adani

Power

Ref: APL/Tiroda/EMD/MoEFCC/EC/213/11/23
Date: 27/11/2023

To,
Additional Principal Chief Conservator of Forest (APCCF)
Ministry of Environment, Forest & Climate Change
Regional Office (WCZ), Ground Floor, East Wing,
New Secretariat Building, Civil Line,
Nagpur-440001 (MH).

Sub: **Six Monthly Compliance Status report of Environmental Clearance of Tiroda Thermal Power Plant for Phase- I & II along with Environmental Monitoring reports– Reg.**

Ref: Environmental Clearance letter J 13011/4/2008-IA.II (T) dated 29.05.2008 & EC Amendment letter no. J-13011/4/2008 –IA II (T) dated: 21/03/2012.
Letter No. J-13012/81/2008-1A-II (T) dated – 22.04.2010 & EC Amendment Letter no. J-13012/81/2008 - IA II (T) dated: 30/03/2012 & 13/03/2014.

Dear Sir,

With reference to above subject, please find enclosed herewith Six-Monthly Environmental Clearance (EC) compliance status report along with environmental monitoring results like Ambient Air Quality, Stack Emission, Water Quality, Noise level, Soil, CAAQM, CEMS data, Met data, Greenbelt development details and CSR progress reports etc. for the period of **April'2023 to September'2023** in soft (**e-mail**).

This is for your kind information & record please.

Thanking you

Yours faithfully,
for **Adani Power Limited, Tiroda**

(**Santosh Kumar Singh**)
Authorized Signatory

Encl: **As above**

CC: Member Secretary
Central Pollution control Board
Parivesh Bhavan, East Arjun Nagar
Kendriya Paryavaran Bhawan
New Delhi- 110 032.

The Regional Officer,
Maharashtra Pollution Control Board
Regional Office, 5th Floor
Udyog Bhawan, Civil Lines, Nagpur – 440001

Member Secretary,
Maharashtra Pollution Control Board
Kalpataru Point, 2nd – 4th floor, **Mumbai**–22

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SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCES (EC)

3300 (5x660) MW TIRODA THERMAL POWER PLANT PHASE I & II

At

TIRORA, DISTRICT GONDIA
MAHARASHTRA

Submitted to:

Integrated Regional Office, Nagpur
Ministry of Environment, Forest & Climate Change,
Central Pollution Control Board, New Delhi &
Maharashtra Pollution Control Board, Mumbai and
Regional Office, Nagpur

Submitted By:

Environment Management Department

Adani Power Limited

Plot NO: A -1, Tirora Growth Centre
MIDC, Tirora, Gondia – 441911 (M.H)

PERIOD: April' 2023 – September' 2023

CONTENT

1.0 Introduction

Tiroda Thermal Power Plant of Adani Power Limited has established 3300 (5x660) MW Coal-based Thermal Power Plant at Tiroda, District Gondia in Maharashtra in two phases as below:
Phase I: 2 x 660 MW
Phase II: 3 x 660 MW

The plant site is located at Tiroda Growth Centre of MIDC (Maharashtra Industrial Development Corporation) developed area near Tiroda, District Gondia in Maharashtra. The Villages, Gumadhawra, Khairbodi, Chikhali, Churdi, Bhiwapur, Kachewani and Mendipur, surround the site. The power plant is based on supercritical, energy efficient & environment friendly technology.

Tiroda Thermal Power Plant has been granted Environmental Clearances from Ministry of Environment & Forest, Consent to Establish & Consent to Operate from Maharashtra Pollution Control Board for phase I & II (Unit 1, 2, 3, 4 & 5).
The Hon'ble NCLT vide its order dated 08.02.2023 sanctioning the scheme of amalgamation of Adani power Maharashtra Limited with Adani Power Limited. Subsequently, Environment Clearance for Phase I & II were transferred from Adani Power Maharashtra Limited to Adani Power Limited vide F. No. J-13012/81/2008-IA.II (T) dated; 24th April'2023. In compliance with statutory requirements, environmental quality monitoring is being done regularly at locations suggested by Sub- Regional Officer, MPCB, Bhandara. Also, three nos. of Continuous Ambient Air Quality Monitoring System have been established in three different locations inside the plant boundary as per wind rose and suggested by SRO, MPCB Bhandara. Also, 3rd party Lab (M/s Enviro Analyst & Engineers Pvt. Ltd, Mumbai) carried out environmental monitoring & analysis for the power plant.

Point wise compliance status of Environmental Clearance for Phase - I & II is furnished herewith.

Compliance status on Environmental Clearance

Phase-I: (2x660 MW) Tiroda Thermal Power Plant

Vide Letter No. J-13011/4/2008-1A-II (T) DATED 29.05.2008 &
Subsequent amendement vide Letter no. J-13011/4/2008-1A-II (T) DATED 21.03.2012 &
Transferred EC from APML to APL on 24.04.2023.

Sr. No.	Conditions	Compliance Status
(i)	The total land requirement for the project shall be restricted to 210 ha.	Complied. The project has undergone expansion. The total area has changed and the same has been approved by MoEF&CC. The total area required for all two phases are 565.84 ha.
(ii)	Sulphur and ash content in the coal to be used in the project shall not exceed 0.5 % and 29.57 % respectively.	Being Complied. Environmental Clearance amended vide F. No. J-13011/4/2008-1A-II (T) date 21.03.2012. The average Sulphur & ash contents are 0.41% and 32.53% respectively during the reporting period.
(iii)	A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipment's for SO_x, NO_x and Particulate matter. Exit velocity of flue gases shall not be less than 22 m/sec.	Bi-flue Stack containing two flues of phase-I of 275 meters is installed with On-line monitoring equipment for SO_2, NO_x & PM. Exit velocity of flue gas are more than 22m/sec.
(iv)	High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm^3.	Highly efficient Electro-Static Precipitators (ESPs) with designed efficiency of 99.97% have been installed for each boiler to meet particulate emission less than 50 mg/Nm^3. The monitoring report is enclosed as **Annexure – I & II.**
(v)	Space provision shall be kept for retrofitting of FGD, if required at a later date.	Noted. Space for installation of FGDs has been provided since construction stage. As per MoEFCC' Notification dated 05.09.2022, Tiroda TPP is falling under Category "C" Non-retiring TPP & the timelines for compliance of SO_2 emission is up to December - 2026. Accordingly, the work is under progress & shall be completed within the schedule.
(vi)	Adequate dust extraction system such as cyclones /bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Adequate air pollution control measures such as dust extraction system (bag filters followed by Cyclone) in the coal crusher and coal conveying transfer points (JNTs). Rain gun type dust suppression system in coal yard and dry fog type dust suppression system in belt conveyor have been provided.
(vii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided and its utilization to the maximum extant shall be ensured. 100% fly ash utilization shall be ensured from 5^{th} year onward. Unutilized fly ash shall be disposed-off in the ash pond in the form of High Concentrated Slurry and the bottom ash in conventional slurry mode.	Complied. 6 Nos of silos have been established for collection of dry fly ash for end users. Railway Rake/bulkers loading facility developed under the silos for bulk ash dispatch to cement manufacturing industries. Please Refer **Annexure – V** for detail of ash utilization & effort made to maximize ash utilization.
(viii)	Ash pond shall be lined with HDPE lining. Adequate safety measures shall also be	Being complied.

	implemented to protect the ash dyke from getting breached. Guard drains shall be provided all along the periphery of the ash dyke to avoid contamination of soil and surface water in case of run-off.	Well-designed ash dykes with LDPE lining have been established as per the guidelines of CPCB & SPCB. Adequate safety measures have been taken for any unforeseen incidents. Guard drains & guard pond established.
(ix)	Water requirement shall not exceed 36 MCM/year. No ground water shall be extracted for this power project, including during construction phase.	Complied. Water withdrawal from the river is well within the allocated quantity of water during reporting period. Comprehensive water audit has been conducted by "Academy of Water Technology & Environment Management" Kolkata in technical collaboration Indian Institute of Social Welfare & Business Management, Kolkata**.** The average Specific water consumption is 2.41 m^3/MWh during reporting period April' 2023 – September' 2023.
(x)	Closed cycle cooling system with cooling towers shall be provided. Cycle of concentration (COC) of at least 5.5 shall be adopted and the effluents treated as per the prescribed norms.	Being complied. Average CoC is 5.86 during the period.
(xi)	The treated effluents confirming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon for storm water. Arrangements shall be made that effluents and storm water do not get mixed.	All the effluent treated adequately & is being reused within the plant. The concept of "Zero Liquid Discharge" implemented except during monsoon period. Separate drainage network established for storm water.
(xii)	A sewage treatment plant shall be provided, and the treated sewage shall be used for raising green belt/plantation.	2x120 KL/D of Sewage Treatment Plants have been installed and are under operational. Treated water being reused in green belt development.
(xiii)	Rainwater harvesting should be adopted. Central Ground water Authority / Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Rainwater Harvesting study was carried out & report submitted to Regional Director, Central Ground Water Board, Nagpur & Member Secretary- Central Ground Water Authority, New Delhi. We have constructed 3 Nos. of rainwater harvesting structures having capacity of 12m^3 and 01 rainwater harvesting pond of capacity 394m^3 within plant to store the rainwater for further uses. Around 511m^3 of Rainwater has been harvested in the FY 2023-24 (April' 2023 – September' 2023). Rainwater harvesting details enclosed as **Annexure – VI.**
(xiv)	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Details of these measures along with location plant layout shall be submitted to Ministry as well as to the regional Office of the Ministry at Bhopal.	Adequate safety Control measures have been implemented to take preventive control measures. Fire hydrant and rain gun type water sprinklers installed in the coal yard. Details of control measures along with locations in the plant layout already submitted.
(xv)	Storage facilities for liquid fuel such as LDO to be used as auxiliary fuel in the project shall be made in the plant area where risk is minimum to the storage facilities. Adequate assessment of risk management shall be	Adequate storage & handling practices of LDO implemented as approved by Chief Controller of Explosive, Nagpur. Presently Low Sulphur containing LDO is being used. Disaster Management

	made in the Disaster management Plan for the same. Mock drills shall be conducted regularly as plan. Necessary clearance, as may be applicable to such storage under HSM Rules shall be obtained.	Plan and On-site Emergency Plan have been prepared. Mock drills are being conducted periodically to check effectiveness of control measures & preparedness of response team.
(xvi)	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained, and periodic reports shall be furnished to the Regional Office of this Ministry.	Regular monitoring of ground water was carried out around ash pond area. Monitoring results are being submitted to Regional Officer, MoEF&CC and MPCB regularly. Last monitoring report enclosed as **Annexure – I.**
(xvii)	A green belt of adequate width and density shall be developed around the plant periphery covering at least 69.64 ha of project area preferably with local species.	Complied, Green belts with local species have been developed on 258 Ha. of land in around the plant periphery, along the internal roads etc. so far, 6,25,837 saplings were planted as on Sept'23 including 52,186 saplings planted during reporting period. Around 3,22,194 m^2 area is also covered under the Green Carpet. An in-house nursery has been established to cater our sapling's requirements. The survival rate of trees maintained at more than 90%. Greenbelt details enclosed as **Annexure – VII.** In addition, we have planted 5,607 trees as part of our CSR efforts in neighboring villages in June, July, and August'2023.
(xviii)	A plan for conservation of fauna reported in the study area shall be prepared in consultation with State Forests and Wildlife Department within 3 months and shall be implemented effectively.	Complied. Conservation plan of Fauna in the study area was prepared in consultation with State Forest dept. and submitted to Wildlife warden, Govt. of Maharashtra with compliance report. The Biodiversity Policy has been formulated to protect the local Flora & fauna. We are the member of India Business & Biodiversity Initiative (IBBI). Various migratory birds & other species have been observed inside the plant premises. A detailed study on Biodiversity is being carried out by reputed agency.
(xix)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid and sanitation facilities have been provided for the drivers and contract workers during the construction phase.
(xx)	Leq. of Noise levels emanating from gas and steam turbines shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear-muffs etc. shall be provided. Workers engaged in noisy areas such as steam & gas turbines etc. shall be periodically examined to maintain audiometric records and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	Necessary actions have been taken care to maintain Ambient Noise levels within 75db(A) during plant operation. The personal protective equipment's have been provided to workers & employees working in noisy areas. Noise level monitoring is being carried out regularly and reports submitted to MoEF&CC, CPCB & MPCB. A complete medical checkup with audiometric test of workers & employees are being carried regularly.
(xxi)	Regular monitoring of ground level concentration of SO_2, NOx, SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these	Complied. Regular monitoring of PM_{10}, $PM_{2.5}$, SO_2 & NO_x as per the revised NAAQS-2009. Monitoring reports are

	levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports (six monthly) shall be submitted to the Regional Office of this Ministry.	being submitted to the MPCB monthly. Ground level concentrations of specified parameters are well within the limits. Monitoring stations have been established in consultation with the MPCB. Please refer **Annexure –I & II.**
(xxii)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	Complied. Copy of the same already submitted to your good office.
(xxiii)	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environment Management Dept. is in place lead by General Manager & supported by qualified Environment Engineers, Chemist, Horticulturist and Ash utilization team for implementation & compliance of environmental standards. • Environmental Management System (Standard - ISO 14001:2015) implemented under Integrated Management System. • NABL Accredited Environmental Laboratory (ISO/IEC 17025:2017) established for monitoring & analysis of Ambient Air quality, Water/ wastewater, Stack emission etc.
(xxiv)	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/Regional Office /CPCB/SPCB.	Complied, Six monthly compliance reports are being submitted regularly to MoEF&CC, CPCB & MPCB. The last compliance report was submitted vide our letter No. APML/EMD/MoEFCC/EC/212/05/23. dated 24.05.2023. Compliance reports are also available on www.adanipower.com.
(xxv)	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	Complied. EIA & EMP reports have been submitted to the Regional Office of MoEF&CC. Additional information is also being submitted as required.

<table>
<tr><td>(xxvi)</td><td>Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.</td><td>A separate fund has been allocated for Environmental Protection. The budgetary provisions for 2023–2024 are as follows: -
<table>
<tr><th>Sl.</th><th>Particulars</th><th>Cost (in Lac.)</th></tr>
<tr><td>1</td><td>Pollution control equipment O &M</td><td>786</td></tr>
<tr><td>2</td><td>Pollution Monitoring, Study & analysis</td><td>277</td></tr>
<tr><td>3</td><td>Green belt Development</td><td>278</td></tr>
<tr><td>4</td><td>Rural Development/CSR</td><td>185</td></tr>
<tr><td>5</td><td>Legal & consent fees</td><td>388</td></tr>
<tr><td>6</td><td>Training & Awareness</td><td>4</td></tr>
<tr><td>7</td><td>Waste Management</td><td>15000</td></tr>
<tr><td>8</td><td>Establishment of Ash Utilization Research Park</td><td>67</td></tr>
<tr><td>9</td><td>Energy Conservation Initiatives</td><td>150</td></tr>
<tr><td></td><td>Total</td><td>17135</td></tr>
</table></td></tr>
<tr><td>(xxvii)</td><td>The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.</td><td>Complied.</td></tr>
<tr><td>(xxviii)</td><td>Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bhopal /the CPCB/the SPCB who would be monitoring the compliance of environmental status.</td><td>Noted.
Full cooperation always extended.</td></tr>
<tr><td>(xxix)</td><td>The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide this Ministry's letter of even no. dated 30.03.2007, in its website and uploaded periodically and simultaneously send the same by e-mail to the Regional Office of the Ministry of Environment and Forests.</td><td>Complied
EC Compliance report is available on company web portal www.adanipower.com.
Copy of the same has also been submitted to the regional office of MoEF&CC, CPCB & MPPCB by emails.</td></tr>
<tr><td>(xxx)</td><td>Criteria pollutant levels including NOx, RSPM, (PM10 & PM2.5), Sox (from Stack & ambient air) shall be regularly monitored and results displayed in your website and also at the main gate of the power plant.</td><td>Complied.
Online monitoring data of Ambient air quality including PM_{10}, $PM_{2.5}$, SO_2 & NO_x. and Stack monitoring of PM, NOx, SO_2. being displayed at main Gate of the Plant.</td></tr>
</table>

Compliance Status of Environmental Clearance

Phase- II (3X660) MW Tiroda Thermal Power Plant

Vide Letter No. J-13011/4/2008-1A-II (T) DATED 29.05.2008 &
Subsequent amendement vide Letter no. J-13011/4/2008-1A-II (T) DATED 21.03.2012 &
EC Transfer from APML to APL on dated 24.04.2023.

Sr. No.	Conditions	Compliance Status
(i)	Only one unit of 1x660 MW shall be run on 100% domestic coal for which coal linkage from SECL is available and the other two units of 2x660 MW shall be run purely on imported coal, as per details in Para 2.	MoEFCC vide letter no. J-13012/81/2008-1A-II (T) dated 13.03.2014 has amended the condition for change of source of coal to indigenous Coal from subsidiary companies of "Coal India Limited" in place of Imported coal.
(ii)	Separate stacking arrangement shall be made for indigenous and imported coal.	Not Required as domestic coal is being used as per amended EC dated 13.03.2014.
(iii)	In case source of fuel supply is to be changed at a later stage for the 2 x 660 MW the project proponent shall come back to the ministry as the appraisal presently was done based on imported coal for 2 x 660 MW unit.	Complied. Obtained required amendment on 13.03.2014.
A	**Water & Wastewater Management**	
(iv)	No ground water shall be extracted for use in operation of the power plant even in lean season	Being Complied. We have already obtained permission from Water Resource Department (WRD) Govt. of Maharashtra for withdrawal of 70 MCM water for both phases from Wainganga River. The above quantity is adequate to meet the plant's requirement including lean season. Specific water Consumption is 2.41 m^3/MWh during reporting period (April' 2023 – September' 2023) against the notified limit 3.5 m m^3/MWh.
(v)	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant	Complied There is no water body within plant premises.
(vi)	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel / Rivers (as applicable) even in lean season.	Not Applicable Water allocation is from Dhapewada Irrigation Project, constructed and maintained by Vidarbha Irrigation Development Corporation. APML has no role in regulating the water flow downstream.
(vii)	Hydro-geological study of the area shall be reviewed annually and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quality and quantity is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken	Complied, Ground water quality is being monitored in and around the plant premises. Ground water level in nearby villages is also being monitored to know the seasonal fluctuations. CSIR – NEERI, Nagpur engaged to carry out Hydro-geological study & review from 2019 – 2022.
(viii)	Closed cycle cooling system with induced draft cooling towers shall be provided and COC of at least 5.5 shall be adopted.	Complied Average CoC is 5.86 during the period.
(ix)	The treated effluent confirming to the prescribed standards only shall be re-	Effluent treatment plant installed within the plant and treated water is being utilize/reuse within the

	circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluent and storm water do not get mixed.	premises to meet "Zero Liquid Discharge". Separate drains provided for trade effluent & storm water.
(x)	Effluent from the desalination plant shall be first treated in a guard pond before discharged, if applicable.	Not Applicable The desalination plant is not required
(xi)	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	Complied. Sewage Treatment Plants have been installed and treated water is being reused for green belt development.
(xii)	Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	Rainwater Harvesting study carried out & report submitted to Regional Director, Central Ground Water Board, Nagpur & Member Secretary, Central Ground Water Board, New Delhi. We have constructed rainwater harvesting structures having capacity 12 m^3 and 01 rainwater harvesting pond of capacity 394 m^3. Around 511m^3 of Rainfall was captured this year till September'2023. **Please refer to Annexure-VI**
(xiii)	Regular monitoring of ground water shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of the Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Being Complied. Regular monitoring of ground water quality including heavy metals is being carried out regularly in and around the project area. Piezometric wells are established around the ash pond area. Records are being maintained and the same are submitted to the Regional Office of the Ministry at Nagpur. Please Refer **Annexure – I.**
B	**Air Pollution Control**	
(xiv)	Provision for installation of FGD shall be provided.	Noted. Space for installation of FGDs have been provided since construction stage. As per MoEF&CC' Notification dated 05.09.2022, Tiroda TPP is falling under Category "C" Non-retiring TPP & the timelines for compliance of SO_2 emission is up to December 2026. Accordingly, the work is under progress & will be installed within the schedule.
(xv)	High Efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50mg/ Nm^3.	ESP designed efficiency of 99.97% (ESPs of 10 fields) installed for each boiler to meet permissible norm for particulate emission of less than 50 mg/Nm^3.
(xvi)	Adequate dust extraction system such as cyclones /bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Complied. Adequate air pollution control measures such as dust extraction system (Cyclone followed by bag filters) in coal crushers and rain gun type dust suppression system in coal yard and dry fog type dust suppression system in the belt conveyor with insertable dust collector at transfer points have

		been installed to meet particulate matter emission within the norms.
(xvii)	Green Belt consisting of 3tiers plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width Shall be raised and adequate justification shall be submitted to the ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 70%.	Complied, Green belts with local species have been developed on 258 Ha. of land in around the plant periphery, along the internal roads etc. and 6,25,837 saplings were planted as on Sept'23 including 52,186 saplings planted during reporting period. In addition to the above, around 3,22,194 m^2 area is also covered under the Green Carpet. An in-house nursery was established to cater to our sapling's requirements. The survival rate of trees maintained at more than 90%. Greenbelt details enclosed as **Annexure – VII.** In addition, we have planted 5,607 trees as part of our CSR efforts in neighboring villages in June, July, and August'2023.
(xviii)	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressor etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.	Necessary actions have been taken care to maintain ambient noise levels within 75 db(A) during plant operation. The working personals provided with appropriate personal protective equipment and periodic audiometric check-up is being carried out and records are being maintained. Monitoring report is enclosed as **Annexure – I & II.**
C	**Fly Ash Management**	
(xix)	Utilization of 100% Fly Ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Fly ash is being utilised as per the Fly Ash Notification 2021 and amendments. We have extended facilities to maximise utilisation of ash. Monthly Ash generation and utilisation status has been updated in the CPCB Coal Ash Portal, and a six-monthly report has also been submitted to CEA. **Please see Annexure- V.**
(xx)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed-off in low lying area.	Complied. 6 Nos of silos have been constructed for collection of dry fly ash for downstream user. Railway Rake/bulkers loading facility developed under silos for bulk ash dispatched to user, cement making units. Un-utilized ash disposed-off in ash pond through HCSD mode. Heavy metals are being analyzed in Bottom Ash and Ash Pond effluent, and reports enclosed as **Annexure-VIII**.
(xxi)	Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Complied. Well-designed Ash dyke with HDPE lining have been established as per guidelines of MoEF&CC, and CPCB. We have stabilized/reclaimed Ash Dyke-2 and developed greenbelt/ plantation. Please see the photographs in **Annexure -VII (page - 4**)

