terax Crusher Area	64.7
5.	14.11.2023	IOC Screen Building	60.2
6.	14.11.2023	CHP 400 TPH Crusher	73.8
7.	14.11.2023	CHP 220 TPH Crusher	60.5
8.	14.11.2023	FAP 1x18 MVA Furnace GF	72.4
9.	14.11.2023	FAP 1x18 MVA Compressor Room	70.5
10.	14.11.2023	FAP 2x9 MVA Furnace GF	65.2
11.	14.11.2023	FAP 2x9 MVA Compressor Room	72.9
12.	14.11.2023	Briquetting Mixture Machine	62.8
13.	14.11.2023	Briquetting Drier	74.2
14.	14.11.2023	DRI Kiln 1	60.9
15.	14.11.2023	DRI Kiln 2	66.4
16.	14.11.2023	DRI Bagging Area	69.8

Mitra S. K. Private Limited
Plot No 687/2428, Ekamra Villa Square,
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[CIN : U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/205
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00600
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	06.12.2023	Central Store	51.4	39.8
2.	06.12.2023	Switch Yard	70.8	49.5
3.	06.12.2023	Workers Colony	50.7	40.1
4.	06.12.2023	Railway Siding	71.9	51.6
5.	06.12.2023	Weigh Bridge	67.4	47.8
6.	06.12.2023	Guest House	44.6	37.1
7.	06.12.2023	Main Gate	64.8	42.5
8.	06.12.2023	Staff Colony	50.3	39.4
9.	06.12.2023	Admin. Building	52.2	42.9
10.	06.12.2023	Safety Excellence Centre	60.4	40.7
11.	06.12.2023	Traffic point near Coal Washery	54.6	38.9
12.	06.12.2023	Dispensary	45.9	36.4
13.	06.12.2023	Canteen	55.1	42.3

Noise Limit as per CPCB			
Category of Area/Zone	**Leq dB(A) Day Time**	**Leq dB(A) Night Time**	**NOTE :** Day Time : 06.00 Hr.-22.00 Hr. Night Time:22.00 Hr.-06.00 Hr.
Industrial Area	**75**	**70**	
Commercial Area	**65**	**55**	
Residential Area	**55**	**45**	
Silence Zone	**50**	**40**	

Report Prepared by:

For Mitra S. K. Private Limited

Authorized Signatory

Report No. BBS/204 Date: 24.01.2024

17.	05.12.2023	DRI Cooler Discharge Area	67.4
18.	05.12.2023	DG Set Power Plant	83.2
19.	05.12.2023	CFBC Boiler	81.5
20.	05.12.2023	AFBC Boiler	74.9
21.	05.12.2023	WHRB I Boiler	71.8
22.	05.12.2023	WHRB II Boiler	72.7
23.	05.12.2023	TG Set	82.4
24.	05.12.2023	Air Compressor	68.9
25.	05.12.2023	Rolling Mill Area	76.1

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

Report Prepared by:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha 751015
[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED',
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/204
Date : 24.01.2024
Sample No. : MSKGL/ED/2023-24/12/00900
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	05.12.2023	SMS LRF	67.5
2.	05.12.2023	SMS EAF	68.1
3.	05.12.2023	SMS CCM	70.2
4.	05.12.2023	IOC Terax Crusher Area	72.6
5.	05.12.2023	IOC Screen Building	68.9
6.	05.12.2023	CHP 400 TPH Crusher	70.5
7.	05.12.2023	CHP 220 TPH Crusher	72.1
8.	05.12.2023	FAP 1x18 MVA Furnace GF	75.8
9.	05.12.2023	FAP 1x18 MVA Compressor Room	71.4
10.	05.12.2023	FAP 2x9 MVA Furnace GF	73.6
11.	05.12.2023	FAP 2x9 MVA Compressor Room	81.2
12.	05.12.2023	Briquetting Mixture Machine	79.5
13.	05.12.2023	Briquetting Drier	82.8
14.	05.12.2023	DRI Kiln 1	66.4
15.	05.12.2023	DRI Kiln 2	63.1
16.	05.12.2023	DRI Bagging Area	76.9