(xxii)	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) it shall be ensured that the Bottom and sides of the mined-out area are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.	Being Followed. We will inform Maharashtra Pollution Control Board well in advance. If any scope for.
(xxiii)	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Regular monitoring of ground water quality including heavy metals is being carried out in and around the project area. Piezometric wells are established around the ash pond. Records are maintained and the same being submitted along with compliance report. Please refer **Annexure – I.** We have engaged CSIR – NEERI, Nagpur to carry out Fly Ash Leachability Study since 2019 up to 2022.
D	**Disaster Management**	
(xxiv)	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to Ministry as well as to the regional Office of the Ministry.	Adequate safety team with safety control measures is available in the plant site to take preventive control measures. Fire hydrant and rain gun type water sprinklers were established in the coal yard. Details of control measures and location within the plant layout have already been submitted to your good office.
(xxv)	Storage facilities for auxiliary liquid fuel such as LDO and / HFO/LSHS shall be made in the plant area in consultation with Department of Explosive, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster management plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Adequate storage & handling practices of LDO implemented as approved by Chief Controller of Explosive, Nagpur. Presently Low Sulphur containing LDO is being used. Disaster Management Plan and On-site Emergency Plan have been prepared. Mock drills are being conducted periodically to check effectiveness of control measures & preparedness of response team.
E	**CSR/RCR Plan**	
(xxvi)	A good action plan for R & R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy within three months from the date of the issue of this letter.	Approved R&R plan implemented. Indian Institute of Social Welfare and Business Management (IISWBM), Kolkata carried out R&R audit. The study report has been already submitted along with the EC compliance report.
(xxvii)	An amount of Rs. 66.0 Crores shall be earmarked as one-time capital cost for CSR programme. Subsequently a recurring expenditure of Rs. 13.20 Crore per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	Under the CSR program Rs. 66.157 Crores has been incurred (including Rs. 2.706 crores during FY 2022-23) and the budget provision of Rs 1.85 Crores for 2023-24 under Community Health promotion & facilitation, Sustainable Livelihood, Creating Rural Infrastructure, Promotion of Education, Skilled development etc. During COVID 19 pandemic, supported to civil hospital by supply & installation of Oxygen Plant, others medical material and vaccination drives. CSR Progress report enclosed as **Annexure – IX.**

(xxviii)	While identifying CSR programme the company shall conduct need-based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruits bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs. In addition, a special scheme for upliftment of SC/ST's and marginalized population in the study area out of CSR programme shall be formulated and submitted to the Ministry within six months along with firm commitment of implementation. The scheme shall have an in – built monitoring mechanism.	Need Base Assessment Study for CSR programs prepared, and report already submitted to MoEF&CC. Need Base plan implemented in nearby villages including individuals who are economically weak to undertake some economic activity that would help them to achieve sustainable livelihood and financial independence. We have established a Skill Development Center (ASDC) for skill development of SC/ST and marginalized populations from Gondia and Bhandara districts. As on date, a total of 3,409 candidates have undergone training at our facility. Among these candidates, 1,320 were trained in domain-specific trades, while 2,089 received training in non-domain trades. It is noteworthy that all our trained candidates have achieved a 100% pass rate. Furthermore, the placement success rate for candidates trained in domain-specific trades consistently exceeds 90%. ASDC report is enclosed as **Annexure- X.**
F	**General**	
(xxix)	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	Complied No natural drain disturbed due to plant activities.
(xxx)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid and sanitation facilities were provided for the drivers and contract workers during the construction period.
(xxxi)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Labour hutments have been established with all required facilities & infrastructure during construction phase.
(xxxii)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment & Forests at http://envfor.nic.in.	Complied. Copy of the same already submitted to your good office with compliance report.
(xxxiii)	A copy of clearance letter shall be sent by the proponent to concern panchayat, Zila parisad/municipal corporation, urban local body and the local NG, if any from whom suggestions/representations, if any received	Complied. Copy of EC and other required documents have been provided to Zila Parishad & Gram Panchayat.

	while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	
(xxxiv)	A separate environment management cell with qualified staff shall be setup for implementation of the stipulated safeguards.	A separate Environment Management Dept. is in place lead by the General Manager & supported by qualified Env. Engineers, Chemist, Horticulturist and Ash utilization team for implementation of environmental safeguards - Environmental Management System (Standard: ISO 14001:2015) implemented under Integrated Management System. - NABL Accredited Env. Laboratory (ISO/IEC 17025 :2017) established to monitor & analyses Ambient Air, quality Water/wastewater, Stack emission etc.
(xxxv)	The proponent shall upload the status of compliance of stipulated EC conditions, including the results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF, the respective zone of CPCB & the SPCB. The criteria pollutant level namely; SPM, RSPM (PM10, PM2.5), SO2 and NOx (ambient level and stack emission) shall be displayed at the convenient location near the main gate of the company in the public domain.	Complied, Six monthly compliance reports are being submitted regularly to MoEF&CC, CPCB & MPCB. The last compliance report was submitted vide our letter No. APML/EMD/MoEFCC/EC/204/11/22. dated 24.11.2022. Compliance reports are also updated and available on www.adanipower.com Online monitoring data of Ambient air quality including PM_{10}, $PM_{2.5}$, SO_2 & NO_x. and Stack monitoring of PM, NO_x, SO_2. being displayed at main Gate of the Plant.
(xxxvi)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB	Complied, Six monthly compliance reports submitted regularly to the MoEFCC, CPCB & MPCB in soft by email. The last compliance report was submitted vide letter No. APML/EMD/MoEFCC/EC/212/05/23 dated 24.05.2023.
(xxxvii)	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail	Environmental statement of FY 2022 – 23 has been submitted to MPCB on 25.09.2023. Please refer **Annexure -XI.**
(xxxviii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of	Six monthly Environmental Clearance compliance status reports are regularly submitted to MoEFCC, CPCB & SPCB. The same is sent by email also. Compliance status is also uploaded on https://parivesh.nic.in. and on company website www.adanipower.com.

<table>
<tr><td></td><td>compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.</td><td></td></tr>
<tr><td>(xxxix)</td><td>Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.</td><td>Complied.
EIA & EMP reports have been submitted to the Regional office of MoEF&CC. Additional information also being submitted as required.
Compliance reports are available on https://parivesh.nic.in.</td></tr>
<tr><td>(xi)</td><td>Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry</td><td>A separate fund has been allocated for Environmental Protection. The budgetary provisions for 2023–2024 are as follows: -
<table>
<tr><th>Sl.</th><th>Particulars</th><th>Cost (in Lac.)</th></tr>
<tr><td>1</td><td>Pollution control equipment O &M</td><td>786</td></tr>
<tr><td>2</td><td>Pollution Monitoring, Study & analysis</td><td>277</td></tr>
<tr><td>3</td><td>Green belt Development</td><td>278</td></tr>
<tr><td>4</td><td>Rural Development/CSR</td><td>185</td></tr>
<tr><td>5</td><td>Legal & consent fees</td><td>388</td></tr>
<tr><td>6</td><td>Training & Awareness</td><td>4</td></tr>
<tr><td>7</td><td>Waste Management</td><td>15000</td></tr>
<tr><td>8</td><td>Establishment of Ash Utilization Research Park</td><td>67</td></tr>
<tr><td>9</td><td>Energy Conservation Initiatives</td><td>150</td></tr>
<tr><td></td><td>Total</td><td>17135</td></tr>
</table></td></tr>
<tr><td>(xii)</td><td>The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant</td><td>Complied.</td></tr>
<tr><td>(xiii)</td><td>Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.</td><td>Noted.
Full cooperation always extended.</td></tr>
<tr><td colspan="3">Additional Conditions (EC Amendment)</td></tr>
<tr><td>(xiv)</td><td>The coal transportation by road shall be through tarpaulin covered trucks for a maximum period of two years and hence forth shall be only through mechanically covered trucks.</td><td>Complied
Coal is being transported through Rail only and unloaded within plant premises at Wagon Tipplers & Track Hopper.</td></tr>
</table>

(xv)	Avenue plantation of 2/3 rows all along the road shall be carried out by the project proponent at its own expense.	Thick Plantation has been done all around the Plant boundary.
(xvi)	Periodic maintenance of the road shall be done by the project proponent at its own expense and shall also facilitate the traffic control on the road.	Complied. All internal roads are black topped or concreated and being maintained.
(xvii)	Sulphur and ash contents in the domestic coal to be used in the project shall not exceed 0.4 % and 33% at any given time. In case of variation of coal quantity at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.	We are using washed coal from SECL and blended with raw coal. We have also installed Real time Coal Ash Analyzers to monitor ash content. MPCB officials also collected coal samples time to time and analysis results are well within the stipulated limit. Quarterly Ash content report is being submitted to MoEF&CC regional office. During the reporting period, the average ash content for Qtr.1 is 33.28%, while for Qtr.2 it is 31.07%.
(xlvii)	A long-term study of radio activity and heavy metals content on coal to be used shall be carried out through a reputed institute. Thereafter, mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Being Complied. We have carried out testing of radioactive analysis in coal from Board of Radiation & Isotope Technology (BRIT), Dept. of Atomic Energy, Govt. of India, Mumbai in FY 2017-18, 2018-19 and 2019-20. We have also done Heavy metal analysis in coal from Atomic Minerals Directorate for Exploration and Research, Dept. of Atomic Energy, Govt. of India, Hyderabad.
(xviii)	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the regional office of the Ministry.	Solar panels installed at the roof top of Administrative Building to cater domestic power requirement. In addition to above, solar streetlights have been installed along the ash dyke area. Under CSR activities, we have installed more than 200 solar street- lights in nearby villages.
(xix)	Mercury emission from the stack shall also be monitored on periodic basis.	Being complied. Mercury emission from the stack is being monitored & reports are being submitted. Please refer **Annexure – I.**
(l)	Fugitive emission shall be controlled to prevent impact on agricultural or non-agricultural land.	To control fugitive emission, Rain gun type water sprinkling system has been installed in coal yard. All coal conveying belts conveyors are covered and fog type dust suppression system provided. Adequate water sprinkling arrangements have been made in wagon tipplers and track hoopers to mitigate dust emission during coal un-loading by rail. Closed coal conveyor belts have been established. Cyclones followed by bag filters are provided at each coal transfers points (JNT's). Additionally, mobile water sprinklers are deployed at CHP area to suppress fugitive dust while movement of vehicles.
(li)	Source sustainability study of water requirement shall be carried out by an institute of repute. The study shall also specify the source of water for meeting the	VIDC has developed & operating Dhapewada Barrage on River Wainganga for water supply. However, we have undergone source sustainability

	requirement during lean season. The report shall be submitted to the Regional Office of the Ministry within six months.	study of River Wainganga by "Academy of Water Technology Environ Management" Kolkata in technical collaboration Indian Institute of Social Welfare and Business Management – Kolkata and CSIR–CGCRI, Kolkata. The final report already submitted along with compliance report.
(liii)	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as on option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.	Fly Ash is being utilised as per Fly ash Notification. CSIR – NEERI, Nagpur engaged for carry out Fly Ash leachability Study, Bioaccumulation and Magnification study. Details of the same were submitted to Ministry with previous compliance report.
(liv)	Three tire green belt shall be developed all around Ash Pond over and above the Green Belt around the Plant Boundary.	A thick plantation/green belt has been developed around the Ash Pond area. Our efforts are being made to develop more & more greenery inside the plant premises. Closed dyke also covered with soil layer & dense green belts. Please refer **Annexure -VII (page-4)**
(lv)	Social audit for the CSR Scheme shall be carried out periodically by reputed university or an institution as per the CSR guidelines of Government of India and Details to be submitted to MoEF besides putting it on company's website.	Social Audit has been carried out by Indian Institute of Social Welfare & Business Management, **University of Kolkata.** Study report already submitted to your good office along with EC compliance report of April 2019 to Sept 2019.
(lvi)	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to Head of the Organization. The environmental Cell shall be responsible and accountable for implementation of all the conditions given in the EC including in the amendment letter.	A separate Environment Management Dept. is in place lead by the General Manager & supported by qualified Env. Engineers, Chemist, Horticulturist and Ash utilization team for implementation of environmental safeguards - Environmental Management System (Standard ISO 14001:2015) implemented under Integrated Management System. - NABL Accredited Env. Laboratory (ISO/IEC 17025:2017) established to monitor & analyses Ambient Air Quality, Water/wastewater, Stack emission monitoring etc.
(vii)	Monitoring of surface water quantity and quality shall also be regularly conducted, and record maintained. The monitoring data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Monitoring of surface water and ground water quality including heavy metals is being done on a regular basis and records maintained. Please refer **Annexure – I.**

(iviii)	The environmental statement for each financial year ending 31st March in Form – V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliances of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Environmental statement of FY 2022 – 23 has been submitted to MPCB on 25.09.2023. Please refer **Annexure -XI.**
(iix)	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy stipulated in this clearance letter and other applicable environment laws and regulations.	We have implemented ISO 14001:2015 under Integrated Management System, which consists of Environment, Health & Safety, Quality and Energy Management Systems. We have also formulated a Corporate Policy as per the requirements of the Integrated Management System (IMS). Biodiversity Conservation Policy has already been framed and incorporated into the existing IMS policy. We are members of the Indian Biodiversity Business Initiative (IBBI) as initiated by MoEF&CC. IMS is Integrated with International Finance Corporation (IFC) Performance and complies with IFC standards on Environmental Management. We are pleased to inform you that use of "Single Use Plastics" have been completely restricted in the plant premise. We have also integrated Water Efficiency Management, Business Continuity Management, Asset Management System and IRBC with the IMS system in FY 2021–22.

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SIX MONTHLY ENVIRONMENTAL MONITORING REPORT

FOR
The Period of April 2023-September2023

of

ADANI POWER LIMITED
Tirora, Growth Center,
MIDC, Gondia – 441 911

Prepared by

Recognised by MoEF (GOI) under GSR No. 983 dated. 2.5.2014
NABET Accredited and ISO 9001: 2000Certified Organisation

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Foreword

The protection of environment plays a crucial role in maintaining the local environment quality for any industry, throughout their production, hence compliance of the statutory requirements becomes very important to conserve the ecological balance within and surrounding the plant area. Therefore, environment protection is becoming a prerequisite for sustainable development. In line with this requirement, the management of ***Adani Power Ltd****. has adopted a corporate responsibility of development and top priority is given for environment protection.*

In order to comply with the Environment protection act, to fulfill statutory requirement and to be in tune with Environmental Preservation and sustainable development ***Adani Power Ltd.****, has retained* ***Enviro Analysts and Engineers Pvt. Ltd.*** *as Environment Consultants and for various Environmental issues related to their Power Plant.*

This report presents the Environmental Status for the period ***Apr.2023-Sept. 2023*** *as a compliance to the statutory requirements.*

The co-operation extended by the Staff and Management of Adani Power Ltd. during the work execution period is gratefully acknowledged.

For **ENVIRO ANALYSTS & ENGINEERS PVT. LTD.**

Authorized Signatory

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Chapter – 1

Introduction

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Scope of work

1.0 INTRODUCTION.

The Adani Power Limited, Tiroda coal-based Thermal Power Plant at Tiroda Growth Centre of MIDC (Maharashtra Industrial Development Corporation) area near Tiroda, District Gondia of Maharashtra. The Plant capacity is 3300 MW and established in two Phases as below : -

Phase I: 2 x 660 MW
Phase II: 3 x 660 MW

1.1 Scope of Work.

The scope of work includes the data generation for various environmental components viz Meteorology, Air, Noise, Water, Stack, Effluent and soil of Adani Power Limited, Tirora.

To monitor the environmental parameters and data analysis in the vicinity of the power plant of 5x660MW at MIDC Area Tiroda, APL awarded the service to M/s Enviro Analysts & Engineers Pvt. Ltd. (EAEPL), Mumbai.

The present report incorporates data of various Environmental parameters for APR. 2023 - SEPT. 2023

Chapter – 2

Details of sampling Locations

&

Methodology for sampling and analytical procedures

2.0 DETAILS OF SAMPLING LOCATIONS.

The details of sampling location w. r. t. Air, Water and Noise quality around the power plant are shown in the Sampling location Map as depicted in Figure.2.1

2.1 Meteorology and Ambient Air Quality.

Meteorological data was collected at one station concurrently with the ambient air quality monitoring. The weather station was placed on the roof top at a height of 10m. Wind speed, wind direction, relative humidity and temperature & Rainfall were recorded at hourly intervals contineously.

The sampling locations of Ambient Air Quality in the Power plant premises covering upwind and down wind direction . To assess the effect of industrial activity of power plant on the air, environmental parameters like Particulate Matter-PM_{10}, Particulate Matter-$PM_{2.5}$, Sulphur Dioxide-SO_2, Nitrogen Dioxide –NO_2 were monitored Details of the sampling locations with respect to the plant site are given below in **Table-2.1** .

Table 2.1 Ambient Air Quality Monitoring Location

Code	Name of the monitoring Station	Distance from plant boundry (km)	Direction with respect to plant	Environmental Setting	Remarks
A1	**Near AWRS**	Within Plant	-	Within Plant	Industrial area
A2	**Near Brick Plant**	Within Plant	-	Within Plant	Industrial area
A3	**Near China colony**	Within Plant	-	Within Plant	Industrial area

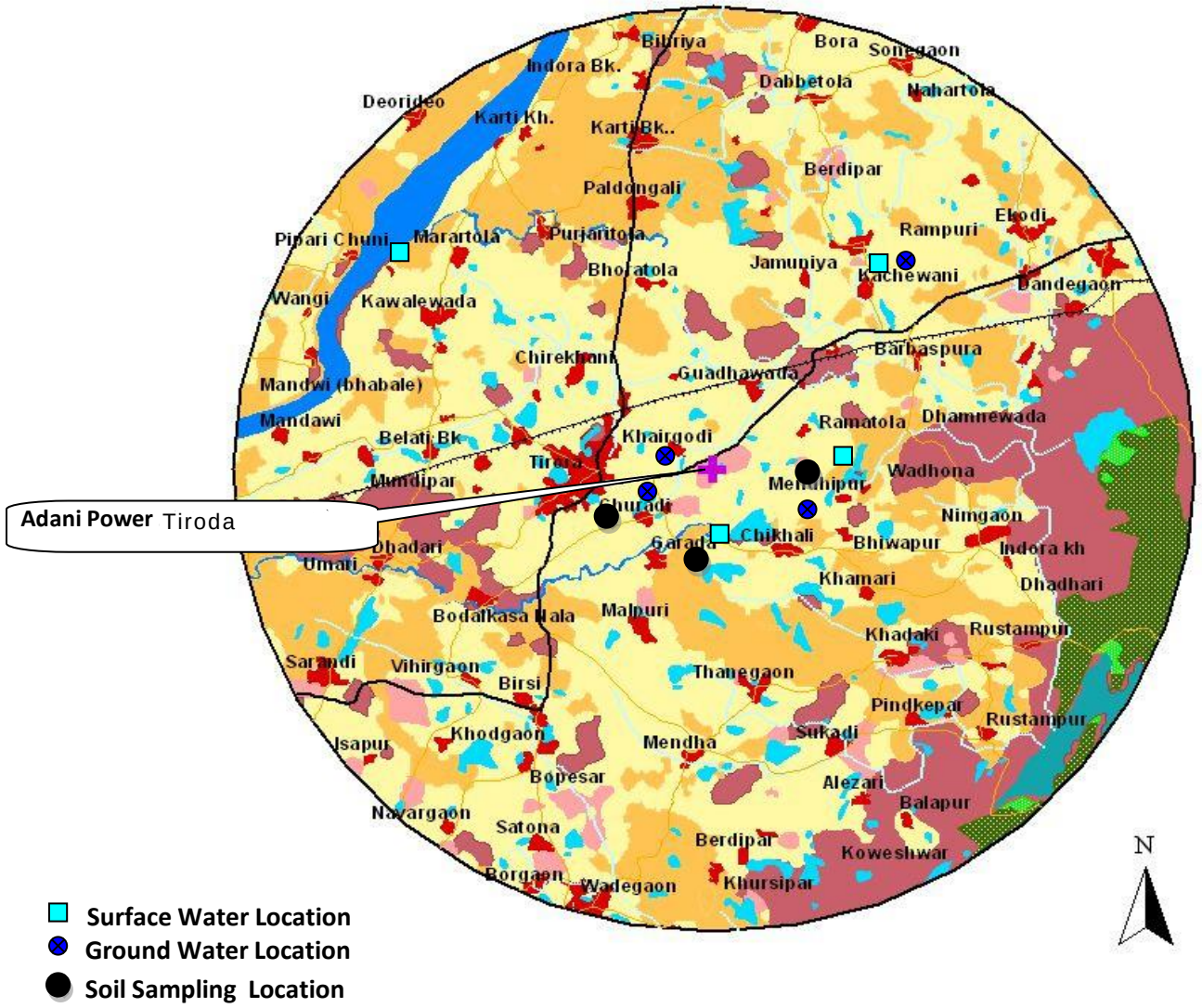


Figure : 2.1 SAMPLING LOCATIONS MAP

2.2 Water Quality

Water samples were collected at various locations within the area of 10 Km radius from the plant to assess the Physico-Chemical quality of Surface and Ground Quality water. Samples were collected as per the standard procedures. On site Parameters like Temperature, Electrical Conductivity, pH and Dissolved Oxygen were analyzed at-site using portable water analysis kit. Samples were collected by taking suitable precautions for preparation and transportation, particularly using sterilized bottles for bacteriological analysis. The details of the sampling locations are given in **Table-2.2** and **Figure.2.1** as depicted.

Water samples were collected on quarterly basis from 8 locations (Ground water 4, Surface water-4 Analytical methods mentioned in IS: 3025 and Standard Methods published by APHA were followed.

TABLE-2.2 WATER SAMPLING LOCATIONS

Surface Water				
Code	**Name of the monitoring Station**	**Distance from plant boundry (km)**	**Direction respect to plant**	**Source**
SW1	**Wainganga River Water**	**7.0**	**NW**	**River**
SW2	**Mendipur Pond Water**	**2.0**	**SE**	**Pond**
SW3	**Garada Village Nalah water**	**3.0**	**SSW**	**Nalah water**
SW4	**Kachewani Pond water**	**3.0**	**NE**	**Pond water**
Ground Water				
GW1	**Kachewani Hand Pump**	**3.2**	**NE**	**Bore well**
GW2	**Mendipur Hand Pump**	**2.5**	**SE**	**Bore well**
GW3	**Garada Hand Pump**	**3.2**	**SW**	**Bore well**
GW4	**Chikhali Hand Pump**	**2.0**	**S**	**Bore well**
Waste Water				
WW1	**Cooling Tower Blow Down water Unit-1**			**In Plant**
WW2	**Cooling Tower Blow Down water Unit-2**			**In Plant**
WW3	**Cooling Tower Blow Down water Unit-3**			**In Plant**
WW4	**Cooling Tower Blow Down water Unit-4**			**In Plant**
WW5	**Cooling Tower Blow Down water Unit-5**			**In Plant**
WW6	**Boiler Blow down Water Unit-3**			**In Plant**
Piezometric Well water				
P1	**Near AWRPH**			**In Plant**
P2	**B/H Ash dyke -1**			**In Plant**
P3	**Near Raw Water pump house -02**			**In Plant**

2.3 Noise Level:

Noise level at following in plant location and Buffer zone location were recorded by APL for the period of APR. 2023 - SEPT. 2023. Location details are given in **Table-2.3**. and as depicted in **Figure.2.1**

TABLE: 2.3 NOISE LEVEL LOCATIONS FOR THE PERIOD OF Apr.2023- Sept.2023

Code	Location	Location type	Remarks
NL- 1	Inside the plant	Near Shanti Niketan I, II & III	Industrial
NL- 2		Near Labour Hutment	Industrial
NL- 3		Near Store Area	Industrial
NL- 4		Gate No.1	Industrial
NL- 5		Gate No.2	Industrial
NL- 6		Gate No.3	Industrial
NL-7		Near OHC	Industrial
NL-8		Railway Siding	Industrial
NL-9		Near Reservoir 2	Industrial
NL-10		Near Ash Water Recovery Pump House	Industrial
NL-11		In China Colony	Industrial

2.4 Soil Quality:

Soil Samples collected at 3 locations around the plant zone on the seasonal basis for the period of Apr.2023-Sept. 2023 Location details are given in **Table-2.4**. and as depicted in **Figure.2.1**

TABLE: 2.4 SOIL SAMPLING LOCATIONS FOR THE PERIOD OF APR. 2023 - SEPT. 2023

Code	Location	Location type	Remarks
S1	Buffer Zone	Garada Village	Agricultural Field
S2		Mendipur Village	Agricultural Field
S3		Churadi Village	Agricultural Field

2.5 Methodology of Monitoring

2.5.1 Instruments Used

Samples were collected at *'Ambient Air'* monitoring locations' using standard *Fine dust sampler &* RDS sampler for monitoring PM_{10}, $PM_{2.5}$, SO_2, NO_2, concentrations and analyzed as per *USEPA / IS* methods in APL Laboratories at site

Also Continuous Ambient Air Monitoring station installed (CAAQMS) at APL make Tyledyne and Met One instrument approved by USEPA.

On site Micro-meteorological data for wind direction, wind Speed, Temp, Relative humidity and Rainfall collected from APL.

Ground water, Surface water & Effluent water were analyzed for onsite parameters likeTemperature, Electrical Conductivity, pH and Dissolved Oxygen were analyzed on-site using portable water analysis kit**.** Samples are collected, preserved and sent for further analysis to Enviro Analysts & Engineers Pvt. Ltd, where other parameters like total hardness, chlorides, sulphate etc and heavy metals are analyzed as per requirements IS 3025/APHA methods.

Soil samples were analyzed for physical, chemical and heavy metal concentrations, using analytical methods.

Noise was measured at site locations using a noise level meter to determine sound levels in a scale as dB (A) This is suitable for audible range of 20 to 20,000 Hz for human being. Sound level monitoring done by APL.

Stack Monitoring kit having sensor probe was used to monitor stack data like Flue gas velocity, Volumetric flow of flue gas, Temperature of flue gas, Moisture content and other parameters like SPM, SO_2, NO_2 make by ECOTECH.

2.5.2 Method of Analysis

Air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB), EPA & IS method.

2.5.2.1 Meteorology

Micro-meteorological data was observed for wind direction and speed using wind vane and anemometer using an automatic met logger. The data was recorded at 1 hour interval. Wind speed & wind direction, Temperature, Rain fall, Relative humidity were recorded by Weather Monitoring Station by APL.

2.5.2.2 Ambient Air Quality (AAQ)

Sampling was carried out at each station during the stipulated study period using pre-calibrated Respirable Dust Samplers and Fine Dust Sampler in each of the stations by APL. Earmarked samples were collected for Particulate Matter-PM_{10}, Particulate Matter-$PM_{2.5}$, SO_2 and NO_2 for 24 hourly. The baseline data of air environment is generated for the parameters namely: Particulate Matter-$PM_{10,}$ Particulate Matter-$PM_{2.5}$, Sulphur Dioxide $SO_{2,}$ and Nitrogen Dioxide NO_2 in APL

2.5.2.3 Stack Monitoring

Stack emissions were analyzed with the help of stack Kit (ECOTECH Stack Kit & Prob set, quarterly basis at Boiler Stack situated in plant. The height of the Boiler Stack was noted as, 275 m and I.D. 7.4m.Flue gas, Velocity, Temperature, Volume & Qty, Moisture Content, PM, SO_2, NO_2, Hg were analyzed. The values obtained were then compared vis-a-vis with the standards prescribed by CPCB. Iso-kinetic stack monitoring was conducted as per standard method IS 11255 (Part-3) specified in Emission Regulation Act Part to determine PM, SO_2 and NO_2, Data was collected, and analysis was done for other parameters like Flue gas Velocity, Temperature, Volumetric flow rate, Moisture contents.

2.5.2.4 Water/Waste Water Quality

Water/Waste water samples were collected for physico-chemical and bacteriological parameters taking suitable Precautions. Temperature, pH, Dissolved Oxygen and Electrical conductivity were measured in the field while collecting the samples. Sterilized bottles were used to collect samples for bacteriological analysis, stored in ice and transported to the Laboratory.

Ground and surface water samples were analysed as per IS: 10500 and Waste Water samples were analysed as per IS: 3025. The analytical methods mentioned in IS: 3025 and Standard Methods published by APHA were followed. MPN Index of coli forms was found as per standard methods (IS: 1622).

2.5.2.5 Noise Level

Noise is defined as unwanted sound that creates interferences in speech, communication, causes annoyance, disturbance in work concentration and sleep, thus deteriorating the quality of Noise environment. In the present study, Noise monitoring has been conducted regularly by APL Since loudness of sound is the important parameter to assess the effects of particular activities on human

being, hence noise level is measured for noise environment assessment. Hourly Sound Pressure level (SPL) was recorded with Sound Level Meter for 24 hours.

2.6 Analytical Procedures

2.6.1 Meteorology

The data obtained from field is used to as certain the wind percentage frequencies in the sixteen directions for wind speeds using Beaufort's scale in the range of 0-1.8, 1.8-3.6, 3.6 – 7.2, 7.2 – 14.4, 14.4 – 28.8 and >28.8 kmph. Average wind roses at twenty four hourly are prepared from the data collected. Temperature, Relative Humidity is monitoring by Automatic Weather Monitor (WM 271, Envirotech) and Rain fall by using Rain Gauge of WM 271.

2.6.2 Ambient Air Quality

Whatman GF/A & PTFE filter paper was used in Respirable dust sampler RSPM and FDS and weighed in Mettler electronic balance and computed as per standard methods.

Ambient Air samples were analyzed for SO_2 concentration levels by using Improved West-Gaeke method using spectrophotometer (HACH DR 5000) at a wavelength of 560 nm. NO2 conc. levels were estimated using Jacob and Hocheiser modified (Na-As) method using spectrophotometer (HACH DR 5000) at a wavelength of 540 nm

Sampling and Analytical Techniques

The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table-2.5**

TABLE- 2.5 (TECHNIQUES USED FOR AMBIENT AIR QUALITY MONITORING)

Sr. No.	Parameter	Technique	Technical protocol	Minimum detectable limit (µg/m^3)
1	PM10	Respirable Dust Sampler (Gravimetric Method)	IS-5182 (Part-IV)	5.0
2	PM2.5	Fine Respirable Dust Sampler (Gravimetric Method)	IS-5182 (Part-IV)	5.0
3	Sulphur dioxide	Improved West & Gaeke Method	IS-5182 (Part-II)	4.0
4	Nitrogen dioxide	Modified Jacob & Hochheiser Method	IS-5182 (Part-VI)	4.0

Chapter – 3

DATA ANALYSIS

3.0 DATA ANALYSIS

Environmental monitoring for the period of APR. 2023 - SEPT. 2023 consisted of collection and analysis of meteorological parameters, ambient air quality and ground water and surface water quality at different locations within study area selected for carrying out environmental monitoring around the plant site.

3.1 Meteorology

Meteorological data was collected by APL on hourly basis for wind speed, Wind direction, temperature and relative humidity continuously. Total Rain fall on monthly basis during the period of Apr. 2023-Sept.2023 was measured and recorded and reported in the Environmental report.

Wind Pattern for the period APR. 2023 - SEPT. 2023.

The data recorded during the study period was analyzed and the daily maximum, minimum and total of all the parameters were observed. The summary of all the meteorological observations is given in **Table-3.1**.

TABLE- 3.1 METEOROLOGICAL DATA MONITORED AT SITE

(for the period of APR. 2023 - SEPT. 2023)

Month	Temperature (^{0}C)		Relative Humidity (%)		Rainfall (mm)
	Max	Min	Max	Min	(Total)
Apr.2023	42.1	16.6	79.6	10.7	50.7
May 2023	44.2	18.4	79.1	13.1	4.0
Jun. 2023	44.6	22.9	99.3	16.5	204.6
Jul. 2023	38.0	25.9	99.7	42.8	478.8
Aug. 2023	38.3	24.4	99.5	42.2	267.8
Sept. 2023	39	23.4	99.8	43.6	392.2

Temperature

The Temperature for the month of APR. 2023 - SEPT. 2023 was found to be within range of 16.6°C – 44.6°C.

Relative Humidity

The average relative humidity for the month of APR. 2023 - SEPT. 2023 was found to be within range of 10.7-99.8%.

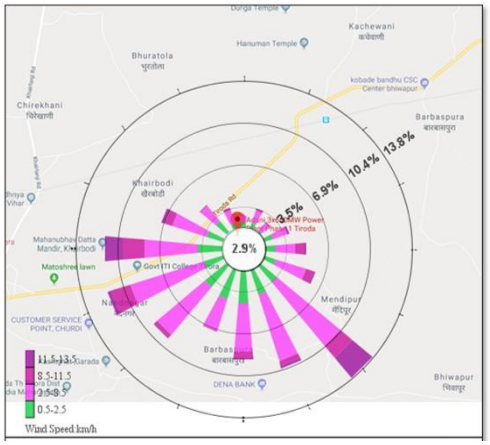
Rain Fall

Total Rain fall found the period of APR. 2023 - SEPT. 2023 was 1398.1mm

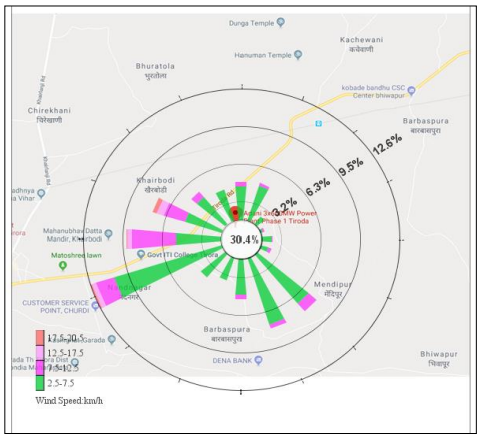
Wind Speed/Direction

The wind speed and direction data collected during the period of APR. 2023 - SEPT. 2023. The wind roses plot using the collected data for APR. 2023 - SEPT. 2023 is given in **Figure-3.1**

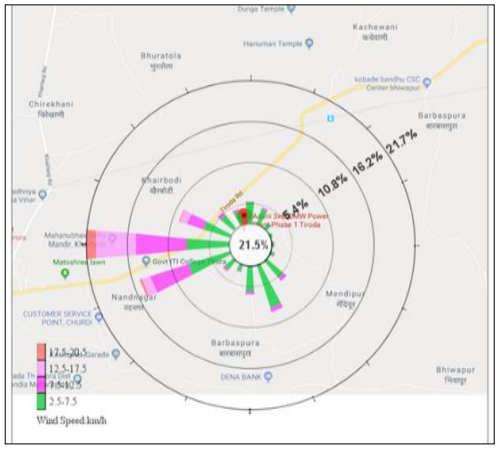
The first predominant wind direction during APR. 2023 - SEPT. 2023 was W. The calm condition ranges from 1.2 to 30.4%.



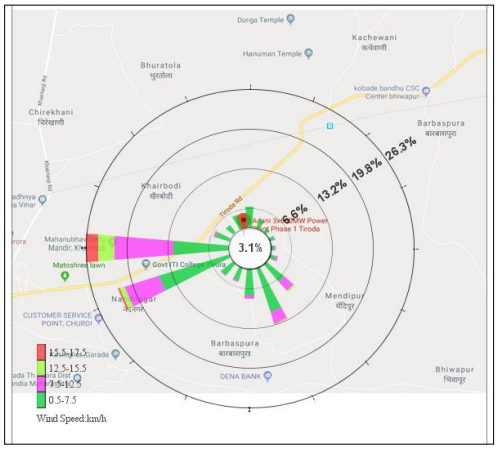
Wind rose for Apr. 2023



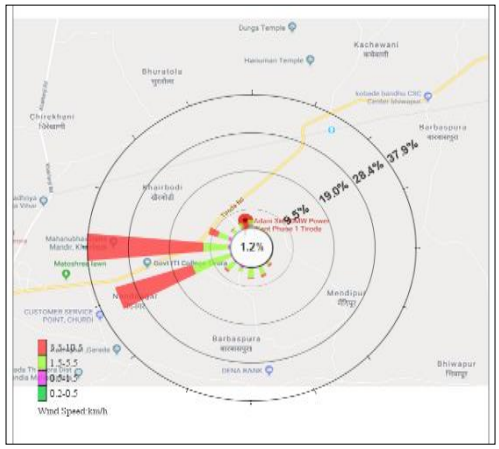
Wind rose for May. 2023



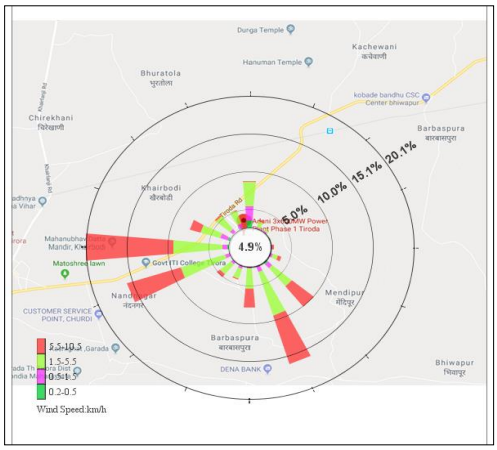
Wind rose for Jun. 2023



Wind rose for Jul. 2023



Wind rose for Aug. 2023



Wind rose for Sept. 2023

FIGURE-3.1 SITE SPECIFIC WINDROSE FOR APR. 2023 - SEPT. 2023

3.2 Ambient Air Quality

Ambient air quality has been carried out within plant for the period of APR. 2023 - SEPT. 2023. PM_{10}, $PM_{2.5}$, SO_2 & NO_2, sampling at all the locations is done for 24 hours average twice a week by APL. The values obtained were then compared vis-a-vis the standards prescribed by CPCB for Industrial/ Rural / Residential uses.

3.2.1 Presentation of Results.

The summary of Ambient Air Quality monitoring results for the period of APR. 2023 - SEPT. 2023 are presented in detail in **Table 3.2** for Inside plant area. 98th percentile; maximum and minimum values etc have been computed from the collected raw data for all the AAQ monitoring station. The data has been compared with the standards prescribed by Central Pollution Control Board (CPCB)/NAAQ for residential and rural zone.

Particulate Matter-PM10

The minimum and maximum concentrations during APR. 2023 - SEPT. 2023 in the plant area location for Particulate Matter-PM_{10} were recorded as 15.7 μg/m^3 and 90.1 μg/m^3 respectively. The minimum concentration was recorded at Near Chaina Colony (A3) and maximum concentration at Near AWRS (A1).

Particulate Matter-$PM_{2.5}$

The minimum and maximum concentrations in the plant area location for $PM_{2.5}$ were recorded as 8.7μg/m^3 and 59.7 μg/m^3 respectively. The minimum concentration was recorded at Near Chaina Colony (A3) and Maximum concentration was recorded at Near Brick Plant (A2).

Sulphur Dioxide (SO_2)

The minimum and maximum SO_2 concentrations in the plant area location were recorded as 6.0μg/m^3 and 26.4 μg/m^3 respectively. The minimum concentration was recorded at Near Chaina Colony (A3) and maximum concentration was recorded at Near Chaina Colony (A3) respectively.

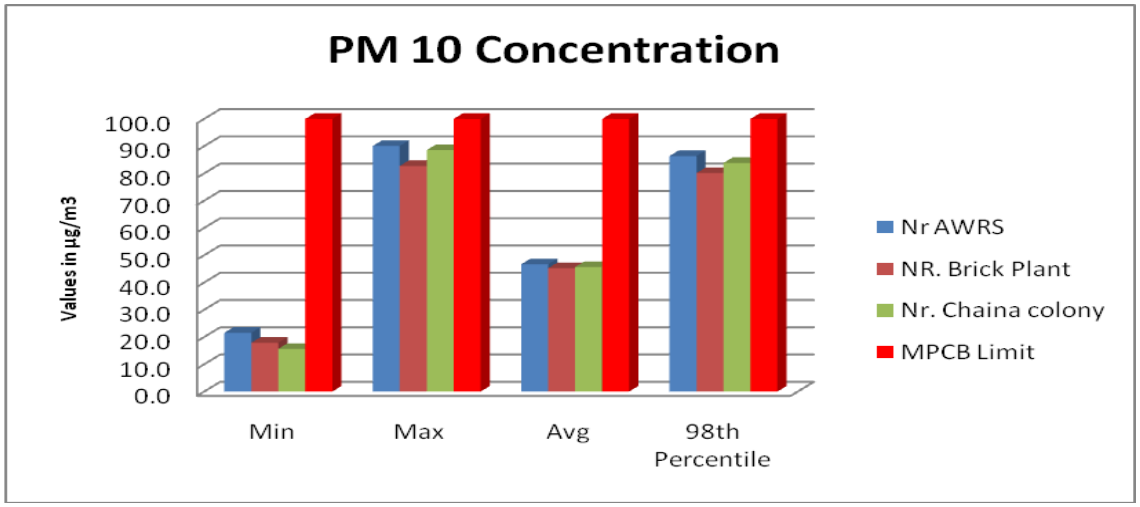
Nitrogen Dioxide (NO_2)

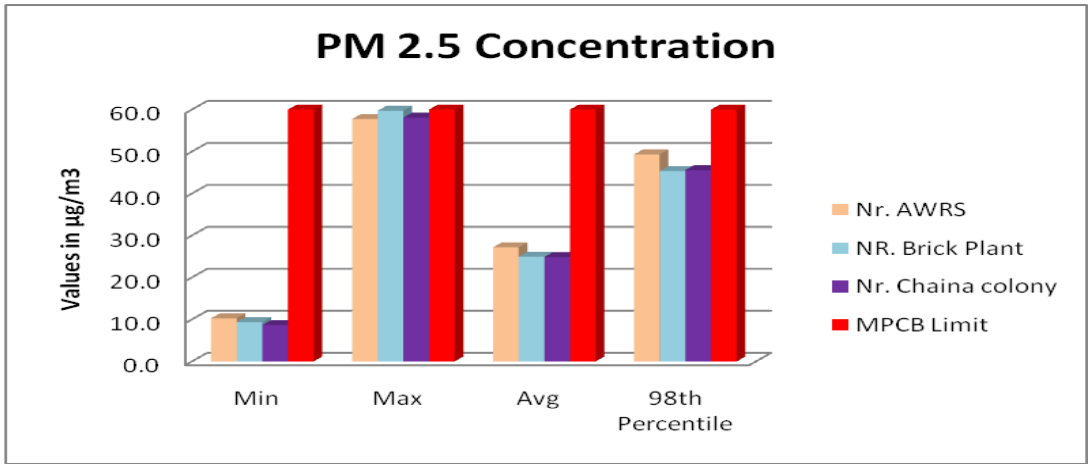
The minimum and maximum NO_2 concentrations in the plant area location were recorded as 10.6 µg/m^3 and 34.0 µg/m^3 respectively. The minimum concentration was recorded at Near Chaina Colony (A3) and maximum concentration was recorded at Near Brick Plant(A2) respectively.

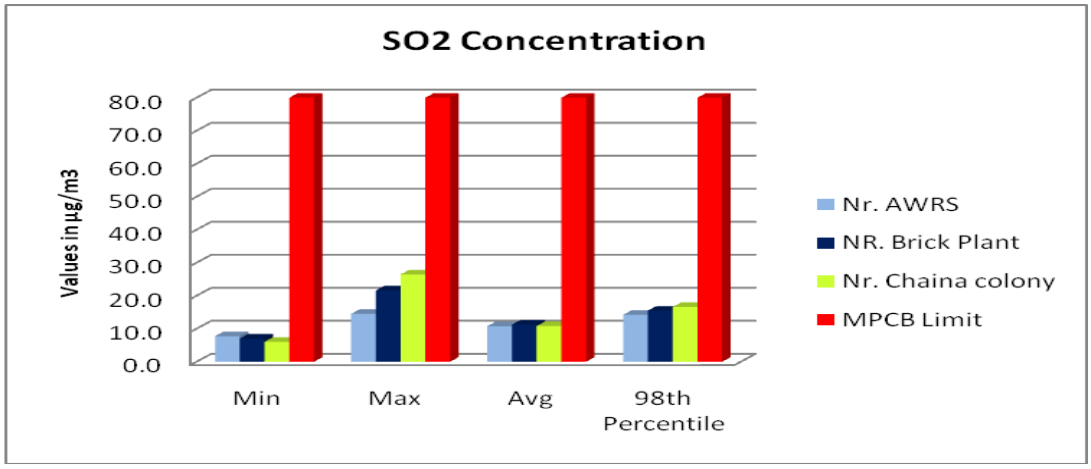
TABLE- 3.2 SUMMARY OF AMBIENT AIR QUALITY RESULT
(Inside Plant Premises)
for the period of Apr 2023- Sept. 2023

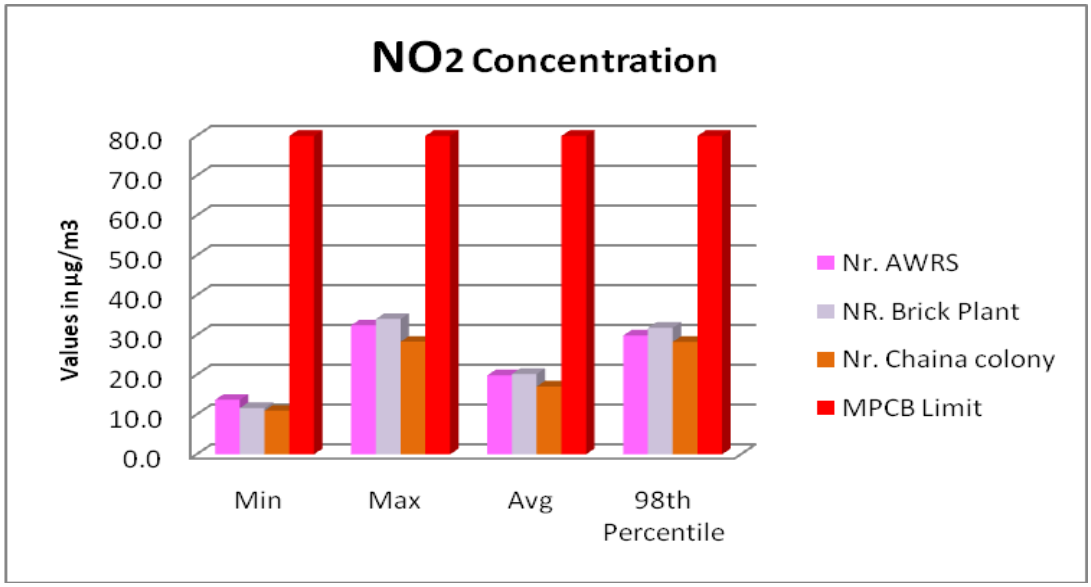
All values are µg/m^3

Location	PM_{10}				$PM_{2.5}$				SO_2				NO_2			
	Min	Max	Avg	98% tile	Min	Max	Avg	98% tile	Min	Max	Avg.	98% tile	Min	Max	Avg.	98% tile
Near AWRS	21.6	90.1	46.7	86.4	10.3	57.8	27.2	49.3	7.8	14.5	10.8	14.2	13.7	32.4	19.8	29.8
Near Brick Plant	17.9	82.7	45.3	80.1	9.4	59.7	25.0	45.3	7.0	21.6	11.3	15.5	11.6	34.0	20.2	31.8
Near Chaina colony	15.7	88.6	45.7	83.8	8.7	58.1	24.9	45.6	6.0	26.4	10.8	16.6	10.9	28.3	17.0	28.2
MPCB Limit	100				60				80				80			




PM 2.5 Concentration
Values in µg/m3
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Min
Max
Avg
98th Percentile
Nr. AWRS
NR. Brick Plant
Nr. Chaina colony
MPCB Limit


SO2 Concentration
Values in µg/m3
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Min
Max
Avg
98th Percentile
Nr. AWRS
NR. Brick Plant
Nr. Chaina colony
MPCB Limit


NO2 Concentration
Values in µg/m3
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Min
Max
Avg
98th Percentile
Nr. AWRS
NR. Brick Plant
Nr. Chaina colony
MPCB Limit

3.3 Stack Monitoring.

Stack monitoring is done with the help of stack Kit (ECOTECH Stack Kit) & Prob set, once in a quarter at Boiler Stack 1 to 5 situated in plant. Height of the Boiler Stack was noted as, 275m and I.D. 7.4m.Flue gas, Velocity, Temperature, Volume & Qty, PM, SO_2, NO_x, Hg are analysed. The values obtained are then compared vis-a-vis with the standards prescribed by CPCB.