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED',
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/510
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00720
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	24.01.2024	Central Store	52.8	41.9
2.	24.01.2024	Switch Yard	68.4	49.5
3.	24.01.2024	Workers Colony	47.2	37.6
4.	24.01.2024	Railway Siding	70.8	52.3
5.	24.01.2024	Weigh Bridge	66.2	45.1
6.	24.01.2024	Guest House	46.8	37.5
7.	24.01.2024	Main Gate	62.1	40.8
8.	24.01.2024	Staff Colony	50.9	38.6
9.	24.01.2024	Admin. Building	72.6	42.3
10.	24.01.2024	Safety Excellence Centre	61.9	43.5
11.	24.01.2024	Traffic point near Coal Washery	52.1	39.7
12.	24.01.2024	Dispensary	45.8	37.9
13.	24.01.2024	Canteen	67.9	40.7

Noise Limit as per CPCB			
Category of Area/Zone	**Leq dB(A) Day Time**	**Leq dB(A) Night Time**	**NOTE :** Day Time : 06.00 Hr.-22.00 Hr. Night Time:22.00 Hr.-06.00 Hr.
Industrial Area	**75**	**70**	
Commercial Area	**65**	**55**	
Residential Area	**55**	**45**	
Silence Zone	**50**	**40**	

Report Prepared by:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Report No: BBS/508

Date: 09.02.2024

17.	23.01.2024	DRI Cooler Discharge Area	67.2
18.	23.01.2024	DG Set Power Plant	82.1
19.	23.01.2024	CFBC Boiler	74.9
20.	23.01.2024	AFBC Boiler	70.6
21.	23.01.2024	WHRB I Boiler	72.2
22.	23.01.2024	WHRB II Boiler	73.1
23.	23.01.2024	TG Set	84.5
24.	23.01.2024	Air Compressor	71.0
25.	23.01.2024	Rolling Mill Area	74.9

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

For Mitra S. K. Private Limited

Report Prepared by:

MITRA S.K. PRIVATE LIMITED BBSR

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Vila Square,
Jaydev Vihar, 1st Floor, IRC Village,
Bhubaneswar, Khordha, Odisha-751015
[CIN: U51909WB1956PTC023037]

T : (0674) 2360917, 9777450189
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/509
Date : 09.02.2024
Sample No. : MSKGL/ED/2023-24/01/00840
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	23.01.2024	SMS LRF	67.4
2.	23.01.2024	SMS EAF	71.5
3.	23.01.2024	SMS CCM	68.8
4.	23.01.2024	IOC Terax Crusher Area	69.4
5.	23.01.2024	IOC Screen Building	70.5
6.	23.01.2024	CHP 400 TPH Crusher	71.9
7.	23.01.2024	CHP 220 TPH Crusher	73.6
8.	23.01.2024	FAP 1x18 MVA Furnace GF	72.9
9.	23.01.2024	FAP 1x18 MVA Compressor Room	67.5
10.	23.01.2024	FAP 2x9 MVA Furnace GF	70.1
11.	23.01.2024	FAP 2x9 MVA Compressor Room	82.9
12.	23.01.2024	Briquetting Mixture Machine	67.1
13.	23.01.2024	Briquetting Drier	80.6
14.	23.01.2024	DRI Kiln I	62.4
15.	23.01.2024	DRI Kiln II	64.9
16.	23.01.2024	DRI Bagging Area	75.2

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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[CIN: U51909WB1956PTC023037]