3.3.1 Presentation of Results.

The Stack analysis results for the period of APR. 2023 - SEPT. 2023 are presented in detail for various parameters like Flue gas, Velocity, Temperature, Volume & Qty, SPM, SO_2, NOx, Hg values etc computed from the collected raw data for the Stack monitoring station. The summary of these results is presented below. The data has been compared with the standards prescribed by Central Pollution Control Board (CPCB)/MPCB

TABLE- 3.3 Stack Analysis Report for the period of Apr. 2023 - Sept.-2023

Power Plant (Unit-I to Unit 5)

PARAMETERS	CONCENTRATION									
	Unit I		Unit 2		Unit 3		Unit 4		Unit 5	
Date of Sampling	Jun.2023	Sept. 2023	Jun.2023	Sept. 2023	Jun.2023	Sept. 2023	Jun.2023	Sept. 2023	Jun.2023	Sept. 2023
Diameter of Stack (M)	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Height of Stack (M)	275	275	275	275	275	275	275	275	275	275
Temp. of exit gas (0 C)	124	122	126	125	128	124	130	124	127	123
Velocity of exit gas (m/sec)	23.96	23.20	23.81	23.17	24.03	23.64	23.87	23.10	23.65	23.28
Flow of exit gas at stack temp. & Press.(m3/hr)	3707852.17	3590240.83	3684639.40	3585598.28	3718684.79	3658331.60	3693924.51	3574765.65	3659879.12	3602620.97
Flow of exit gas at NTP(Nm3/hr)	2644062.84	2573157.42	2614339.39	2550459.48	2625335.82	2608749.81	2594913.22	2549159.09	2590279.45	2575510.09
PM (mg/Nm3)	43.1	41.8	42.4	44.3	41.5	40.7	39.8	44.6	37.7	40.3
Total dust emission (kg/hr)	113.96	107.55	110.85	112.98	108.95	106.2	103.28	113.69	97.65	103.79
SO2 (mg/Nm3)	807.6	823.6	821.7	844.2	786.8	810.5	794.4	807.7	814.6	788.8
SO2 (kg/hr)	2135.34	2119.25	2148.20	2153.09	2065.61	2114.39	2061.40	2058.95	2110.04	2031.56
SO2 (TPD)	51.24	50.86	51.55	51.67	49.57	50.74	49.47	49.41	50.64	48.76
NOx (mg/Nm3)	319.4	321.7	310.8	328.5	303.7	312.4	277.6	296.6	319.3	305.3
Mercury (mg/Nm3)	0.0143	0.0146	0.0145	0.0151	0.0158	0.0153	0.0141	0.0138	0.0152	0.0150

Note: Values of PM, SO_2 and NOx based on 6% O_2

3.4 Water Quality

Ground waters were collected at 4 locations and Surface water at 4 locations within the 10 km radial distance of power plant were analyzed as per IS 10500 to assess the quality of water for portability.

Presentation of Results

The results of the water quality monitored in the period of APR. 2023 - SEPT. 2023, that of four surface water and four ground water samples and seven drinking water samples. The surface water quality results are given in **Table-3.4**, the results of ground water quality is given in **Table-3.5** and the results of Waste water quality are given in **Table-3.6** the findings are discussed below.

3.4.1 Ground Water Quality.

Most of the villages in the Nearby plant area have hand pumps, as most of the residents of these area use of this water for drinking and other domestic uses.

The analysis results indicate that the pH ranges from 7.70 to 8.10 the maximum pH observed at Kachewani Village (GW1) and Minimum pH were observed at Garada Village (GW3) which is well within the specified standard of 6.5 to 8.5.

Total hardness was observed to be ranging from 282 to 584 mg/l. The maximum hardness 584 mg/l was recorded at Kachewani Village (GW1) and the minimum hardness of 282 mg/l was recorded at Garada village(GW3), Which is well within the specified standard of 200(600) mg/l.

Chlorides were found to be in the range of 68.3 mg/l to 212mg/l, the maximum concentration of chlorides was observed at Kachewani Village (GW1) and the minimum concentration of chlorides was observed at Medipur Village(GW2)

Sulphates were found to be in the range of 42.4 mg/l to 148 mg/l. The maximum value observed at Kachewani Village (GW1) and the minimum value observed at Medipur Village(GW2).
The values of Chlorides and sulphate are acceptable limits.
The analysis results indicate all parameter including bacteriological and heavy metal parameters are well within the drinking water standards.

3.4.2 Surface Water Quality.

The analysis results indicate that the pH values in the range of 7.62 to 8.05 the minimum and maximum value was observed at Wainganga River and Garada Nalah water respectively which is well within the specified standard of 6.5 to 8.5.

TDS was observed in the range of 132 mg/l to 652mg/l, the maximum TDS value was observed at Garada Nalah where as minimum value was observed in Wainganga River, where as TDS is within Desirable limits.

Chlorides and Sulphates were found to be in the range of 10.7 to 88.3 mg/l and 8.0 to 54.5 mg/l respectively. It is observed that value of chlorides and Sulphates are well within acceptable limits. It is evident from the above values that all the parameters are found to comply with the requirements of IS: 10500 specification of surface water except bacteriological parameters. The surface water quality does not indicate any industrial contamination.

Heavy metals concentrations for metals like Arsenic (As), Mercury (Hg), Lead (Pb), Cadmium (Cd), Chromium (Cr) and Copper (Cu) were found to be within the acceptable limits.

3.4.3 Waste Water Quality

Waste water samples were also collected from Cooling Tower Blodown of unit 1 to 5, Analytical methods mentioned in IS: 3025 and Standard Methods published by APHA were followed. The summary of waste water quality collected on quarterly basis for the period of APR. 2023 - SEPT. 2023 are given in **Table-3.6**

3.4.4 Piezo-Metric water

There were 3 Pizo meteric monitoried for water level and collected water samples were analyzed as per IS: 3025 and Standard Methods published by APHA were followed. The summary of piezo- metric water quality collected for the period of APR. 2023 - SEPT. 2023 are given in **Table-3.7**

3.5 Noise Level:

Noise level was measured by APL in basic units of dB(A) at eleven locations inside the plant (industrial Area) during day time and Night time for 24Hrs.

Noise level was found within the acceptable limits during daytime as well as night time for all locations with reference to CPCB standard limits for Industrial area and Residential area.

Noise levels at following locations were recorded for the period of APR. 2023 - SEPT. 2023 on monthly basis. The summary of Noise Level is given in **Table-3.8**

3.6 Soil Quality

Soil samples were collected at 3 locations within the 10 km radial distance of power plant were analyzed as per IS:2720 . The analysis results given in **Table-3.9.**

TABLE- 3.4 SURFACE WATER QUALITY

SW1: Wainganga River Water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	1.7	2.4
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	-	-
4	**Turbidity NTU**	NTU	1(5)	1.2	1.5
5	**Total Dissolved Solid**	mg / l	500 (2000)	184	132
6	**Electrical Conductivity**	µS/cm	-	298	214
7	**Total Alkalinity**	mg / l	200 (600)	130	112
8	**pH Value** at 25ºC	-	6.5 to 8.5	7.66	7.62
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	118	102
10	**Calcium (as Ca)**	mg / l	75 (200)	30.8	28.6
11	**Magnesium (as Mg)**	mg / l	30 (100)	9.96	7.4
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.066	0.063
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	< 0.01	< 0.01
15	**Chlorides (as Cl)**	mg / l	250(1000)	11.3	10.7
16	**Sulphate (as SO4)**	mg / l	200 (400)	9.7	8.0
17	**Nitrates (as NO3)**	mg / l	45	2.55	2.30
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.45	0.37
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.13	0.11
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	Nil	Nil
30	**Total Coliform**	MPN/100 ml	Absent	>16	>16
31	**E. Coli**	Nos./100 ml	Absent	> 16	>16

Note : Standards limit given as Acceptable Limit (Permissible Limit)

SW2: Mendipur Pond Water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	5.5	4.2
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	-	-
4	**Turbidity NTU**	NTU	1(5)	3.0	2.6
5	**Total Dissolved Solid**	mg / l	500 (2000)	226	184
6	**Electrical Conductivity**	µS/cm	-	292	296
7	**Total Alkalinity**	mg / l	200 (600)	368	130
8	**pH Value** at 25ºC	-	6.5 to 8.5	7.72	7.65
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	156	126
10	**Calcium (as Ca)**	mg / l	75 (200)	38.2	32.0
11	**Magnesium (as Mg)**	mg / l	30 (100)	14.7	11.2
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.081	0.072
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	0.011	0.010
15	**Chlorides (as Cl)**	mg / l	250(1000)	17.2	13.5
16	**Sulphate (as SO4)**	mg / l	200 (400)	13.8	11.4
17	**Nitrates (as NO3)**	mg / l	45	6.15	4.70
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.65	0.48
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.17	0.13
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	Nil	Nil
30	**Total Coliform**	MPN/100 ml	Absent	> 16	> 16
31	**E. Coli**	Nos./100 ml	Absent	> 16	> 16

Note : Standards limit given as Acceptable Limit (Permissible Limit)

SW3: Garada Village Nalah water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	2.2	2.7
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	-	-
4	**Turbidity NTU**	NTU	1(5)	1.2	1.8
5	**Total Dissolved Solid**	mg / l	500 (2000)	652	246
6	**Electrical Conductivity**	µS/cm	-	1062	402
7	**Total Alkalinity**	mg / l	200 (600)	204	132
8	**pH Value** at 25ºC	-	6.5 to 8.5	8.05	7.70
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	292	160
10	**Calcium (as Ca)**	mg / l	75 (200)	71.2	51.2
11	**Magnesium (as Mg)**	mg / l	30 (100)	27.7	7.8
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.093	0.078
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	< 0.01	< 0.01
15	**Chlorides (as Cl)**	mg / l	250(1000)	88.3	21.6
16	**Sulphate (as SO4)**	mg / l	200 (400)	54.5	18.2
17	**Nitrates (as NO3)**	mg / l	45	4.30	3.70
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.82	0.40
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.24	0.15
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	Nil	Nil
30	**Total Coliform**	MPN/100 ml	Absent	> 16	> 16
31	**E. Coli**	Nos./100 ml	Absent	> 16	> 16

Note : Standards limit given as Acceptable Limit (Permissible Limit)

SW4: Kachewani Pond water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	2.7	2.5
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	-	-
4	**Turbidity NTU**	NTU	1(5)	1.5	1.0
5	**Total Dissolved Solid**	mg / l	500 (2000)	262	214
6	**Electrical Conductivity**	µS/cm	-	428	348
7	**Total Alkalinity**	mg / l	200 (600)	138	130
8	**pH Value** at 25ºC	-	6.5 to 8.5	7.74	7.71
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	160	142
10	**Calcium (as Ca)**	mg / l	75 (200)	46.8	44.2
11	**Magnesium (as Mg)**	mg / l	30 (100)	10.4	7.65
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.078	0.071
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	< 0.01	< 0.01
15	**Chlorides (as Cl)**	mg / l	250(1000)	19.6	17.6
16	**Sulphate (as SO4)**	mg / l	200 (400)	15.2	12.5
17	**Nitrates (as NO3)**	mg / l	45	4.55	4.10
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.68	0.47
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.19	0.13
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	Nil	Nil
30	**Total Coliform**	MPN/100 ml	Absent	> 16	> 16
31	**E.Coli**	Nos./100 ml	Absent	> 16	> 16

Note : Standards limit given as Acceptable Limit (Permissible Limit)

TABLE- 3.5 GROUND WATER REPORT

Monitoring Date: 22.06.2023

STATIC WATER LEVEL OF OPEN WELL						
Name of village	**Plinth Height (m)**	**Diameter (m)**	**Water level from G.L. (m)**	**Shape**	**Total Depth of well from G.L (m)**	**Landmark**
Mendipur	0.85	1.45	8.00	Round	11.00	**Near Vitoba Ahinshak Suryavanshi Residence**
Khairbodi	1.10	1.83	6.25	Round	10.10	**Near Hanuman Temple, Durga Temple**
Churdi	1.20	2.60	7.00	Round	11.60	**Near Primary School**
Kachewani	1.5	4.80	8.00	Round	12.30	**Opp. ZP. school**

Monitoring Date: 13.09.2023

STATIC WATER LEVEL OF OPEN WELL						
Name of village	**Plinth Height (m)**	**Diameter (m)**	**Water level from G.L. (m)**	**Shape**	**Total Depth of well from G.L (m)**	**Landmark**
Mendipur	0.85	1.45	1.30	Round	11.00	Near Vitoba Ahinshak Suryavanshi Residence
Khairbodi	1.10	1.83	1.25	Round	10.10	Near Hanuman Temple, Durga Temple
Churdi	1.20	2.60	1.70	Round	11.60	Near Primary School
Kachewani	1.5	4.80	1.55	Round	12.30	Opp. ZP. school

GROUND WATER QUALITY

GW1: Kachewani Hand Pump water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	0.1	0.1
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	Agreeable	Agreeable
4	**Turbidity NTU**	NTU	1(5)	0.1	0.1
5	**Total Dissolved Solid**	mg / l	500 (2000)	1210	1070
6	**Electrical Conductivity**	µS/cm	-	1958	1732
7	**Total Alkalinity**	mg / l	200 (600)	258	218
8	**pH Value** at 25°C	-	6.5 to 8.5	8.10	7.92
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	584	468
10	**Calcium (as Ca)**	mg / l	75 (200)	118.2	93.8
11	**Magnesium (as Mg)**	mg / l	30 (100)	70.1	56.7
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.26	0.22
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	0.018	0.015
15	**Chlorides (as Cl)**	mg / l	250(1000)	212	186.2
16	**Sulphate (as SO4)**	mg / l	200 (400)	148	95.7
17	**Nitrates (as NO3)**	mg / l	45	4.55	4.10
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.98	0.82
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.82	0.67
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	< 0.1	< 0.1
30	**Total Coliform**	MPN/100 ml	Absent	Absent	Absent
31	**E. Coli**	Nos./100 ml	Absent	Absent	Absent

Note : Standards limit given as Acceptable Limit (Permissible Limit)

GW2: Mendipur Hand Pump water

Sr. No.	Test Parameters	Unit	As per IS 10500 :2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	0.1	0.1
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	Agreeable	Agreeable
4	**Turbidity NTU**	NTU	1(5)	0.1	0.1
5	**Total Dissolved Solid**	mg / l	500 (2000)	714	562
6	**Electrical Conductivity**	µS/cm	-	1148	908
7	**Total Alkalinity**	mg / l	200 (600)	216	194
8	**pH Value** at 25ºC	-	6.5 to 8.5	7.87	7.75
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	348	304
10	**Calcium (as Ca)**	mg / l	75 (200)	78.8	71.8
11	**Magnesium (as Mg)**	mg / l	30 (100)	36.7	30.2
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.12	0.10
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	< 0.01	< 0.01
15	**Chlorides (as Cl)**	mg / l	250(1000)	68.3	56.6
16	**Sulphate (as SO4)**	mg / l	200 (400)	42.4	37.4
17	**Nitrates (as NO3)**	mg / l	45	3.18	2.65
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.90	0.78
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.37	0.28
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	< 0.1	< 0.1
30	**Total Coliform**	MPN/100 ml	Absent	Absent	Absent
31	**E.coli**	Nos./100 ml	Absent	Absent	Absent

Note : Standards limit given as Acceptable Limit (Permissible Limit)

GW3: Garada Hand Pump water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	**Apparent Colour**	Hazen units	5 (15)	0.1	0.1
2	**Odour**	-	Agreeable	Agreeable	Agreeable
3	**Taste**	-	Agreeable	Agreeable	Agreeable
4	**Turbidity NTU**	NTU	1(5)	0.1	0.1
5	**Total Dissolved Solid**	mg / l	500 (2000)	778	624
6	**Electrical Conductivity**	µS/cm	-	1262	1009
7	**Total Alkalinity**	mg / l	200 (600)	210	190
8	**pH Value** at 25°C	-	6.5 to 8.5	7.78	7.70
9	**Total Hardness (CaCO3)**	mg / l	200 (600)	304	282
10	**Calcium (as Ca)**	mg / l	75 (200)	74.2	69.3
11	**Magnesium (as Mg)**	mg / l	30 (100)	28.8	26.4
12	**Copper as(Cu)**	mg / l	0.05(1.5)	< 0.01	< 0.01
13	**Iron (as Fe)**	mg / l	0.3	0.10	0.094
14	**Manganese as (Mn)**	mg / l	0.1(0.3)	< 0.01	< 0.01
15	**Chlorides (as Cl)**	mg / l	250(1000)	104.7	87.3
16	**Sulphate (as SO4)**	mg / l	200 (400)	78.8	70.5
17	**Nitrates (as NO3)**	mg / l	45	3.30	2.70
18	**Fluoride (as F)**	mg / l	1.0 (1.5)	0.92	0.78
19	**Phenolic Compounds**	mg / l	0.001	BDL	BDL
20	**Mercury as (Hg)**	mg / l	0.001	< 0.0005	< 0.0005
21	**Cadmium as (Cd)**	mg / l	0.003	< 0.001	< 0.001
22	**Selenium as (Se)**	mg / l	0.01	< 0.001	< 0.001
23	**Arsenic as (As)**	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	**Cyanide as (CN)**	mg / l	0.05	< 0.005	< 0.005
25	**Lead as (Pb)**	mg / l	0.01	< 0.001	< 0.001
26	**Zinc as (Zn)**	mg / l	5 (15)	0.79	0.65
27	**Total Chromium as (Cr)**	mg / l	0.05	< 0.03	< 0.03
28	**Mineral Oil**	mg / l	0.05	< 0.01	< 0.01
29	**Free Residual Chlorine**	mg / l	0.2 (1.0)	< 0.1	< 0.1
30	**Total Coliform**	MPN/100 ml	Absent	Absent	Absent
31	**E. Coli**	Nos./100 ml	Absent	Absent	Absent

Note : Standards limit given as Acceptable Limit (Permissible Limit)

GW4: Chikhali Hand Pump water

Sr. No.	Test Parameters	Unit	As per IS 10500 : 2012	Results	
				Jun. 2023	Sept. 2023
1	Apparent Colour	Hazen units	5 (15)	0.1	0.1
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	Agreeable	Agreeable
4	Turbidity NTU	NTU	1(5)	0.1	0.1
5	Total Dissolved Solid	mg / l	500 (2000)	764	654
6	Electrical Conductivity	µS/cm	-	1236	1062
7	Total Alkalinity	mg / l	200 (600)	228	204
8	pH Value at 25oC	-	6.5 to 8.5	7.87	7.81
9	Total Hardness (CaCO3)	mg / l	200 (600)	352	296
10	Calcium (as Ca)	mg / l	75 (200)	81.8	73.8
11	Magnesium (as Mg)	mg / l	30 (100)	35.8	27.1
12	Copper as(Cu)	mg / l	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / l	0.3	0.13	0.11
14	Manganese as (Mn)	mg / l	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / l	250(1000)	121.3	107.3
16	Sulphate (as SO4)	mg / l	200 (400)	86.5	71.7
17	Nitrates (as NO3)	mg / l	45	4.15	3.35
18	Fluoride (as F)	mg / l	1.0 (1.5)	0.97	0.82
19	Phenolic Compounds	mg / l	0.001	BDL	BDL
20	Mercury as (Hg)	mg / l	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / l	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / l	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / l	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / l	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / l	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / l	5 (15)	0.67	0.59
27	Total Chromium as (Cr)	mg / l	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / l	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / l	0.2 (1.0)	< 0.1	< 0.1
30	Total Coliform	MPN/100 ml	Absent	Absent	Absent
31	E. Coli	Nos./100 ml	Absent	Absent	Absent

Note : Standards limit given as Acceptable Limit (Permissible Limit)

TABLE- 3.6 WASTE WATER QUALITY (APR. 2023 - SEPT. 2023)

Sample Category : Unit-1- Cooling Tower Blow Down water (WW-1)

Sr. No.	Parameters	Unit	MPCB Limit	Results	
				Jun. 2023	Sept. 2023
1.	Free Available Chlorine	mg / l	0.5	0.27	0.24
2.	Zinc as (Zn)	mg / l	1.0	0.13	0.11
3.	Total Chromium as (Cr)	mg / l	0.2	0.011	0.015
4.	Phosphate as (PO4)	mg/ l	5.0	1.33	1.35

Sample Category : Unit-2- Cooling Tower Blow Down water (WW-2)