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MSK TESTING • INSPECTION

TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/505
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/00810
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	07.02.2024	Central Store	53.2	40.4
2.	07.02.2024	Switch Yard	65.8	47.1
3.	07.02.2024	Workers Colony	46.4	36.2
4.	07.02.2024	Railway Siding	71.9	50.6
5.	07.02.2024	Weigh Bridge	67.4	46.4
6.	07.02.2024	Guest House	45.2	38.9
7.	07.02.2024	Main Gate	64.9	41.4
8.	07.02.2024	Staff Colony	51.6	37.8
9.	07.02.2024	Admin. Building	54.1	43.7
10.	07.02.2024	Safety Excellence Centre	62.4	44.1
11.	07.02.2024	Traffic point near Coal Washery	50.9	39.5
12.	07.02.2024	Dispensary	42.1	36.9
13.	07.02.2024	Canteen	52.8	40.4

Noise Limit as per CPCB			
Category of Area/Zone	**Leq dB(A) Day Time**	**Leq dB(A) Night Time**	**NOTE :** Day Time : 06.00 Hr.-22.00 Hr. Night Time:22.00 Hr.-06.00 Hr.
Industrial Area	**75**	**70**	
Commercial Area	**65**	**55**	
Residential Area	**55**	**45**	
Silence Zone	**50**	**40**	

Report Prepared by:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Report No: BBS/504

Date: 10.03.2024

17.	07.02.2024	DRI Cooler Discharge Area	69.1
18.	07.02.2024	DG Set Power Plant	81.0
19.	07.02.2024	CFBC Boiler	75.3
20.	07.02.2024	AFBC Boiler	80.2
21.	07.02.2024	WHRB I Boiler	70.6
22.	07.02.2024	WHRB II Boiler	74.2
23.	07.02.2024	TG Set	83.1
24.	07.02.2024	Air Compressor	72.9
25.	07.02.2024	Rolling Mill Area	70.2
26.	07.02.2024	Rolling Mill Near RHF Blower	81.3
27.	07.02.2024	Rolling Mill Near BD Mill	78.6
28.	07.02.2024	Rolling Mill Near Bright Bar Pealing Machine	77.9
29.	07.02.2024	Rolling Mill Near Straighting Machine	75.6

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

For Mitra S. K. Private Limited

Report Prepared by:

MITRA S.K. PRIVATE LIMITED BBSR

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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Bhubaneswar, Khordha, Odisha 751015
[CIN: U51909WB1956PTC023037]

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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/504
Date : 10.03.2024
Sample No. : MSKGL/ED/2023-24/02/00840
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	07.02.2024	SMS LRF	69.7
2.	07.02.2024	SMS EAF	67.3
3.	07.02.2024	SMS CCM	70.4
4.	07.02.2024	IOC Terax Crusher Area	65.2
5.	07.02.2024	IOC Screen Building	71.6
6.	07.02.2024	CHP 400 TPH Crusher	70.9
7.	07.02.2024	CHP 220 TPH Crusher	69.6
8.	07.02.2024	FAP 1x18 MVA Furnace GF	68.1
9.	07.02.2024	FAP 1x18 MVA Compressor Room	72.5
10.	07.02.2024	FAP 2x9 MVA Furnace GF	71.6
11.	07.02.2024	FAP 2x9 MVA Compressor Room	80.5
12.	07.02.2024	Briquetting Mixture Machine	64.3
13.	07.02.2024	Briquetting Drier	82.9
14.	07.02.2024	DRI Kiln I	60.4
15.	07.02.2024	DRI Kiln II	63.2
16.	07.02.2024	DRI Bagging Area	76.8

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/604
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/00810
Sample Description : Ambient Noise

ANALYSIS RESULT

Sl. No	Sampling Date	Sampling Location	Results in dB(A)	
			Day Time	Night Time
1.	27.03.2024	Central Store	62.6	40.8
2.	27.03.2024	Switch Yard	62.5	43.6
3.	27.03.2024	Workers Colony	51.0	37.1
4.	27.03.2024	Railway Siding	70.3	44.9
5.	27.03.2024	Weigh Bridge	66.9	46.2
6.	27.03.2024	Guest House	43.8	37.5
7.	27.03.2024	Main Gate	70.4	39.6
8.	27.03.2024	Staff Colony	58.2	36.8
9.	27.03.2024	Admin. Building	62.1	41.2
10.	27.03.2024	Safety Excellence Centre	60.9	43.1
11.	27.03.2024	Traffic point near Coal Washery	59.8	36.8
12.	27.03.2024	Dispensary	44.0	37.0
13.	27.03.2024	Canteen	61.6	39.3