Sr. No.	Parameters	Unit	MPCB Limit	Results	
				Jun. 2023	Sept. 2023
1.	Free Available Chlorine	mg / l	0.5	0.25	0.22
2.	Zinc as (Zn)	mg / l	1.0	0.13	0.15
3.	Total Chromium as (Cr)	mg / l	0.2	0.014	0.012
4.	Phosphate as (PO4)	mg/ l	5.0	1.38	1.34

Sample Category : Unit-3- Cooling Tower Blow Down water (WW-3)

Sr. No.	Parameters	Unit	MPCB Limit	Results	
				Jun. 2023	Sept. 2023
1.	Free Available Chlorine	mg / l	0.5	0.28	0.26
2.	Zinc as (Zn)	mg / l	1.0	0.11	0.13
3.	Total Chromium as (Cr)	mg / l	0.2	0.017	0.011
4.	Phosphate as (PO4)	mg/ l	5.0	1.31	1.33

Sample Category : Unit-4-Cooling Tower Blow Down water (WW-4)

Sr. No.	Parameters	Unit	MPCB Limit	Results	
				Jun. 2023	Sept. 2023
1.	Free Available Chlorine	mg / l	0.5	0.22	0.24
2.	Zinc as (Zn)	mg / l	1.0	0.13	0.11
3.	Total Chromium as (Cr)	mg / l	0.2	0.010	0.013
4.	Phosphate as (PO4)	mg/ l	5.0	1.34	1.36

Sample Category : Unit-5- Cooling Tower Blow Down water (WW-5)

Sr. No.	Parameters	Unit	MPCB Limit	Results	
				Jun. 2023	Sept. 2023
1.	Free Available Chlorine	mg / l	0.5	0.25	0.25
2.	Zinc as (Zn)	mg / l	1.0	0.16	0.15
3.	Total Chromium as (Cr)	mg / l	0.2	0.014	0.013
4.	Phosphate as (PO4)	mg/ l	5.0	1.35	1.36

Sample Category : ETP Water Sampling Date : 13.09.2023

Sr. No.	Parameters	Measurement Unit	Method	Result	MPCB Standards
1	pH Value	-	IS : 3025 (Part 11)-1983	7.78 at 25^{o}C	5.5-9.0
2	TSS	mg / l	IS : 3025 (Part 17) 1984	10	100
3	TDS	mg / l	IS : 3025 (Part 16)-1984	286	2100
4	COD	mg / l	IS : 2488 (Part 5) -1976	28.8	250
5	BOD at 27^{0}C for 3 days	mg / l	IS : 3025 (Part 44) -1993	6.3	30
6	Oil & Grease	mg / l	IS : 3025 (Part 39)-1991	< 4	10
7	Copper as(Cu)	mg / l	IS : 3025 (Part II)-2004	< 0.010	-
8	Iron (as Fe)	mg / l	IS : 3025 (Part II)-2004	0.17	-
9	Manganese as (Mn)	mg / l	IS : 3025 (Part II)-2004	0.043	-
10	Mercury as (Hg)	mg / l	IS : 3025 (Part II)-2004	< 0.001	-
11	Cadmium as (Cd)	mg / l	IS : 3025 (Part II)-2004	< 0.001	-
12	Selenium as (Se)	mg / l	IS : 3025 (Part II)-2004	0.014	-
13	Arsenic as (As)	mg / l	IS : 3025 (Part II)-2004	< 0.01	-
14	Cyanide as (CN)	mg / l	IS : 3025 (Part 27)-1986	< 0.005	-
15	Lead as (Pb)	mg / l	IS : 3025 (Part II)-2004	< 0.001	-
16	Zinc as (Zn)	mg / l	IS : 3025 (Part II)-2004	2.05	-
17	Total Chromium as (Cr)	mg / l	IS :3025(Part 52)-2003	0.014	-

TABLE- 3.7 PIEZO-METRIC WELL WATER REPORT

Sampling Date: 23.06.2023

Sr. No.	Test Parameters	Unit	As per IS : 10500 : 2012	Pizo well (P1) Near AWRPH	Pizo well (P2) B/H Ash dyke -1	Pizo -well (P3) Near Raw Water pump house -02
1	pH		6.5 to 8.5	7.90	7.86	7.84
2	Total Dissolved Solid	mg / l	500 (2000)	675	704	672
3	Electrical Conductivity	µS/cm	-	1092	1138	1088
4	Copper as(Cu)	mg / l	0.05 (1.5)	< 0.01	< 0.01	< 0.01
5	Iron (as Fe)	mg / l	0.3 (1.0)	0.22	0.27	0.23
6	Manganese as (Mn)	mg / l	0.1 (0.3)	0.078	0.071	0.057
7	Mercury as (Hg)	mg / l	0.001	< 0.0005	< 0.0005	< 0.0005
8	Cadmium as (Cd)	mg / l	0.01	0.0031	0.0019	0.0017
9	Selenium as (Se)	mg / l	0.01	0.0013	0.0014	0.0016
10	Arsenic as (As)	mg / l	0.05	0.012	0.011	0.012
11	Cyanide as (CN)	mg / l	0.05	< 0.005	< 0.005	< 0.005
12	Lead as (Pb)	mg / l	0.05	0.0016	0.0014	0.0018
13	Zinc as (Zn)	mg / l	5 (15)	1.94	1.83	2.06
14	Total Chromium as (Cr)	mg / l	0.05	< 0.010	< 0.010	< 0.010

TABLE- 3.8 Noise Level (Within Plant area)

SL. NO.	LOCATION	RESULT (dBA)					
		DAY					
		Apr. 2023	May 2023	Jun. 2023	Jul. 2023	Aug. 2023	Sept. 2023
1	Near Shanti Niketan I, II & III	60.6	58.4	57.3	59.8	59.5	57.8
2	Near Labour Hutment	57.3	56.2	61.0	63.6	62.4	64.6
3	Near Store Area	54.3	54.7	54.4	55.3	61.8	60.7
4	Gate No.1	51.2	53.5	50.1	51.2	52.5	50.3
5	Gate No.2	59.8	65.2	64.0	59.2	61.4	60.2
6	Gate No.3	73.5	69.1	70.0	68.5	68.9	67.3
7	Near OHC	45.0	44.4	43.1	62.9	59.5	46.7
8	Railway Siding	64.8	64.8	60.7	61.7	64.3	63.4
9	Near Reservoir 2	50.3	55.4	54.3	54.3	52.5	51.3
10	Near Ash Water Recovery Pump House	60.6	63.2	64.0	63.4	63.6	66.2
11	In China Colony	40.3	39.4	38.9	40.3	39.9	39.2
CPCB Standards							
Industrial Area		75					

SL. NO.	LOCATION	RESULT (dBA)					
		NIGHT					
		Apr. 2023	May 2023	Jun. 2023	Jul. 2023	Aug. 2023	Sept. 2023
1	Near Shanti Niketan I II & III	51.5	48.1	49.2	51.7	48.9	47.5
2	Near Labour Hutment	49.4	46.0	50.9	49.4	50.4	49.4
3	Near Store Area	46.3	44.9	46.7	46.3	46.8	45.2
4	Gate No.1	42.0	43.9	41.2	42.0	40.3	39.3
5	Gate No.2	49.3	51.8	52.1	49.3	50.2	50.2
6	Gate No.3	60.6	55.7	61.2	60.6	59.5	59.4
7	Near OHC	38.8	36.2	34.4	38.8	32.6	32.1
8	Railway Siding	52.8	52.8	50.2	52.8	49.3	47.8
9	Near Reservoir 2	42.3	42.3	41.7	42.3	38.9	37.8
10	Near Ash Water Recovery Pump House	51.3	51.3	53.0	51.3	52.3	50.3
11	In China Colony	35.0	34.5	32.7	35.0	33.0	31.4
CPCB Standards							
Industrial Area		70					

TABLE- 3.9 SOIL ANALYSIS as Per IS 2720 for (Jun.2023)

Sr. No.	Test Parameters	Unit	Khairabodi Village	Mendipur Village	Churdi Village
1	**pH**	-	7.81	7.80	7.83
2	**E. Conductivity**	µs/cm	583	608	568
3	**Nitrogen as N**	Kg/ha	710	634	594
4	**Phosphorus as P2O5**	Kg/ha	140.3	122.5	119.3
5	**Potassium as K**	Kg/ha	93.2	110.3	121.7
6	**Calcium (as Ca)**	Kg/ha	3.94	4.07	4.34
7	**Magnesium (as Mg)**	Kg/ha	1.28	1.18	1.02
8	**Total Organic Carbon**	%	0.740	0.822	0.768
9	**Iron as Fe**	Kg/ha	2.53	2.73	2.55
10	**Boron as B**	Kg/ha	ND	ND	ND
11	**Natural Moisture Content**	%	6.1	6.0	6.1
12	**Field Capacity**	%	7.0	6.4	6.7
13	**Wilting Coefficient**	%	0.68	0.69	0.63
14	**Available Water Storage Capacity**	%	0.73	0.71	0.70
15	**Bulk Density**	gm/cc	1.37	1.36	1.37
16	**Grain size Distribution : a) Sand**	%	32.8	33.8	33.3
	b) Silt	%	31.9	31.3	31.6
	c) Clay	%	35.3	34.9	35.1
17	**Cation Exchange Capacity**	meq/100gm	37.5	33.7	34.7
18	**Biological Status:**				
	a) Total Heterotrophy	CFU	31.5 $x10^3$/gm	17.6 $x10^3$/gm	36.2 $x10^3$/gm
	b) Azetobacter	CFU	33.7 $x10^3$/gm	23.5 $x10^3$/gm	29.1 $x10^3$/gm
	c) Actinomycetes	CFU	18.4 $x10^1$/gm	19.1 $x10^2$/gm	43.2 $x10^3$/gm
	d) Yeast	CFU	131 $x10^2$/gm	132 $x10^2$/gm	154 $x10^2$/gm

Annexure I - On site Meteorological Data for APR. 2023 - SEPT. 2023

Apr. 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.04.2023	ENE	38.3	5.2	33.1	18.7	25.3	71.4	24.4	45.3	983.9	1.0
02.04.2023	NNW	33.6	3.4	35.0	18.3	26.7	67.1	19.1	38.7	983.4	0.0
03.04.2023	NW	34.1	4.9	36.3	19.5	27.7	57.6	19.1	37.3	983.1	0.0
04.04.2023	NW	24.5	3.7	37.6	20.9	28.9	61.4	15.8	35.6	983.7	0.0
05.04.2023	E	29.1	3.1	37.5	21.5	29.6	48.6	15.8	29.8	984.1	0.0
06.04.2023	NW	31.9	3.2	38.2	20.8	28.3	61.8	14.8	34.0	985.4	0.0
07.04.2023	ENE	63.0	5.7	38.2	18.6	25.9	72.3	20.0	46.9	987.6	3.6
08.04.2023	E	62.7	4.1	28.2	19.6	22.8	69.7	38.6	56.3	989.6	2.4
09.04.2023	NW	51.6	4.1	34.9	20.0	26.6	70.5	21.5	45.9	989.2	4.5
10.04.2023	NE	55.1	3.7	36.5	20.1	27.7	71.2	20.3	43.0	987.6	0.0
11.04.2023	E	27.7	3.0	38.2	21.4	30.0	62.2	17.9	36.0	986.6	0.0
12.04.2023	E	36.8	4.2	39.6	21.8	30.9	60.7	13.7	30.7	985.6	0.0
13.04.2023	ESE	21.0	2.7	41.7	22.4	31.5	57.1	14.4	31.6	984.8	0.0
14.04.2023	NW	28.7	3.2	40.6	23.0	31.5	56.5	14.2	31.2	984.6	0.0
15.04.2023	E	63.0	8.4	30.4	23.4	27.6	46.3	25.8	34.9	985.4	0.0
16.04.2023	NNW	24.2	3.1	39.8	20.0	29.8	56.6	13.6	31.5	984.0	0.0
17.04.2023	NNW	21.2	2.7	41.7	22.2	31.9	53.7	10.7	28.8	983.8	0.0
18.04.2023	N	24.9	2.5	42.1	23.0	32.5	50.9	11.4	25.6	984.7	0.0
19.04.2023	E	28.4	3.3	40.6	25.7	32.9	43.3	12.8	24.7	982.5	0.0
20.04.2023	ENE	63.0	6.2	38.4	20.2	29.4	66.1	15.5	33.2	981.3	2.4
21.04.2023	E	50.6	6.2	35.1	20.3	27.6	64.0	23.5	41.1	981.9	0.0
22.04.2023	ENE	63.0	8.1	35.1	21.3	26.5	64.4	23.9	41.8	980.8	1.0
23.04.2023	NE	43.7	6.5	33.4	19.5	25.6	72.7	22.4	45.4	982.0	0.0
24.04.2023	NE	36.3	7.0	35.3	21.8	27.8	49.1	21.8	38.2	983.6	0.0
25.04.2023	NW	57.3	11.1	35.1	21.1	27.6	59.8	28.1	41.6	984.7	0.0
26.04.2023	NW	61.0	7.4	33.1	21.2	26.9	55.1	27.7	41.6	984.4	0.0
27.04.2023	ENE	62.2	7.2	33.1	17.9	24.9	75.5	30.9	48.6	985.5	2.8
28.04.2023	ENE	50.1	5.7	32.8	18.0	24.9	76.2	29.6	51.3	985.5	1.2
29.04.2023	ENE	53.8	6.0	33.5	17.7	23.3	77.8	26.9	58.9	985.0	5.6
30.04.2023	NW	60.3	6.4	24.4	16.6	19.6	79.6	54.1	72.4	984.5	26.2

May 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.05.2023	NW	52.6	7.0	32.3	18.0	24.2	78.4	33.2	56.5	983.3	0.2
02.05.2023	NW	49.6	6.9	28.2	18.4	22.1	79.1	47.7	65.2	984.3	3.8
03.05.2023	ENE	31.4	4.0	28.7	19.2	22.6	77.6	41.3	64.4	985.2	0.0
04.05.2023	ENE	25.5	3.6	26.9	25.1	26.0	55.3	49.1	52.2	984.2	0.0
05.05.2023	N	22.4	1.3	33.5	20.3	24.9	72.4	30.9	56.7	983.8	0.0
06.05.2023	'Metrological data was not available as the weather monitoring station was sent for upgrade and calibration.			39.4	--	--	68.2	---	---	---	0.0
07.05.2023				38.0	--	--	66.0	---	---	---	0.0
08.05.2023				40.0	24.3	26.5	62.9	41.3	52.8	---	0.0
09.05.2023				40.7	25.6	28.3	65.7	38.4	59.8	---	0.0
10.05.2023				41.1	25.1	29.7	60.4	31.2	53.4	---	0.0
11.05.2023				42.2	21.7	31.2	77.3	29.4	54.7	---	0.0
12.05.2023				43.1	21.1	31.9	74.1	25.3	48.5	---	0.0
13.05.2023				43.3	20.9	32.2	71.6	20.6	47.1	---	0.0
14.05.2023				44.2	22.3	33.3	74.9	22.6	48.3	---	0.0
15.05.2023				43.7	25.9	34.1	67.4	26.4	47.1	---	0.0
16.05.2023				41.7	24.7	32.7	71.9	33.7	52.8	---	0.0
17.05.2023				42.3	25.2	33.3	76.6	31.0	53.3	---	0.0
18.05.2023				40.8	28.8	34.6	76.0	33.3	51.9	---	0.0
19.05.2023	NW	24.2	3.3	41.1	24.5	32.9	64.9	28.9	49.2	982.1	0.0
20.05.2023	NNW	33.8	4.6	42.1	26.0	32.9	47.2	13.1	30.8	981.5	0.0
21.05.2023	NNW	22.0	3.7	42.3	26.0	33.1	45.5	14.0	30.5	982.2	0.0
22.05.2023	NNW	42.7	5.0	38.5	25.9	31.4	46.8	16.8	30.1	983.5	0.0
23.05.2023	ENE	24.9	4.5	40.2	23.9	31.9	54.4	18.0	33.0	983.3	0.0
24.05.2023	ENE	35.6	4.6	41.5	25.8	33.1	46.7	21.6	33.9	981.7	0.0
25.05.2023	ESE	59.8	7.3	39.0	26.7	32.7	54.7	20.7	35.5	981.0	0.0
26.05.2023	ESE	55.1	6.2	39.0	24.1	31.4	59.7	23.6	38.5	981.9	0.0
27.05.2023	E	62.7	5.5	39.0	23.1	30.3	73.0	22.6	43.7	981.7	0.0
28.05.2023	S	36.6	4.9	40.1	21.8	29.6	71.8	27.1	46.4	981.9	0.0
29.05.2023	S	47.2	4.2	39.2	22.4	30.1	67.1	25.6	45.1	982.6	0.0
30.05.2023	ENE	34.3	5.3	38.6	25.1	31.4	65.8	25.6	43.6	982.8	0.0
31.05.2023	S	32.4	2.9	40.4	25.0	32.3	59.1	21.2	38.1	982.2	0.0

Jun. 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.06.2023	S	42.2	3.0	41.4	24.8	33.1	51.1	16.6	29.7	981.1	0.0
02.06.2023	ESE	51.1	4.0	39.7	24.0	31.2	57.1	18.7	31.7	980.2	0.0
03.06.2023	S	63.0	4.8	40.3	23.0	31.2	68.9	23.5	38.0	980.4	3.2
04.06.2023	E	43.2	5.6	41.5	24.0	31.4	66.4	20.8	41.4	979.8	0.0
05.06.2023	ESE	47.4	3.5	39.7	24.4	31.9	63.9	22.6	39.2	979.2	0.0
06.06.2023	E	45.2	4.3	40.1	25.2	32.3	57.7	18.1	34.1	978.4	0.0
07.06.2023	SSE	61.5	4.3	40.9	25.8	31.5	54.7	20.1	37.4	978.4	0.0
08.06.2023	S	42.0	3.6	41.2	24.3	32.7	70.2	16.5	38.1	978.4	0.0
09.06.2023	SE	45.4	3.8	40.5	26.4	32.3	56.9	22.9	37.2	976.9	0.0
10.06.2023	ESE	NNW	6.1	41.6	25.5	33.1	61.4	21.9	38.6	975.6	2.2
11.06.2023	E	62.0	5.8	41.3	26.6	31.8	58.1	25.0	43.1	976.4	0.0
12.06.2023	E	62.5	6.8	44.6	25.5	33.5	64.9	23.4	42.9	976.1	0.0
13.06.2023	ESE	57.1	6.3	42.8	25.6	33.6	79.5	25.1	49.9	976.6	4.2
14.06.2023	E	53.8	8.3	41.0	28.3	33.9	71.1	25.3	48.5	977.8	0.0
15.06.2023	E	46.9	7.6	40.2	29.1	33.1	64.1	26.9	43.9	978.4	0.0
16.06.2023	E	50.1	7.4	41.1	28.8	32.9	60.7	23.5	38.6	977.9	0.0
17.06.2023	E	54.8	7.3	39.6	28.5	33.6	51.3	28.8	38.5	978.1	0.0
18.06.2023	E	47.2	7.5	39.2	30.0	33.6	53.6	28.5	39.5	978.3	0.0
19.06.2023	E	54.6	7.4	40.1	30.0	33.8	52.9	27.6	39.5	977.1	0.0
20.06.2023	E	50.6	4.6	39.1	30.2	34.0	58.0	28.5	41.1	976.4	0.0
21.06.2023	E	59.5	6.3	40.1	26.3	33.6	87.3	29.6	47.9	976.9	8.8
22.06.2023	NNW	63.0	5.1	39.2	24.2	30.0	93.1	41.4	73.0	978.1	34.6
23.06.2023	E	34.8	6.5	27.8	24.8	26.1	94.5	83.0	90.7	978.7	25.2
24.06.2023	E	33.3	5.7	34.6	23.8	29.8	96.9	54.4	77.8	977.5	12.8
25.06.2023	NNW	23.2	3.5	34.8	27.5	32.9	93.1	62.1	81.8	976.6	1.8
26.06.2023	E	47.4	9.8	34.1	24.7	27.9	97.3	86.2	91.1	976.0	47.2
27.06.2023	E	60.0	15.0	26.0	22.9	24.7	99.3	90.0	95.0	975.3	42.2
28.06.2023	ENE	37.8	9.4	30.2	24.6	26.8	97.3	80.5	91.7	977.7	17.4
29.06.2023	ENE	41.7	5.7	34.3	26.2	30.7	92.7	59.7	79.2	978.1	1.6
30.06.2023	ENE	42.7	6.8	34.2	26.0	31.7	94.4	55.2	75.5	978.0	3.4

Jul. 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.07.2023	ENE	47.2	8.0	34.1	30.9	32.8	86.5	56.2	72.8	978.8	0.0
02.07.2023	E	39.5	6.2	35.1	29.1	32.9	88.7	62.6	77.9	978.6	2.4
03.07.2023	NNW	22.0	2.5	36.9	30.3	33.9	93.5	42.8	70.2	977.2	0.0
04.07.2023	NW	48.7	3.4	38.0	31.5	34.2	86.1	43.5	69.3	975.1	0.6
05.07.2023	NNW	29.9	5.0	35.1	28.7	32.5	95.1	52.3	77.6	974.7	15.0
06.07.2023	NNW	30.9	5.8	35.9	30.3	33.0	92.7	50.7	78.2	975.6	11.4
07.07.2023	ENE	43.2	6.5	34.4	28.8	32.5	96.2	59.0	83.4	976.8	39.6
08.07.2023	NNW	45.2	5.2	34.1	28.8	31.8	94.8	63.6	85.4	978.2	19.0
09.07.2023	E	60.0	10.7	33.7	25.9	31.4	97.4	59.0	81.2	979.6	56.0
10.07.2023	ENE	55.3	7.4	34.5	26.4	32.6	93.2	59.4	79.0	978.8	3.2
11.07.2023	ENE	33.6	5.6	33.6	29.3	31.8	95.5	81.4	89.9	978.4	5.4
12.07.2023	ENE	26.4	6.1	34.3	26.9	32.3	94.8	62.9	83.4	977.5	0.0
13.07.2023	NNW	24.2	4.1	33.7	27.7	31.6	95.5	69.9	84.4	978.1	1.4
14.07.2023	E	46.9	5.9	35.1	29.8	32.8	94.9	61.6	82.5	978.9	6.2
15.07.2023	ENE	35.3	5.1	34.2	29.9	32.5	94.9	75.4	88.8	978.7	4.2
16.07.2023	E	32.6	8.5	33.8	29.5	31.9	98.0	78.2	92.0	977.5	21.4
17.07.2023	E	36.8	8.9	34.9	27.4	32.0	95.2	77.1	89.7	975.4	11.2
18.07.2023	E	35.3	4.4	35.8	28.6	33.1	96.3	56.5	84.1	973.4	22.4
19.07.2023	E	33.8	4.8	35.4	30.0	33.5	97.6	51.7	80.2	972.6	6.6
20.07.2023	E	25.7	3.0	36.9	30.9	33.9	93.6	48.7	77.9	972.9	13.4
21.07.2023	ENE	47.9	3.2	35.6	29.2	32.6	96.2	66.0	89.8	974.0	36.6
22.07.2023	NW	51.1	5.8	34.5	28.5	31.4	96.7	66.6	87.6	975.7	28.8
23.07.2023	NW	27.4	6.0	34.2	28.0	31.2	93.1	64.8	84.1	977.0	0.0
24.07.2023	NW	46.9	3.9	34.9	28.6	32.2	89.9	55.0	80.7	976.6	16.2
25.07.2023	SSW	29.4	2.6	36.6	29.9	33.5	95.1	48.2	73.5	976.8	0.0
26.07.2023	S	48.7	4.6	36.9	29.5	33.1	93.9	49.4	77.9	976.1	11.8
27.07.2023	E	63.0	5.1	37.1	28.5	33.0	96.8	49.7	77.8	975.5	70.0
28.07.2023	E	37.3	9.2	35.2	28.1	31.9	99.7	73.4	87.3	975.7	74.4
29.07.2023	E	34.3	9.9	34.0	30.2	32.5	87.0	69.0	79.3	977.9	0.0
30.07.2023	E	45.7	9.3	33.9	28.8	32.3	92.0	62.1	77.3	978.0	1.6
31.07.2023	ENE	48.2	9.7	34.2	29.6	32.6	92.6	66.0	79.6	977.1	0.0