Noise Limit as per CPCB

Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time	NOTE :
Industrial Area	75	70	Day Time : 06.00 Hr.-22.00 Hr.
Commercial Area	65	55	Night Time:22.00 Hr.-06.00 Hr.
Residential Area	55	45	
Silence Zone	50	40	

Report Prepared by:

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Report No: BBS/603 Date: 16.04.2024

17.	28.03.2024	DRI Cooler Discharge Area	65.2
18.	28.03.2024	DG Set Power Plant	78.6
19.	28.03.2024	CFBC Boiler	71.5
20.	28.03.2024	AFBC Boiler	81.8
21.	28.03.2024	WHRB I Boiler	72.4
22.	28.03.2024	WHRB II Boiler	70.5
23.	28.03.2024	TG Set	82.8
24.	28.03.2024	Air Compressor	70.6
25.	28.03.2024	Rolling Mill Area	68.2
26.	07.02.2024	Rolling Mill Near RHF Blower	77.4
27.	07.02.2024	Rolling Mill Near BD Mill	81.6
28.	07.02.2024	Rolling Mill Near Bright Bar Pealing Machine	79.2
29.	07.02.2024	Rolling Mill Near Straighting Machine	77.9

OSHA'S Permissible Noise Exposure Limits	
Noise Level	**Exposure Limit**
85 dBA	**8.0 hours**

Report Prepared by

MITRA S. K. PRIVATE LIMITED BBSR

For Mitra S. K. Private Limited

Authorized Signatory

Mitra S. K. Private Limited

Plot No-687/2428, Ekamra Villa Square,
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TEST REPORT

Name & Address of the Customer :
AARTI STEELS LIMITED'.
Ghantikhal, Athagarh, Cuttack

Report No. : BBS/603
Date : 16.04.2024
Sample No. : MSKGL/ED/2023-24/03/00840
Sample Description : Noise (Work Zone)

Noise Level Monitoring Data

Sl. No	Sampling Date	Sampling Location	Results in Avg Leq dB(A)
1.	28.03.2024	SMS LRF	65.8
2.	28.03.2024	SMS EAF	70.1
3.	28.03.2024	SMS CCM	67.2
4.	28.03.2024	IOC Terax Crusher Area	62.8
5.	28.03.2024	IOC Screen Building	72.4
6.	28.03.2024	CHP 400 TPH Crusher	64.9
7.	28.03.2024	CHP 220 TPH Crusher	67.2
8.	28.03.2024	FAP 1x18 MVA Furnace GF	64.8
9.	28.03.2024	FAP 1x18 MVA Compressor Room	70.1
10.	28.03.2024	FAP 2x9 MVA Furnace GF	69.5
11.	28.03.2024	FAP 2x9 MVA Compressor Room	78.1
12.	28.03.2024	Briquetting Mixture Machine	61.9
13.	28.03.2024	Briquetting Drier	80.4
14.	28.03.2024	DRI Kiln I	62.6
15.	28.03.2024	DRI Kiln II	63.2
16.	28.03.2024	DRI Bagging Area	71.8

Annexure- X

CONSOLIDATED PERIPHERAL EXPENDITURES IN DIFFERENT HEADS up to 31.03.24

SL NO	PARTICULARS	AMOUNT
01	HEALTH CARE	Rs 2,29,44,200.00
02	EDUCATION	Rs 43,61,235.00
03	COMMUNITY DEVELOPMENT, SOCIAL WELFARE & OTHERS	Rs 3,85,03,432.00
04	GAMES & SPORTS	Rs 8,62,400.00
05	ENVIRONMENTAL PROTECTION	Rs 4,98,500.00
06	SOCIAL INFRASTRUCTURE & OTHER MISCELLANEOUS WORKS	Rs 42,53,855.00
	TOTAL	Rs 7,14,23,622.00