Aug. 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.08.2023	E	51.9	13.5	34.3	29.3	32.6	87.6	60.5	75.1	976.3	0.0
02.08.2023	E	58.0	13.5	33.2	29.3	31.7	93.0	78.8	87.2	975.9	4.6
03.08.2023	E	62.7	18.3	32.7	27.7	30.6	99.2	88.7	94.5	975.1	51.0
04.08.2023	ENE	47.4	11.6	32.9	27.7	31.2	98.7	78.6	88.8	978.2	8.0
05.08.2023	E	62.0	11.8	34.4	28.5	32.2	92.3	60.5	80.1	980.7	24.4
06.08.2023	ENE	53.4	9.7	34.2	29.7	32.5	89.5	60.7	78.6	979.8	0.0
07.08.2023	ENE	51.4	9.4	33.9	29.0	32.2	90.6	56.4	76.5	978.4	0.0
08.08.2023	ENE	38.8	8.4	33.1	28.8	31.9	88.9	60.2	77.2	979.5	0.0
09.08.2023	ENE	37.8	7.9	33.6	28.6	32.2	87.9	58.2	76.2	982.0	0.0
10.08.2023	E	31.1	6.3	33.9	29.2	32.4	90.2	52.9	73.2	982.7	0.0
11.08.2023	E	28.2	6.3	33.9	29.1	32.3	89.6	70.3	71.1	982.3	0.0
12.08.2023	ENE	45.7	8.1	33.7	29.7	32.2	86.3	48.9	69.1	981.4	0.0
13.08.2023	ENE	39.8	6.2	34.1	28.9	31.9	92.6	51.2	76.0	980.6	13.6
14.08.2023	ENE	40.0	4.5	34.2	30.3	32.5	96.3	59.2	81.2	981.6	4.0
15.08.2023	ENE	41.2	6.0	34.1	27.1	32.1	92.2	50.0	76.4	981.9	0.0
16.08.2023	E	55.3	5.3	34.2	27.1	32.2	91.8	53.1	76.4	981.7	0.0
17.08.2023	E	52.9	5.7	34.4	28.8	32.1	96.1	53.5	80.7	980.8	29.2
18.08.2023	E	35.8	6.2	33.9	28.5	31.6	97.8	80.0	92.4	978.6	21.4
19.08.2023	ESE	63.0	3.3	33.6	25.4	29.5	99.5	73.2	91.7	975.8	56.8
20.08.2023	NNW	25.7	3.9	28.5	24.5	25.9	96.6	83.2	92.3	977.7	7.4
21.08.2023	ENE	30.6	5.4	33.5	25.0	27.5	97.0	63.1	86.7	979.4	29.0
22.08.2023	ENE	33.3	7.1	31.1	24.4	27.7	96.0	66.0	82.1	979.8	0.0
23.08.2023	ENE	41.5	7.9	33.3	24.6	27.8	95.4	63.3	84.0	979.6	11.2
24.08.2023	E	40.5	7.6	29.9	24.8	27.1	95.9	70.8	84.3	979.3	1.2
25.08.2023	ENE	37.8	6.7	33.1	25.7	27.8	91.1	59.3	80.3	979.3	0.0
26.08.2023	ENE	34.8	6.3	34.4	25.1	29.1	91.9	54.5	75.6	980.5	0.0
27.08.2023	ENE	32.9	7.5	34.9	24.6	28.9	93.9	50.6	75.7	981.0	0.0
28.08.2023	ENE	55.3	5.5	35.3	24.6	28.6	89.7	50.6	73.7	980.9	1.0
29.08.2023	E	31.9	3.7	37.1	25.1	28.4	89.0	44.9	74.0	981.5	0.0
30.08.2023	S	23.7	2.8	37.6	24.6	29.5	94.1	43.3	73.1	982.4	5.0
31.08.2023	S	38.3	3.1	38.3	26.1	30.5	91.4	42.2	72.4	982.6	0.0

Sept. 2023

Date	Wind Direction (Blowing From)	Wind Speed (Km/hr)		Temperature (°C)			Humidity (%)			Barometric Pressure (mBar)	Rainfall (mm)
		Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.09.2023	NW	23.5	3.1	38.4	25.9	30.9	92.3	44.7	72.5	982.4	0.0
02.09.2023	NNW	32.1	2.7	39.0	26.8	31.8	90.9	45.5	71.6	981.4	0.0
03.09.2023	NNW	62.0	5.5	38.3	24.8	28.3	92.1	48.3	81.1	979.7	3.4
04.09.2023	E	20.7	4.1	35.9	24.4	29.0	93.7	56.9	79.3	977.4	0.0
05.09.2023	S	51.1	3.1	38.8	24.4	28.6	95.9	46.2	80.7	976.0	47.4
06.09.2023	ESE	50.4	3.0	34.5	24.3	27.5	95.5	60.1	85.5	976.4	44.2
07.09.2023	NW	26.2	4.0	35.1	24.2	27.0	97.9	58.0	88.3	976.1	91.4
08.09.2023	NNW	35.1	6.6	31.5	25.2	27.1	94.6	70.2	86.9	976.6	0.6
09.09.2023	NNW	34.1	8.6	30.2	24.9	26.7	96.2	73.5	87.4	976.8	4.4
10.09.2023	ENE	38.8	6.0	32.2	25.1	27.2	97.1	68.8	88.2	976.6	16.8
11.09.2023	E	34.6	7.1	32.0	25.2	27.3	93.7	68.8	85.3	977.6	0.0
12.09.2023	ENE	52.6	5.6	35.5	24.9	28.2	93.0	55.8	81.4	978.5	1.0
13.09.2023	E	43.2	7.7	31.1	24.9	27.0	96.2	69.6	86.8	978.6	11.8
14.09.2023	E	37.0	6.1	32.2	24.3	26.5	98.3	66.9	91.4	977.8	19.8
15.09.2023	E	62.7	12.5	27.5	23.4	25.4	99.2	83.1	93.0	975.3	62.6
16.09.2023	NNW	39.3	9.7	31.9	24.5	26.6	93.7	63.9	84.7	979.0	2.8
17.09.2023	NNW	31.9	5.7	33.8	23.9	28.4	95.0	56.9	77.5	980.0	0.0
18.09.2023	ENE	31.4	4.3	34.6	24.1	29.3	94.3	53.8	74.9	980.2	0.0
19.09.2023	ENE	26.7	4.0	36.2	25.1	30.2	90.0	50.7	73.1	981.5	0.0
20.09.2023	S	43.0	3.0	37.6	24.6	28.7	94.7	51.4	81.3	981.4	7.8
21.09.2023	ENE	40.8	4.7	31.9	24.0	26.4	97.3	71.2	89.9	981.4	14.6
22.09.2023	E	31.4	5.5	26.0	23.8	24.8	99.8	89.9	95.6	981.3	32.8
23.09.2023	E	29.9	5.7	31.1	23.4	26.2	98.1	67.4	89.2	982.0	17.2
24.09.2023	ENE	40.0	4.3	36.2	24.1	27.5	95.2	54.4	82.7	981.8	0.0
25.09.2023	S	38.5	3.6	36.2	23.8	27.2	95.2	52.3	83.2	981.3	0.0
26.09.2023	NW	33.1	3.3	37.3	24.6	28.9	94.5	47.0	77.5	981.7	0.0
27.09.2023	NW	34.6	2.7	38.3	25.2	29.4	92.4	43.6	76.6	981.9	0.0
28.09.2023	ENE	20.3	2.3	37.4	25.5	29.4	92.3	50.8	77.1	981.5	0.0
29.09.2023	NW	36.6	3.0	32.9	23.9	27.3	94.1	63.9	84.9	981.3	12.4
30.09.2023	ENE	34.3	1.9	34.4	23.8	27.3	97.3	57.5	83.3	981.2	1.2

Annexure - II

Manual Ambient Air Quality Data
(In-House Monitoring during FY 2022-34)

Sampling Station/Location		AAQ 1 : Near AWRS				AAQ 2 : Near Brick Plant				AAQ 3 China Colony			
Month	Value	Parameters				Parameters				Parameters			
		PM 10	PM 2.5	SO2	NOx	PM 10	PM 2.5	SO2	NOx	PM 10	PM 2.5	SO2	NOx
		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Apri	Max	78.8	57.8	14.1	32.4	76.0	59.7	21.6	34.0	75.6	58.1	26.4	28.2
	Min	21.6	20.6	9.6	25.5	51.8	24.8	9.4	19.1	25.8	18.5	10.3	11.2
	Average	54.5	38.4	11.5	28.4	61.5	34.4	12.5	27.3	58.0	38.0	14.7	16.2
May	Max	86.2	48.8	13.1	20.9	82.7	44.4	12.9	21.1	79.7	42.1	11.6	20.0
	Min	34.7	27.3	7.8	13.7	33.2	23.5	7.0	11.6	41.2	21.6	7.2	10.9
	Average	56.8	36.5	9.9	17.4	53.0	34.3	9.7	16.9	52.6	31.0	9.5	15.0
June	Max	90.1	46.9	11.6	22.2	80.0	38.1	14.9	23.6	88.6	32.6	12.5	20.5
	Min	47.3	21.1	8.2	14.3	46.6	17.6	8.1	16.9	30.2	23.4	6.0	13.8
	Average	66.0	31.1	9.9	18.2	64.8	26.7	11.4	19.4	70.0	27.2	9.3	16.9
July	Max	54.0	25.2	14.5	24.3	49.0	24.3	15.1	28.3	39.6	24.1	14.7	28.3
	Min	22.0	10.3	8.6	14.9	23.8	14.8	9.4	15.0	22.1	8.7	7.7	15.8
	Average	36.0	18.1	11.4	18.8	32.7	19.0	12.0	21.5	30.8	16.0	11.1	20.0
August	Max	41.0	24.8	12.7	21.6	40.3	17.7	13.5	21.7	39.1	21.9	15.5	22.9
	Min	22.4	14.7	8.5	15.0	17.9	9.4	10.1	14.3	15.7	10.3	7.3	13.6
	Average	32.5	20.3	10.9	18.1	25.4	14.5	11.3	17.7	31.5	18.7	10.0	17.2
September	Max	28.8	17.5	13.6	21.7	32.3	19.8	12.9	22.6	30.4	18.0	14.2	20.8
	Min	23.9	11.6	8.7	15.6	21.2	14.1	9.1	15.0	25.1	13.9	9.6	14.4
	Average	26.2	15.7	11.0	18.2	27.0	17.0	10.4	17.9	26.8	15.5	10.7	16.9
NAAQMS Standard	24 Hourly	100	60	80	80	100	60	80	80	100	60	80	80

Note :-

1. Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NAAQMS)
2. The data is referring only to the tested sample and for applicable parameter and report submited to MPCB Board monthwise
3. This data is not to be reproducing wholly or in part, and can't be used as evidence in court of law.

ISO-KINETIC STACK MONITORING DATA (IN-HOUSE LAB)

Power Plant				Unit # 1						Unit # 2					
Sl	**Parameters**	**Units**	**MPCB Standards**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**
1	Height of Stack	Meter	-	275	275	275	275	275	275	275	275	275	275	275	275
2	Diameter of Stack	Meter	-	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
3	Flue Gas Temperature	0 C	-	130	123	123	120	121	119	127	125	122	122	123	120
4	Flue Gas Velocity	m/sec :	-	22.05	22.83	22.33	22.27	22.70	22.76	22.62	23.17	22.92	22.23	23.75	22.36
5	Flow of Exit Gas at NTP	Nm3/Hr	-	2429181	2559440	2503712	2515606	2558098	2577294	2510245	2584875	2575980	2498402	2663011	2526320
6	**PM**	Mg/Nm3	50	28.6	33.2	34.0	35.7	27.6	33.2	35.6	35.1	35.7	38.4	23.8	35.2
7#	**SO2**	Mg/Nm3	200#	719.8	792.8	789.2	784.2	785.3	738.5	756.5	825.7	769.9	861.1	807.5	774.2
8	**NOx**	Mg/Nm3	450	281.0	307.0	310.7	308.9	312.2	297.4	271.5	278.7	263.9	275.2	258.3	253.9
9##	**Mercury**	Mg/Nm3	0.03	0.0147	0.0147	0.0147	0.0143	0.0143	0.0146	0.0151	0.0151	0.0151	0.0145	0.0145	0.0151

Power Plant				Unit # 3						Unit # 4						Unit # 5					
Sl	**Parameters**	**Units**	**MPCB Standards**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**
1	Height of Stack	Meter	-	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
2	Diameter of Stack	Meter	-	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
3	Flue Gas Temperature	0 C	-	133	124	125	123	125	121	117	122	126	121	120	121	119	123	128	120	119	122
4	Flue Gas Velocity	m/sec :	-	22.84	23.02	22.90	22.76	23.03	23.28	22.05	23.32	22.81	22.41	22.44	22.76	22.31	23.15	22.72	22.98	22.39	22.65
5	Flow of Exit Gas at NTP	Nm3/Hr	-	2497143	2574043	2554833	2552079	2568464	2623469	2510090	2621336	2538333	2525546	2534886	2565085	2526815	2595021	2514973	2596252	2535737	2545461
6	**PM**	Mg/Nm3	50	32.2	37.2	32.0	30.0	38.8	31.3	29.4	38.9	39.3	32.7	35.0	38.8	39.0	41.2	42.3	34.7	29.6	41.1
7#	**SO2**	Mg/Nm3	200#	708.4	804.0	800.5	754.6	738.4	725.0	753.2	817.7	811.2	748.4	991.2	838.3	803.8	808.7	823.1	726.9	889.4	816.7
8	**NOx**	Mg/Nm3	450	284.3	295.4	299.4	336.7	285.8	290.6	297.1	311.2	289.3	291.8	329.9	314.8	284.9	332.2	323.0	321.5	296.9	343.9
9##	**Mercury**	Mg/Nm3	0.03	0.0167	0.0167	0.0167	0.0158	0.0158	0.0153	0.0146	0.0146	0.0146	0.0141	0.0141	0.0138	0.0158	0.0158	0.0158	0.0152	0.0152	0.0150

Note: 1. Test Method : PM - IS 11255 (Part- 1):1985, SO2- IS 11255 (Part 2) 1985, NOx- IS 11255 (Part 7) 2005, Hg -USEPA - 0060

2. The report is referring only to the tested sample and for applicable parameter.

3. The sample will be destroyed after retention time unless otherwise specified specially.

4. This report is not to be reproducing wholly or in part, and can't be used as evidence in court of law.

5 **#** As per MoEF&CC Notification the SO2 Limit will be applicable after installation of FGD (March 2023-March 2024)

6## Mercury monitoring & analysis is being done on quaterly basis through third party.

Waste Water Analysis Report

S.N.	Parameters	Unit	MPCB Standards	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23	
				STP-1	STP-2	STP-1	STP-2	STP-1	STP-2	STP-1	STP-2	STP-1	STP-2	STP-1	STP-2
1	TSS	mg / l	50	30	26	18	24	24	20	40	28	22	25	28	23
2	COD	mg / l	100	38	19	29	39	19.6	29.4	49	59	41	51	53	32
3	BOD at 27 0C for 3 days	mg / l	30	8	4	5	7	6	7	15	11	13	17	11	9

S.N.	Parameters	Unit	MPCB Standards	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23	
				ETP	Ash Pond	ETP	Ash Pond	ETP	Ash Pond	ETP	Ash Pond	ETP	Ash Pond	ETP	Ash Pond
1	pH Value	----	5.5-9.0	7.6	7.6	8.1	7.7	8	7.7	8.1	7.6	8.7	7.6	8.5	8.1
2	TSS	mg / l	100	22	33	22	26	26	26	31	26	21	57	23	63
3	COD	mg / l	250	29	--	29	--	42	--	53	--	42	--	21	--
4	BOD at 27 0C for 3 days	mg / l	30	8	--	7	--	12	--	13	--	13	--	9	--
5	Oil & Grease	mg / l	10	2.4	BDL	2.5	BDL	BDL	BDL	2.3	BDL	2.8	BDL	3.3	BDL

Note :- **Test Methods,**

TSS - APHA-24th - 2540 D,
COD-APHA-24th Ed 2017- 5220B Open Reflux Method,
BOD (at 270C for 3 days) - IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3-days at 27 ºC,
pH - APHA-24th -4500-H+B Electrometric Method
O & G - APHA-24th Ed 2023- 5520 B Liquid Liquid Partition Gravemetric method

-- Not Applicable

Ambient Noise Monitoring Data
(Plant Site)

Day Time in dB (A)

S. No	Locations	Apr	May	Jun	Jul	Aug	Sep
1	Near Shanti Niketan I II & III	60.6	58.36	57.26	59.8	59.5	57.8
2	Near Labour Hutment	57.3	56.23	61.04	63.6	62.4	64.6
3	Near Store Area	54.3	54.69	54.37	55.3	61.8	60.7
4	Gate No.1	51.2	53.55	50.06	51.2	52.5	50.3
5	Gate No.2	59.8	65.19	64.02	59.2	61.4	60.2
6	Gate No.3	73.5	69.06	70.01	68.5	68.9	67.3
7	Near OHC	45.0	44.39	43.05	62.9	59.5	46.7
8	Railway Siding	64.8	64.79	60.73	61.7	64.3	63.4
9	Near Reservoir 2	50.3	55.38	54.29	54.3	52.5	51.3
10	Near Ash Water Recovery Pump House	60.6	63.21	64.01	63.4	63.6	66.2
11	In China Colony	40.3	39.44	38.92	40.3	39.9	39.2
CPCB Standards (Industrial Area)		**75**	**75**	**75**	**75**	**75**	**75**

Night Time in dB (A)

S. No	Locations	Apr	May	Jun	Jul	Aug	Sep
1	Near Shanti Niketan I II & III	51.5	48.1	49.2	51.7	48.9	47.5
2	Near Labour Hutment	49.4	46.0	50.9	49.4	50.4	49.4
3	Near Store Area	46.3	44.9	46.7	46.3	46.8	45.2
4	Gate No.1	42.0	43.9	41.2	42.0	40.3	39.3
5	Gate No.2	49.3	51.8	52.1	49.3	50.2	50.2
6	Gate No.3	60.6	55.7	61.2	60.6	59.5	59.4
7	Near OHC	38.8	36.2	34.4	38.8	32.6	32.1
8	Railway Siding	52.8	52.8	50.2	52.8	49.3	47.8
9	Near Reservoir 2	42.3	42.3	41.7	42.3	38.9	37.8
10	Near Ash Water Recovery Pump House	51.3	51.3	53.0	51.3	52.3	50.3
11	In China Colony	35.0	34.5	32.7	35.0	33.0	31.4
CPCB Standards (Industrial Area)		**70**	**70**	**70**	**70**	**70**	**70**

Note :- Daytime refering (6.00 a.m. to 10.00 p.m.) and Nighttime (10.00 p.m. to 06.00 a.m.)

Annexure - III

Maharashtra Pollution Control Board

Site Name: M/s.Adani Power Maharashtra Private Ltd

From Date: 2023/04/01 To Date: 2023/09/30

Report Name: Custom Report, M/s.Adani Power Maharashtra Private Ltd

Report Created by APMPL on 2023-10-20 16:32:56

Sl No.	Time	CAAQMS_1-PM10 (ug/m3)	CAAQMS_1-PM2.5 (ug/m3)	CAAQMS_1-NOx (ug/m3)	CAAQMS_1-SO2 (ug/m3)	CAAQMS_2-PM10 (ug/m3)	CAAQMS_2-PM2.5 (ug/m3)	CAAQMS_2-NOx (ug/m3)	CAAQMS_2-SO2 (ug/m3)	CAAQMS_3-PM10 (ug/m3)	CAAQMS_3-PM2.5 (ug/m)	CAAQMS_3-NOx (ug/m3)	CAAQMS_3-SO2 (ug/m3)
1	2023-04-01	70.9	32.17	33.55	20.12	61.71	29.34	33.61	18.12	74.96	36.97	40.98	38.83
2	2023-04-02	70.91	26.64	33.55	20.12	66.6	29.32	33.61	18.12	85.09	37.37	40.97	39.1
3	2023-04-03	70.91	24.66	33.55	20.12	68.85	29.32	33.61	18.1	85.22	37.49	40.99	39.33
4	2023-04-04	70.9	28.85	33.54	20.12	69.2	29.31	33.61	18.01	84.63	37.53	40.97	39.48
5	2023-04-05	70.91	39.12	33.56	20.12	70.88	29.32	33.61	17.85	85.54	37.36	40.98	39.55
6	2023-04-06	70.91	39.27	33.56	20.12	68.95	25.32	33.61	17.65	85.24	37.33	40.98	39.57
7	2023-04-07	70.91	38.71	33.57	20.11	61.89	16.12	33.62	17.42	77.62	37.24	40.97	39.65
8	2023-04-08	70.91	20.13	33.54	20.11	62.82	16.75	33.6	17.23	77.8	37.01	40.97	39.57
9	2023-04-09	70.91	25.26	33.54	20.11	67.39	18.78	33.63	17.17	84.85	37.46	40.98	39.69
10	2023-04-10	70.9	36	33.56	20.11	55.53	15.23	33.62	17.18	77.3	36.92	40.97	39.74
11	2023-04-11	70.92	34.07	33.55	20.11	65.35	16.98	33.63	17.14	81.4	37.14	40.97	39.8
12	2023-04-12	70.91	36.68	33.55	20.12	70.88	21.73	33.63	17.13	85.24	37.7	40.98	39.77
13	2023-04-13	70.91	33.16	33.54	20.13	70.88	26.37	33.64	17.1	85.53	38.35	40.98	39.81
14	2023-04-14	73.55	36.89	31.51	22.25	68.38	23.41	30.96	18.19	83.08	37.6	38.71	40
15	2023-04-15	75.88	39.91	29.65	24.14	61.66	15.8	28.55	19.08	79.95	36.45	36.69	40.75
16	2023-04-16	75.88	39.86	29.71	24.14	56.07	18.81	28.57	19.06	78.1	36.99	36.68	40.11
17	2023-04-17	75.88	40.59	29.71	24.14	56.98	19.85	28.65	19.05	80.94	37.46	36.7	40.14
18	2023-04-18	75.88	40.26	29.7	24.14	63.43	20.46	28.62	19.01	80.83	37.15	36.68	38.59
19	2023-04-19	75.88	40.64	29.7	24.14	64.49	20.18	28.58	19.11	80.89	37.28	36.69	38.97
20	2023-04-20	75.89	40.91	29.7	24.14	60.42	16.34	28.56	19.09	78.48	36.68	36.68	38.77
21	2023-04-21	75.88	39.71	29.7	24.13	46.1	15.02	28.56	19	66.65	36.12	36.68	39.23
22	2023-04-22	75.88	39.69	29.71	24.14	53.67	14.71	28.55	18.98	76.12	36.28	36.67	39.3
23	2023-04-23	75.87	37.98	29.69	24.13	44.6	13.01	28.55	18.94	60.66	35.9	36.68	40.44
24	2023-04-24	75.88	38.98	29.7	24.13	51.55	13.44	28.56	19.17	70.57	35.9	36.67	40.8
25	2023-04-25	73.25	37.81	31.84	25.97	60.51	20.2	27.37	20.15	70.72	35.93	36.67	39.99
26	2023-04-26	70.92	36.02	33.71	27.62	48.91	21.58	26.28	20.92	70.54	36.07	36.69	39.77
27	2023-04-27	70.91	35.48	33.73	27.62	37.6	19.3	26.26	20.91	55.78	35.55	36.68	39.95
28	2023-04-28	NA	NA	NA	NA	38.24	19.9	26.27	20.85	57.81	35.62	36.66	40.62
29	2023-04-29	70.89	NA	34.25	27.62	30.59	17.52	26.23	20.69	41.42	35.3	36.66	40.77
30	2023-04-30	70.89	NA	33.7	27.65	NA	NA	NA	NA	35.13	35.15	36.67	40.78
31	2023-05-01	70.89	NA	33.71	27.66	NA	NA	NA	NA	35.01	34.92	36.67	40.74
32	2023-05-02	70.9	NA	33.71	27.67	NA	NA	NA	NA	40.92	35.25	36.69	40.79
33	2023-05-03	70.9	NA	33.92	27.68	NA	NA	NA	NA	55.57	35.59	36.67	40.8
34	2023-05-04	70.91	NA	34.15	27.69	NA	NA	NA	NA	73.23	36.05	36.68	40.68
35	2023-05-05	70.9	NA	34.52	27.73	57.79	26.88	26.26	14.01	78.72	36.74	36.69	40.25
36	2023-05-06	70.89	NA	33.71	27.75	56.96	26.45	26.39	13.42	80.48	37.43	36.69	39.63
37	2023-05-07	70.9	NA	33.71	27.75	60	26.37	26.38	14.11	80.47	37.34	36.68	39.26
38	2023-05-08	70.9	NA	33.71	27.76	61.78	26.03	26.38	14.4	80.93	37.22	36.67	38.79
39	2023-05-09	70.9	14.98	33.71	27.77	60.82	26.46	26.37	14.57	80.97	37.1	36.69	38.78
40	2023-05-10	73.52	32.64	35.39	29.18	60.82	26.75	26.38	15.91	80.94	37.21	36.68	38.86
41	2023-05-11	68.24	32.93	34.07	24.13	62.6	24.83	23.67	16.17	75.89	34.07	36.66	36.25
42	2023-05-12	68.24	34.33	34.07	24.13	63.76	27.12	23.51	16.31	75.95	34.24	36.67	37.5
43	2023-05-13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
44	2023-05-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
45	2023-05-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
46	2023-05-16	68.22	41.52	34.03	24.1	63.8	25.34	23.56	14.32	75.66	33.66	36.7	34.41
47	2023-05-17	68.24	41.48	34.1	24.1	60.76	24.04	23.62	13.79	75.92	33.61	36.69	36.23
48	2023-05-18	68.23	40.54	34.11	24.1	61.8	24.32	23.56	13.89	75.94	33.85	36.69	37.3
49	2023-05-19	71.45	39.31	35.81	22.1	63.06	25.84	22.16	15.42	72.59	34.21	34.62	36.69
50	2023-05-20	68.02	28.96	33.39	23.63	58.17	24.49	20.13	13.52	67.39	33.22	31.57	33.8
51	2023-05-21	66	29.29	31.51	24.63	57.28	23.45	19.59	12.6	65.79	32.54	30.67	32.78
52	2023-05-22	66.01	30.19	31.53	24.63	54.23	22.94	19.57	12.89	65.85	31.37	30.67	32.94
53	2023-05-23	66	30.13	31.53	24.62	56.64	24.47	19.58	13.79	65.77	32.6	30.67	32.87
54	2023-05-24	66.01	30.11	31.52	24.62	56.36	24.62	19.57	14.11	65.86	32.22	30.67	32.95
55	2023-05-25	65.99	30.16	32	24.62	57.28	22.49	19.57	15.75	65.77	30.98	30.66	32.77
56	2023-05-26	66.01	30.16	31.5	24.62	57.27	23.6	19.61	13.2	65.85	29.85	30.63	33.84
57	2023-05-27	66	30.2	31.53	24.62	57.27	22.38	19.52	14.29	65.71	30.88	30.66	34.51
58	2023-05-28	66.02	30.23	31.53	24.61	56.04	22.02	19.49	13.69	65.33	29.96	30.65	35.12
59	2023-05-29	66.02	30.19	31.53	24.61	52.47	22.38	19.7	14.22	65.01	30.24	30.66	34.75
60	2023-05-30	69.53	32.07	30.26	26.9	53.85	23.13	19.52	14.83	66.36	31.62	29.31	35.47
61	2023-05-31	71.16	32.85	29.68	27.93	55.73	22.27	19.52	13.33	66.75	30.79	28.72	36.33
62	2023-06-01	71.17	32.83	29.67	27.93	57.28	23.5	19.57	12.84	66.83	32.12	28.71	36.59
63	2023-06-02	71.17	32.86	29.7	27.93	56.86	22.73	19.97	12.63	66.76	31.41	28.69	37.45

64	2023-06-03	71.16	32.85	29.67	27.93	55.99	22.77	20.17	12.56	65.34	30.8	28.71	37.23
65	2023-06-04	71.16	32.84	29.68	27.93	53.77	21.6	20.19	12.31	66.52	30.16	28.7	36.74
66	2023-06-05	71.17	32.85	29.67	27.93	53.18	22.23	20.18	12.24	66.24	30.22	28.7	36.74
67	2023-06-06	71.16	32.84	29.68	27.93	56.45	23.78	20.21	12.13	66.77	32.13	28.7	36.64
68	2023-06-07	71.17	32.85	29.67	27.93	56.72	23.62	20.14	12.31	66.84	31.13	28.69	36.68
69	2023-06-08	68.24	31.36	26.67	24.45	53.57	24.97	18.54	12.87	67.15	32.36	27.2	33.94
70	2023-06-09	64.71	30.34	25.53	20.08	51.69	25.11	17.41	13.37	64.63	35.16	28.65	29.75
71	2023-06-10	63.72	30.36	26.03	18.81	51.78	23.16	17.42	13.36	63.16	33.83	30.14	28.37
72	2023-06-11	63.72	30.33	26.03	18.81	48.2	22.19	17.4	13.24	60.63	32.24	30.13	28.43
73	2023-06-12	63.71	30.36	26.02	18.8	45.18	21.56	17.39	13.15	59.32	32.12	30.13	28.2
74	2023-06-13	63.73	30.37	26	18.81	46.36	22.23	17.48	13.03	59.53	32.75	30.13	28.22
75	2023-06-14	63.72	30.36	26.01	18.81	50.91	22.54	17.19	12.97	62.06	33.35	30.12	28.23
76	2023-06-15	63.73	30.35	26.02	18.8	49.33	21.49	17.17	12.96	60.6	32.45	30.12	28.25
77	2023-06-16	68.98	30.62	29.74	21.93	65.09	26.65	22.72	16.9	76.17	35.18	33.86	31.67
78	2023-06-17	68.96	35.76	29.78	21.92	64.82	25.86	22.18	16.96	75.71	35.16	33.86	32.1
79	2023-06-18	68.97	35.74	29.77	21.92	65.1	27	21.75	17.04	76.15	35.33	33.86	31.96
80	2023-06-19	68.96	35.77	29.78	21.93	65.1	26.85	21.86	17.05	76.23	35.04	33.87	32.01
81	2023-06-20	68.97	35.78	29.77	21.93	65.1	26.34	21.79	17.05	76.18	35.27	33.86	31.74
82	2023-06-21	68.97	35.81	29.78	21.93	61.74	25.97	21.8	17.03	72.23	34.34	33.86	31.79
83	2023-06-22	65.54	31.36	28.41	21.49	46.88	21.12	24.13	16.12	58.82	31.91	32.2	31.55
84	2023-06-23	55.39	27.01	27.22	15.96	38.7	17.36	27.76	12.99	38.04	27.28	29.59	24.42
85	2023-06-24	61.42	22.19	28.29	14.78	46.28	22.52	29.23	18.02	52.27	34.83	32.66	19.77
86	2023-06-25	62.29	29.85	26.08	14.78	50.37	25.46	29.59	18.76	60.9	38.29	33.52	21.9
87	2023-06-26	62.29	30.75	26.09	14.81	43.3	22.25	29.78	18.9	38.8	35.64	33.51	21.89
88	2023-06-27	62.28	30.8	26.4	14.83	39.96	21.38	29.5	18.93	32.69	34.83	33.51	21.89
89	2023-06-28	62.29	30.84	26.08	14.88	41.87	21.85	29.52	18.86	37.28	35.24	33.5	21.89
90	2023-06-29	62.28	30.77	26.08	14.92	43.65	21.71	29.56	18.78	41.85	34.9	33.51	21.9
91	2023-06-30	62.28	24.6	26.32	14.93	40.96	21.44	29.56	18.69	40.44	34.77	33.77	21.91
92	2023-07-01	61.03	26	28.11	16.81	43.24	23.15	28.49	17.68	61.66	34.74	32.48	20.93
93	2023-07-02	59.91	26.66	29.99	18.47	42.75	23.67	27.52	16.72	61.23	33.12	31.54	20.03
94	2023-07-03	59.9	26.61	29.98	18.49	47.01	25.07	27.8	16.68	63.79	35.23	31.54	20.04
95	2023-07-04	59.23	26.81	29.51	18.12	48.51	25.45	27.52	16.95	69.27	36.19	31.18	19.69
96	2023-07-05	53.62	28.53	25.64	15.26	41.71	23.76	27.76	17.08	42.26	29.38	28.06	16.67
97	2023-07-06	57.76	31.62	28.64	17.43	44.68	27.55	29.63	19.09	53.78	32.5	30.87	20.26
98	2023-07-07	52.45	28.85	26.41	16.57	44.47	26.02	27.22	18.24	44.02	30.08	27.32	21.64
99	2023-07-08	48.46	23.3	27.24	17.98	45.97	27.44	28.01	18.75	42.17	32.47	28.99	24.19
100	2023-07-09	48.46	23.44	27.26	17.97	47.61	28.42	28.01	18.78	51.45	33.6	28.98	24.21
101	2023-07-10	48.45	23.35	27.27	17.98	47.46	28.4	28.02	18.87	51.63	33.65	28.98	24.22
102	2023-07-11	58.77	21.77	25.42	16.41	44	23.42	24.39	20.01	40.93	31.5	25.96	22.19
103	2023-07-12	59.61	19.8	25.28	16.29	45.27	23.79	24.21	20.17	47.44	33.6	25.76	22.06
104	2023-07-13	59.61	29.22	25.29	16.28	43.8	23.08	24.13	20.24	47.52	32.87	25.75	22.06
105	2023-07-14	52.81	27.61	22.73	13.12	42.89	20.65	26.13	16.72	42.15	32.15	21.78	20.03
106	2023-07-15	47.31	22.46	20.81	10.74	40.65	18.74	27.16	14.04	37.38	32.88	18.09	18.1
107	2023-07-16	47.31	26.73	20.77	10.71	38.34	17.81	27.13	14.19	26.57	31.28	18.1	18.12
108	2023-07-17	47.32	25.15	20.8	10.72	39.53	17.58	27.14	14.31	28.24	31.29	18.09	18.12
109	2023-07-18	48.58	28.07	22.8	12.92	40.05	18.44	25.73	15.06	32.61	31.47	16.27	16.49
110	2023-07-19	49.98	40.68	25.03	15.27	41.46	19.52	24.01	16.01	38.69	32.07	14.19	14.66
111	2023-07-20	50.92	40.25	25.34	15.47	42.63	20.62	23.9	16.41	46.59	33.09	14.58	14.89
112	2023-07-21	65.14	32.71	29.71	18.2	48.04	24.54	26.62	19.03	37.74	34.03	21.04	18.45
113	2023-07-22	53	24.84	29.1	14.32	43.58	18.52	27.91	15.45	37.73	31.4	24.14	21.71
114	2023-07-23	48.74	20.23	27.27	13.28	42.88	17.27	26.91	14.37	44.79	31.48	27.23	19.92
115	2023-07-24	48.74	22.4	27.32	13.28	44.17	19	26.97	14.47	49.88	33	27.23	19.92
116	2023-07-25	48.73	21.12	27.3	13.27	46.11	19.96	26.86	14.58	56.63	35.44	27.92	19.91
117	2023-07-26	48.74	19.11	27.28	13.28	44.76	18.85	26.84	14.65	56.78	33.85	27.21	19.96
118	2023-07-27	53.15	25.58	29.23	15.4	46	20.31	28.54	15.53	49.6	34.44	27.2	19.94
119	2023-07-28	41.3	19.55	25.61	14.4	50.64	14.78	22.09	13.02	25.49	22.87	20.42	15.38
120	2023-07-29	34.72	17.43	23.44	13.35	50.39	13.42	18.64	11.6	24.48	18.86	17.4	13.38
121	2023-07-30	34.72	16.54	23.45	13.36	39.57	14.1	18.7	11.62	28.63	18.82	17.39	13.37
122	2023-07-31	36.61	16.89	24.99	14.39	31.45	12.63	18.89	11.73	31.68	20.05	19.68	14.69
123	2023-08-01	42.84	19.5	23.69	14.59	34.32	11.27	20.73	12.93	41.66	25.84	25.22	17.9
124	2023-08-02	49.89	20.78	25.49	16.19	31.82	14.5	19.55	13.04	40.04	30.78	28.65	20.62
125	2023-08-03	47.59	23.61	22.74	14.43	28.52	15.27	20.36	13.07	31.9	34.41	27.72	20.88
126	2023-08-04	30	16.57	20.31	12.69	34.73	15.64	19.17	14.23	24.07	28	19.95	16.6
127	2023-08-05	32.93	17.45	22.07	14.5	33.9	14.2	19.88	14.92	28.72	29.77	23.27	18.45
128	2023-08-06	39.04	16.86	25.71	18.21	35.31	16.12	21.46	16.64	41.81	34.43	30.15	22.25
129	2023-08-07	39.17	21.41	25.91	18.29	39.51	16.3	21.64	16.83	50.18	34.9	30.3	22.37
130	2023-08-08	43.21	18.74	30.12	19.65	43.93	19.27	25.73	19.9	60	37.7	33.65	24.98
131	2023-08-09	49.18	20.17	25.91	14.94	39.44	17.99	22.52	16.43	66.83	35.93	29.92	22.18
132	2023-08-10	56.63	23.58	29.85	17.89	41.09	21.23	27.31	20.06	72.44	40.14	35.78	25.94
133	2023-08-11	56.32	27.97	29.72	17.99	40.47	20.97	27.1	19.94	69.18	39.86	35.53	25.76
134	2023-08-12	49.36	36.01	25.69	18.9	40.06	17.34	23.45	16.63	63.9	33.92	29.8	21.72

135	2023-08-13	41.35	19.61	23.13	14.75	38.21	15.78	21.55	18.46	51.57	29.49	26.11	19.49
136	2023-08-14	41.89	19.42	23.71	15.09	37.64	15.19	21.9	18.55	44.9	28.74	26.47	19.84
137	2023-08-15	48.49	21.88	30.24	19.18	47.56	16.9	25.89	21.36	62.25	28.95	30.64	23.67
138	2023-08-16	41.34	19.51	26.31	16.24	47.44	15.64	21.89	19.25	59.42	28.62	30.63	23.7
139	2023-08-17	41.82	19.85	26.61	16.42	43.9	21.08	22.06	19.52	60.43	29.34	30.87	23.88
140	2023-08-18	48.49	17.8	30.68	18.92	39.89	14.99	25.7	22.85	39.74	35.9	34.58	26.12
141	2023-08-19	48.75	18.21	30.58	18.75	39.59	14.74	25.86	22.73	39.47	36.03	34.39	26.37
142	2023-08-20	53.65	14.25	28.11	15.75	43.01	15.85	28.39	18.91	41.48	41.97	31.64	28.63
143	2023-08-21	53.65	20.6	28.12	15.74	46	17.16	28.4	18.9	63.54	45.18	31.64	28.6
144	2023-08-22	53.65	29.62	28.13	15.77	44.41	16.5	28.38	18.91	68.96	45.18	31.64	28.58
145	2023-08-23	58.66	25.9	31.12	17.79	48.01	17.36	28.09	20.69	74.25	48.16	34.02	29.89
146	2023-08-24	58.08	17.76	31.41	17.7	47.83	15.85	26.76	20.93	69.42	46.06	34.55	29.79
147	2023-08-25	49.83	17.66	27.76	14.61	42.74	14.27	23.55	17.42	49.58	35.71	32.22	27.64
148	2023-08-26	45.63	16.64	25.36	12.78	37.33	13.35	20.13	15.07	59.63	37.55	32.2	27.67
149	2023-08-27	48.82	17.32	27.81	15.69	35.57	11.64	19.94	13.28	58.01	37.23	32.23	27.69
150	2023-08-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
151	2023-08-29	61.69	21.09	33.18	19.25	43.98	15.97	22.53	15.89	68.28	37.6	35.17	24.95
152	2023-08-30	69.52	23.88	29.16	15.24	47.48	18.43	22.74	18.56	72.66	38.82	31.13	22.98
153	2023-08-31	64.66	20.61	25.74	12.75	46.06	16.83	22.61	20.23	67.66	36.94	27.31	20.29
154	2023-09-01	63.94	20.62	25.14	12.55	48.2	17.71	22.64	19.92	68.79	37.96	27.2	19.95
155	2023-09-02	59.39	18.55	21.31	11.18	46.59	16.28	22.74	18.52	62.04	36.89	26.31	17.52
156	2023-09-03	54.71	15.73	19.38	9.26	41.38	13.82	19.88	16.76	48.46	30.71	23.42	17.53
157	2023-09-04	63.71	19	26.25	12.79	42.65	14.94	24.86	19.23	58.51	36.65	30.18	19.83
158	2023-09-05	66.38	22.24	28.9	15.85	42.58	15.17	25.55	21.52	58.16	38.91	27.25	23.02
159	2023-09-06	44.08	17.71	22.49	11	33.11	11.25	18.78	15.53	28.05	29.8	20.44	23.04
160	2023-09-07	46.62	24.42	24.55	12.98	33.52	10.49	17.89	14.42	30	27.32	21.63	22.15
161	2023-09-08	49.62	25.31	26.95	15.25	35.54	10.58	17.12	12.97	42.04	28.76	23.06	21.09
162	2023-09-09	49.62	26.31	27.03	15.26	35.34	10.61	17.59	12.74	47.98	27.02	23.06	21.08
163	2023-09-10	50.85	22.26	27.32	15.57	35.88	10.84	17.84	12.61	45.61	30.34	23.47	21.28
164	2023-09-11	58.61	25.23	29.4	18.04	37.28	11.62	17.1	12.99	62.97	35.13	26.69	22.05
165	2023-09-12	54.87	28.29	28.6	17.83	38.04	12.96	15.85	13.44	64.65	33.77	26.23	20.71
166	2023-09-13	54.88	28.28	28.6	17.84	37.59	12.56	15.71	13.29	51.44	32.78	26.2	20.71
167	2023-09-14	55.98	29.77	26.47	16.81	37.77	11.76	16.41	14.06	38.04	30.73	27.05	21.5
168	2023-09-15	56.57	30.55	25.36	16.31	37.83	11.58	17.35	15.1	33.7	30.74	28.21	22.57
169	2023-09-16	56.57	30.55	25.38	16.31	38.08	12.5	17.34	14.99	36.27	32.84	28.19	22.56
170	2023-09-17	56.57	30.25	25.4	16.32	38.14	12.58	17.33	14.95	39.71	32.73	28.18	22.56
171	2023-09-18	60.42	30.55	26.59	17.85	39.8	16.35	19	17.82	52.46	34.45	29.26	24.09
172	2023-09-19	62.21	30.56	27.16	18.62	39.78	15.12	19.04	17.97	49.85	32.85	29.76	24.78
173	2023-09-20	66.79	33.88	25.15	13.73	35.68	16.36	22.49	19.54	37.33	31.31	26.82	24.78
174	2023-09-21	58.86	29.5	23.6	14.22	35.53	16.21	22.08	19.15	43.37	30.54	26.12	22.27
175	2023-09-22	40.95	21.97	19.34	11.42	32.34	13.38	19.62	16.05	28.13	25.12	21.92	17.34
176	2023-09-23	44.82	22.76	20.84	12.35	32.34	13.46	19.65	15.97	31.45	26.49	23.61	18.44
177	2023-09-24	50.76	25.48	23.28	13.77	33.34	13.82	19.67	16.16	38.25	29.41	26.22	20.13
178	2023-09-25	54.7	26.79	24.6	14.58	34	13.93	19.85	16.34	44.93	30.38	26.51	20.4
179	2023-09-26	62.6	29.39	27.21	16.18	38.37	15.68	21.46	17.67	53.11	32.98	29.16	22.91
180	2023-09-27	63.79	30.64	26.04	15.59	39.08	16.8	21.54	17.05	65.67	35.96	28.35	22.14
181	2023-09-28	66.69	33.63	23.07	14.03	40.58	19.52	21.96	14.6	69.56	37.84	26.22	20.13
182	2023-09-29	61.95	28.8	21.14	14.13	39.28	19.11	20.99	12.34	56.37	38.6	24.26	20.13
183	2023-09-30	67.25	28.79	25.04	16.24	41.67	21.4	21.52	15.99	55.16	38.65	24.28	20.13
184	**Prescribed Standards**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**	**100**	**60**	**80**	**80**
185	Maximum Value	75.89	41.52	35.81	29.18	70.88	29.34	33.64	22.85	85.54	48.16	40.99	40.8
187	Minimum Value	30	14.25	19.34	9.26	28.52	10.49	15.71	11.6	24.07	18.82	14.19	13.37
189	Geometric Mean	60.55	26.64	28.46	19.17	48.26	19.84	24.08	16.41	58.33	33.89	30.71	28.26
190	Median	63.16	28.8	28.62	18.25	46.08	20.07	23.56	16.66	60.9	34.24	30.65	26.12
194	Data Availablity %	97.27%	91.80%	97.27%	97.27%	95.08%	95.08%	95.08%	95.08%	97.81%	97.81%	97.81%	97.81%