Annexure - XI

Expenditure Incurred on Environmental Protection Measures till by Aarti Steels Limited,for the period 01.10.2023 to 31.03.2024

- Total Expenditure incurred so far is **Rs 1094 (As per CA certificate)**
- Total cost incurred on environmental protection measures as on 31.03.2024 is **169.964 crore.**

Sl. No.	Category	Total Cost incurred till 30.09.2023 (in Crore)	Total Cost incurred till 31.03.2024 (in Crore)
1.	Air Pollution Control	87.77	88.76
2.	Water Pollution Control	8.24	8.324
3.	Conservation of Resources	*1.06926*	*1.06926*
4.	Noise Pollution Control	*0.159*	*0.159*
5.	Environment Monitoring	14.91	14.986
6.	Occupational Health	2.6795	2.7522
7.	Green Belt Development	2.506	2.666
8.	House Keeping	10.837	11.497
9.	Peripheral Development	6.990	7.1423
10.	Solid Waste Management	28.595	28.6164
11.	Hazardous Waste Management	*0.553*	*0.553*
12.	Statutory Fees	2.666	2.729
13.	Bio-medical Waste Management	*0.023*	*0.023*
14.	Others	0.685	0.687
	Total	**167.683**	**169.964**

Annexure –

Annexure - XII

CHAPTER - IX

9.1 ORGANISATION , MANPOWER AND FISCAL ESTIMATE

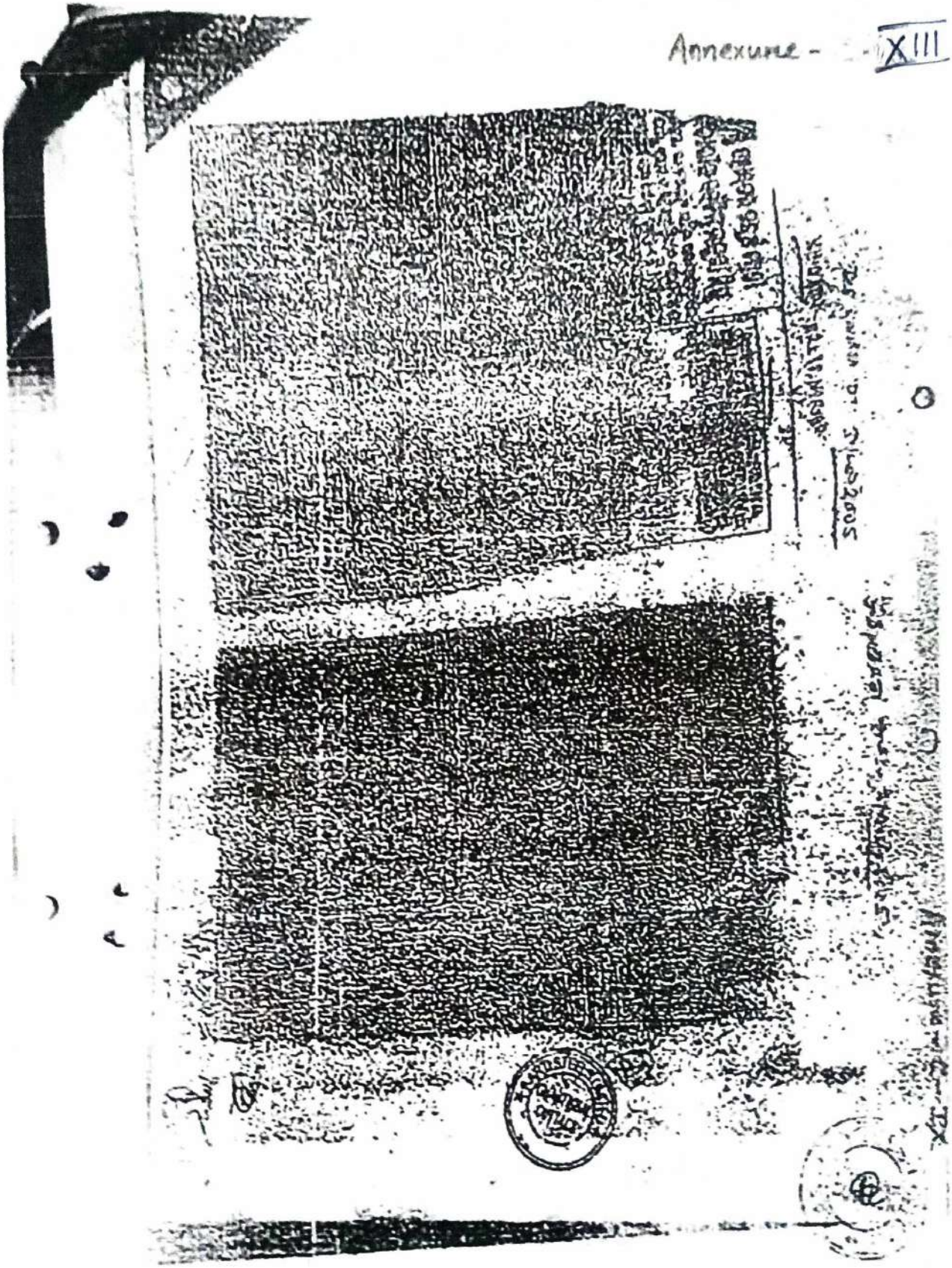
Aarti Steel Limited will be having a Pollution Control Cell at plant level as well as at Corporate level for interaction with statutory bodies. Plant Chief will head the plant level pollution control cell with a Nodal Officer, Engineers, Chemist, etc. The plant level Cell will be provided with well-equipped laboratory for carrying out analysis of the samples of the water, air etc. Plant Cell will carry out the monitoring of the stack emission, noise level, analysis of the water etc. and keep the regional/local statutory body informed about the status of pollution control with intimation to the Corporate office Pollution Control Cell. Aarti Limited will arrange professional training for personnel of pollution Control cell at plant level. The proper training shall be provided to persons of monitoring and continuous analysis of the pollutants, legal requirement and environmental management system.

The total project cost has been estimated to be 863.35 crores rupees. The capital cost of environmental control measures is 40 crores, which is:

i)	Cost of Air pollution Systems	:	Rs. 20.0 crores
ii)	Cost of Water Pollution Control	:	Rs. 4.5 crores
iii)	Cost of solid waste Management	:	Rs. 15.0 crores
iv)	Including cost of dust and ash dump storage with bunds and green belt development	:	Rs 0.5 crores

The annual cost of environmental control including the salary and perks for the personals engaged in the environmental cell. for the proposed unit has been estimated to be Rs. 4.5 crores.

Annexure - XIII



Annexure – XIV

Environmental Organizational Structure of Aarti Steels Ltd.,Cuttack

Full fledged Environment Management cell consist of the following employees.

1. Er. Ganeswar Panigrahi, B.Tech. (Mech. Engg.),PDIS,NEBOSH-D.G.M (HSE) & HOD (Environment) & Factory Manager
2. Mrs. Sanghamitra Das, M.Sc(Env. Sci.)- Dy. Manager (Environment)
3. Er. Devanand Parida,M.Tech(Env. Engg)- Asst. Manager(Environment)
4. Er.Kumuda Nilaratana, M.Tech (Env.Engg.)- Engineer (Environment)
5. Mr.Santosh Kumar Khuntia,Jr Gardner
6. Mr. Harihar Samal, Env. Attendent
7. Mr.Jambeswar Naik, Attendant

Head of the Environment Department directly reports to Mr. Sudipto Sadhan Paul, President.

The organization structure of Environment Department is given below.

AARTI STEELS LIMITED

ENVIRONMENT CELL