Annexure - IV

Maharashtra Pollution Control Board

Site Name: M/s.Adani Power Maharashtra Private Ltd

From Date: 2023/04/01 To Date: 2023/09/30

Report Name: Custom Report, M/s.Adani Power Maharashtra Private Ltd

Report Created by APMPL on 2023-11-10 16:11:54

Sl No.	Time	Stack_1 Boiler_1-PM - (mg/Nm3)	Stack_1 Boiler_1-NOx (mg/Nm3)	Stack_1 Boiler_1-SO2 - (mg/Nm3)	Stack_2 Boiler_2-PM - (mg/Nm3)	Stack_2 Boiler_2-NOx (mg/Nm3)	Stack_2 Boiler_2-SO2 (mg/Nm3)	Stack_3 Boiler_3-PM (mg/Nm3)	Stack_3 Boiler_3-NOx (mg/Nm3)	Stack_3 Boiler_3-SO2 (mg/Nm3)	Stack_4 Boiler_4-PM (mg/Nm3)	Stack_4 Boiler_4-NOx (mg/Nm3)	Stack_4 Boiler_4-SO2 (mg/Nm3)	Stack_5 Boiler_5-PM (mg/Nm3)	Stack_5 Boiler_5 NOx (mg/Nm3)	Stack_5 Boiler_5-SO2 (mg/Nm3)
1	2023-04-01	38.7	336.24	872.47	38.61	315.77	869.01	37.69	335.25	848.54	36.08	304.35	780.59	40.64	362.03	850.87
2	2023-04-02	38.46	335.04	868.2	38.59	315.48	868.38	37.26	333.43	842.46	35.66	302.22	773.62	40.72	362.44	852.21
3	2023-04-03	38.12	333.28	862.12	38.08	311.2	858.12	37.11	332.64	839.79	39.57	321.98	839.08	39.66	357.09	834.39
4	2023-04-04	38.17	333.49	862.55	37.91	310.23	855.29	37.06	332.41	839.33	39.21	320.18	833.22	39.52	356.48	832.65
5	2023-04-05	38.2	333.77	863.83	38.4	314.02	865.11	36.91	331.65	836.52	39.44	321.47	837.17	39.72	357.39	835.45
6	2023-04-06	38.46	335.12	868.52	37.91	310.21	854.65	37.12	332.65	839.99	39.35	320.8	835.75	40.13	359.45	842.45
7	2023-04-07	38.56	335.6	870.21	38.1	311.39	858.16	37.23	333.2	841.62	39.22	320.23	833.63	39.17	354.7	826.51
8	2023-04-08	38.31	334.21	865.48	38.01	310.62	855.69	37.11	332.82	840.43	39.28	320.46	834.73	36.93	343.34	788.61
9	2023-04-09	38.48	335.11	868.5	38.46	314.36	865.74	37.39	334.01	844.31	39.8	323.01	842.87	40.15	359.66	843.18
10	2023-04-10	38.47	335.19	868.36	38.51	314.92	867.27	37.52	334.52	846.07	39.77	322.92	842.49	40.48	361.19	848.27
11	2023-04-11	38.74	336.62	873.44	38.55	314.92	867.41	37.29	333.57	843.11	39.78	322.97	842.82	40.35	360.62	846.22
12	2023-04-12	38.29	334.15	865.21	38.25	312.59	860.88	36.96	331.99	837.82	39.53	321.78	838.67	40.24	359.99	844.38
13	2023-04-13	38.02	332.75	860.44	38.14	311.79	858.89	37.21	333.18	841.68	39.5	321.55	837.78	40.05	359.04	841.18
14	2023-04-14	38.38	334.65	866.81	38.6	315.67	868.7	37.55	334.73	846.6	39.68	322.38	840.88	40.5	361.21	848.15
15	2023-04-15	38.42	334.85	867.69	38.52	314.59	866.41	37.54	334.65	846.38	39.86	323.31	843.74	40.45	361.07	847.66
16	2023-04-16	37.09	327.92	843.31	37.28	304.69	840.15	35.75	326.2	819.17	38.2	314.84	816.02	38.88	353.2	821.55
17	2023-04-17	38.14	333.35	862.3	38.02	310.76	856.06	36.84	331.4	835.94	39.28	320.34	833.88	40.2	359.81	843.45
18	2023-04-18	37.98	332.46	859.24	38.26	312.7	861.27	36.93	331.7	836.95	39.13	319.57	831.52	39.82	357.86	837.25
19	2023-04-19	37.75	331.44	855.72	37.94	310.37	854.61	36.6	330.23	832.27	38.72	317.56	824.81	39.54	356.54	832.32
20	2023-04-20	37.14	328.38	844.94	37.34	305.57	841.62	35.6	325.59	817.2	38.33	315.69	818.12	38.76	352.78	820.07
21	2023-04-21	36.35	324.22	830.48	36.67	299.75	827.96	35.09	323.12	809.54	37.55	311.74	805.66	38.18	349.75	810.17
22	2023-04-22	35.25	318.53	810.8	35.93	293.95	812.59	33.84	317.25	790.63	36.51	306.5	787.67	37.25	344.93	793.9
23	2023-04-23	35.05	317.31	806.29	35.57	291.46	804.69	33.21	314.34	780.93	36.38	305.85	785.45	36.97	343.61	789.61
24	2023-04-24	36.43	324.5	831.74	37.25	304.61	839.57	35.41	324.64	814.25	38.2	314.98	815.68	38.94	353.52	822.84
25	2023-04-25	37.1	327.85	843.09	37.56	307.14	846.23	35.96	327.36	822.87	38.56	316.78	822.22	39.56	356.61	832.84
26	2023-04-26	36.62	325.48	834.8	36.93	301.67	832.97	34.92	322.29	806.57	38.02	313.99	812.84	38.83	353.03	821.02
27	2023-04-27	33.82	310.86	784.22	34.71	283.98	786.26	31.79	307.71	759.43	34.9	298.48	761.18	36.11	339.43	775.78
28	2023-04-28	34.91	316.58	803.74	35.67	291.68	806.99	NA	NA	NA	36.27	305.19	783.86	37.08	344.12	791.18
29	2023-04-29	34.69	315.44	799.71	10.85	88.37	245.94	NA	NA	NA	35.68	302.33	774.21	36.75	342.56	786.15
30	2023-04-30	34.91	316.55	803.81	NA	NA	NA	NA	NA	NA	36.49	306.39	787.55	37.44	345.91	797.08
31	2023-05-01	34.3	313.3	792.63	NA	NA	NA	NA	NA	NA	35.52	301.56	771.31	36.47	341.22	781.64
32	2023-05-02	36.15	322.78	825.52	NA	NA	NA	NA	NA	NA	38.28	315.45	817.75	39.23	355.1	827.94
33	2023-05-03	36.71	325.85	836.07	NA	NA	NA	NA	NA	NA	38.75	317.7	825.42	39.34	355.62	829.77
34	2023-05-04	36.69	325.79	836.11	NA	NA	NA	NA	NA	NA	38.81	318.1	826.57	39.7	357.42	835.81
35	2023-05-05	36.31	323.69	828.72	NA	NA	NA	NA	NA	NA	37.72	312.57	808.17	38.65	352.09	817.72
36	2023-05-06	36.71	325.8	835.87	NA	NA	NA	NA	NA	NA	38.22	315.02	816.51	38.94	353.64	822.79
37	2023-05-07	35.7	320.54	817.59	NA	NA	NA	NA	78.63	197.41	36.93	308.56	794.79	37.63	347.06	800.87
38	2023-05-08	36.16	322.91	826.07	NA	NA	NA	34.58	320.82	801.93	37.19	309.9	799.14	38.21	349.87	810.16
39	2023-05-09	37.3	328.79	846.46	NA	NA	NA	36.03	327.64	823.9	38.42	316.21	820.09	39.12	354.44	826.04
40	2023-05-10	34.37	313.9	794.51	NA	10.41	30.45	32.9	312.77	776.11	35.72	302.53	775.14	36.74	342.55	785.73
41	2023-05-11	35.36	318.85	811.93	36	294.26	813.51	34.05	318.33	793.83	37.01	308.92	795.9	37.62	347	801.37
42	2023-05-12	34.7	315.5	799.93	35.63	292.42	806.04	33.27	314.66	782.07	36.44	306.08	786.35	37.17	344.73	793.44
43	2023-05-13	34.35	313.57	793.46	35.27	288.6	798.15	32.94	312.88	776.39	35.63	302.08	773.11	36.6	341.64	782.9

44	2023-05-14	35.04	317.21	805.84	35.53	291.24	804.22	33.26	314.51	781.59	36.02	303.99	779.36	36.86	343.26	788.3
45	2023-05-15	34.77	315.79	801.34	35.59	291.32	804.95	33.35	314.79	782.6	36.1	304.39	780.95	36.99	343.72	789.77
46	2023-05-16	35.94	322.01	822.92	36.42	298.27	822.83	34.78	321.68	804.7	37.35	310.67	801.74	37.81	347.85	803.77
47	2023-05-17	36.68	325.79	836.05	37.54	306.51	845.95	36.03	327.53	823.3	38.26	315.19	816.8	38.65	352.14	818.27
48	2023-05-18	37.81	331.44	855.63	38.1	311.31	857.86	37.15	332.85	840.59	39.49	321.51	837.61	40.18	359.71	843.32
49	2023-05-19	36.3	323.75	828.75	37.17	303.67	838.31	35.32	324.27	813.04	37.89	313.42	810.99	38.62	352.11	817.55
50	2023-05-20	37.77	331.49	855.7	38.11	311.75	858.31	36.91	331.61	836.42	39.01	318.98	829.67	39.69	357.26	835.04
51	2023-05-21	37.21	328.49	845.41	37.52	306.41	845.54	35.94	327.12	822.18	38.58	316.91	822.64	39.09	354.44	825.82
52	2023-05-22	37.94	332.23	858.39	38.16	311.57	859.06	36.85	331.45	836.12	38.96	318.72	828.22	39.75	357.49	836.27
53	2023-05-23	37.48	329.81	849.97	37.87	309.34	853.17	36.61	330.33	832.52	38.67	317.19	823.64	39.53	356.41	832.05
54	2023-05-24	37.22	328.66	845.49	37.6	307.16	847.15	36.4	329.41	829.67	38.94	318.71	828.39	39.66	357.21	834.63
55	2023-05-25	37.36	329.2	847.86	37.6	307.25	847.26	36.24	328.53	826.7	38.44	316.2	820.01	39.33	355.67	830.11
56	2023-05-26	35.65	320.5	817.32	36.19	296.6	817.95	34.12	318.73	794.79	36.84	308.16	793.52	37.58	346.73	800.04
57	2023-05-27	37.4	329.38	848.37	37.76	308.66	851.06	36.03	327.7	823.89	38.67	317.32	823.72	39.38	355.64	829.31
58	2023-05-28	37.97	332.27	858.77	38.21	312.01	860.31	37.11	332.65	839.73	39.36	320.68	834.91	40.15	359.65	843.09
59	2023-05-29	37.94	332.15	858.11	38.63	316.37	869.78	37.56	334.73	846.73	39.96	323.82	845.36	40.5	361.44	848.77
60	2023-05-30	37.94	332.27	858.12	38.46	314.15	865.66	37.64	335.15	848	39.83	323	842.62	40.38	360.75	846.54
61	2023-05-31	38.17	333.36	862.28	36.23	296.35	818.27	37.31	333.54	842.94	39.76	322.65	841.74	40.53	361.47	849.36
62	2023-06-01	38.61	335.57	869.77	11.4	92.78	257.49	37.31	333.62	843.15	40.04	324.05	845.83	40.47	361.24	848.29
63	2023-06-02	37.85	331.57	856.08	NA	NA	NA	36.86	331.42	835.73	39.39	320.87	835.9	40.16	359.61	842.76
64	2023-06-03	38.46	334.77	867.23	NA	NA	NA	37.48	334.51	845.89	39.51	321.37	837.14	40.43	361	847.6
65	2023-06-04	36.36	323.92	829.66	NA	52.18	145.1	34.87	322.17	806.04	37.41	310.84	802.55	38.14	349.68	809.84
66	2023-06-05	36.93	326.91	839.98	37.27	304.34	840.27	35.44	324.85	814.8	37.95	313.76	811.72	38.96	353.55	822.6
67	2023-06-06	37.84	331.58	856.46	38.63	315.55	869.21	37.49	334.5	845.82	39.5	321.42	837.26	40.56	361.7	849.92
68	2023-06-07	37.59	330.28	851.65	38.16	312.22	859.38	36.88	331.53	836.31	39.39	320.98	835.65	40.23	360.12	844.5
69	2023-06-08	38.18	333.35	862.59	38.19	312.03	859.66	36.69	330.71	833.59	38.95	318.82	829.07	39.77	357.96	837.28
70	2023-06-09	37.14	328.08	844.25	37.46	305.87	844.42	36.17	328.29	825.77	38.51	316.49	821.23	39.62	356.9	834.02
71	2023-06-10	36.21	323.23	827.08	36.57	299.28	825.72	34.68	321.25	803.22	37.43	311.05	802.96	38.25	350.15	811.22
72	2023-06-11	36	322.24	823.61	36.52	298.83	824.61	34.61	320.98	802.31	37.3	310.3	800.82	38.01	348.84	807.11
73	2023-06-12	36.69	325.83	835.84	37.24	304.63	839.9	35.53	325.32	816.4	38.16	314.56	814.75	38.77	352.65	819.56
74	2023-06-13	37.1	327.87	842.93	37.48	306.67	844.9	35.94	327.21	822.18	38.32	315.49	817.92	39.23	354.93	827.69
75	2023-06-14	37.47	329.73	849.54	37.53	307.09	846.07	35.95	327.18	821.97	38.15	314.54	815.16	39.3	355.35	828.71
76	2023-06-15	36.71	325.79	835.99	36.9	301.73	832.75	35.24	324.01	811.95	37.84	312.95	809.45	38.83	352.94	820.83
77	2023-06-16	34.8	316.02	802.01	35.55	290.8	804.32	33.3	314.6	782.02	36.01	303.8	779.39	36.62	341.91	783.87
78	2023-06-17	37.53	329.89	850.29	37.85	309.59	852.83	37.04	332.29	838.83	39.53	321.58	838.53	40.3	360.42	845.23
79	2023-06-18	36.89	326.76	839.36	37.64	307.54	848.18	36	327.58	823.55	38.61	316.72	822.29	39.42	355.77	830.03
80	2023-06-19	37.95	332.06	857.85	38.46	313.8	865.46	37.14	332.82	840.31	39.54	321.44	838.08	40	358.71	839.89
81	2023-06-20	38.14	333.17	861.61	38.47	314.52	865.54	37.43	334.11	844.53	40.01	324	846.22	40.48	361.13	847.94
82	2023-06-21	38.22	333.77	863.64	38.66	316.33	869.99	37.45	334.26	845.17	39.45	321.25	837.1	40.12	359.53	842.42
83	2023-06-22	37.42	329.49	848.75	37.56	307.16	847.14	36.7	330.77	833.8	38.84	318.16	827.04	39.52	356.37	831.81
84	2023-06-23	37.66	330.76	853.4	37.81	308.72	851.49	36.61	330.29	832.22	37.12	309.5	797.7	40.21	359.97	843.49
85	2023-06-24	35.88	321.48	821.02	36.03	295.03	814.64	34.88	322.1	806.1	33.02	288.94	729.58	37.75	347.76	803.27
86	2023-06-25	33.58	309.57	779.35	34.52	282.61	782.45	31.91	308.11	760.94	34.26	295.03	749.51	35.73	337.48	768.76
87	2023-06-26	35.17	317.87	808.47	35.86	293.46	810.95	33.49	315.75	785.36	36.17	304.87	782.65	37.13	344.6	792.81
88	2023-06-27	34.46	314.2	795.66	35.71	292.34	807.68	33.17	314.06	780.23	35.83	303.12	776.41	36.91	343.43	789.09
89	2023-06-28	35.16	312.22	789.35	35.92	288.52	797.07	33.57	312.45	775.37	35.05	299.24	763.45	36.28	340.35	778.4
90	2023-06-29	33.65	310.01	780.76	34.73	284.54	786.6	32.08	309.1	763.83	34.75	297.63	758.76	35.67	337.11	768.04
91	2023-06-30	33.81	310.88	783.94	34.98	286.4	792.35	32.33	310.02	767.08	34.85	298.23	760.34	35.92	338.41	771.91
92	2023-07-01	35.35	318.88	811.92	36.01	294.6	814.08	33.87	317.3	790.61	36.46	306.26	786.83	37.62	346.85	800.4
93	2023-07-02	35.08	317.5	807.18	36.12	295.86	816.67	33.96	317.7	791.84	36.48	306.38	787.35	37.31	345.44	795.69
94	2023-07-03	37.3	328.69	845.97	37.24	304.45	840.14	36.5	329.84	830.75	38.62	317.2	823.33	39.88	358.28	838.35
95	2023-07-04	37.43	329.56	849.1	37.84	309.79	853.29	36.53	329.8	830.77	38.51	316.66	821.68	39.75	357.54	835.92
96	2023-07-05	36.65	325.36	834.45	37.08	303.46	836.54	35.35	324.25	813.06	37.7	312.49	807.72	38.86	353.19	821.39

97	2023-07-06	34.81	315.91	801.61	35.62	291.42	805.47	33.27	314.69	781.92	36.09	304.4	780.89	36.95	343.7	790.12
98	2023-07-07	33.84	310.99	784.11	34.98	286.36	792.07	32.23	309.69	766.14	35.14	299.5	764.31	35.98	338.87	773.6
99	2023-07-08	33.66	310.13	781.22	34.81	285.3	788.77	32.15	309.23	764.59	34.78	297.81	758.77	35.68	337.25	768.43
100	2023-07-09	34.05	312.03	787.66	35.04	287.46	793.7	32.34	310.2	767.81	34.95	298.59	761.91	36.15	339.55	775.74
101	2023-07-10	35.68	320.6	817.7	36.25	297.01	819.22	34.29	319.38	797.36	36.87	308.4	793.98	37.78	347.76	803.39
102	2023-07-11	36.38	324.16	830.12	36.8	302.06	830.89	34.38	319.61	798.98	37.25	310.17	800	38.57	351.6	815.85
103	2023-07-12	37.11	327.82	842.89	37.49	306.09	845.35	35.93	327.09	822.74	38.35	315.88	818.92	39.03	354.15	824.22
104	2023-07-13	37.29	328.73	846.24	37.47	305.74	844.39	36.23	328.56	826.62	38.79	317.83	825.46	39.91	358.26	838.44
105	2023-07-14	36.73	326.04	836.86	37.05	303.09	836.13	35.33	324.27	812.6	37.59	311.91	805.61	38.93	353.53	822.38
106	2023-07-15	35.04	314.74	802.67	36.96	302.54	834.13	35.22	323.83	811.43	37.55	311.76	805.29	38.78	352.77	820.03
107	2023-07-16	NA	NA	NA	37.2	303.99	838.91	35.66	325.72	817.82	37.83	313.06	809.59	38.79	352.78	820.1
108	2023-07-17	NA	NA	NA	36.72	300.89	828.98	34.99	322.63	807.48	37.66	312.27	806.62	38.58	351.79	816.95
109	2023-07-18	NA	NA	NA	34.74	284.76	787.26	32.16	309.33	764.72	34.75	297.55	758.07	35.87	338.07	770.87
110	2023-07-19	NA	NA	NA	35.22	288.83	797.49	32.68	311.84	772.86	35.47	301.34	770.37	36.46	341.16	781.27
111	2023-07-20	NA	NA	NA	35.98	294.7	813.54	33.83	317.24	790.21	36.43	306.08	786.43	37.47	346.3	798.28
112	2023-07-21	NA	NA	NA	35.72	292.36	808.13	33.44	315.3	783.95	36.05	304.27	780.24	37.14	344.51	792.31
113	2023-07-22	NA	NA	NA	35.08	287.15	794.32	32.57	311.31	771.11	35.35	300.69	768.33	36.31	340.32	778.5
114	2023-07-23	NA	NA	NA	34.79	285.2	788.4	32.28	309.84	766.43	35	298.9	762.59	36.1	339.31	775.21
115	2023-07-24	NA	NA	NA	35.75	292.7	808.73	33.44	315.33	784.36	36.12	304.49	780.99	37.31	345.28	795.02
116	2023-07-25	NA	NA	NA	37.01	302.79	834.98	35.15	323.47	810.46	37.6	311.97	806.03	38.49	351.29	815.08
117	2023-07-26	NA	NA	NA	35.59	291.98	805.79	33.21	314.23	780.6	35.9	303.45	777.54	36.86	342.67	786.94
118	2023-07-27	NA	NA	NA	34.13	279.92	774.71	31.2	304.8	750.27	34.21	295.01	748.85	35.13	334.59	759.21
119	2023-07-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
120	2023-07-29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
121	2023-07-30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
122	2023-07-31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
123	2023-08-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
124	2023-08-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
125	2023-08-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
126	2023-08-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
127	2023-08-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
128	2023-08-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
129	2023-08-07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
130	2023-08-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
131	2023-08-09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
132	2023-08-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
133	2023-08-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
134	2023-08-12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
135	2023-08-13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
136	2023-08-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
137	2023-08-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
138	2023-08-16	38.67	332.67	873	39.33	325.67	883	38	338	856.33	NA	NA	NA	41	365	856.67
139	2023-08-17	38.9	337.58	876.56	3.45	28.38	79.53	37.74	335.76	849.44	NA	NA	NA	40.68	362.94	854.72
140	2023-08-18	38.88	338.35	876.92	NA	NA	NA	38.11	337.74	855.9	NA	NA	NA	40.82	363.57	855.1
141	2023-08-19	38.46	335.77	869.48	NA	NA	NA	37.54	335.75	848.87	NA	NA	NA	40.52	361.77	846.94
142	2023-08-20	37.25	329.56	845.94	NA	NA	NA	36.06	328.44	826.44	NA	NA	NA	38.44	351.75	818.31
143	2023-08-21	38.35	335.88	868.65	38.25	312.06	863.31	37.31	333.4	843.74	NA	NA	NA	39.97	359.56	844.21
144	2023-08-22	37.62	331.54	854.4	37.42	306.87	846.45	37.15	333.33	842.78	NA	NA	NA	40.87	362.73	853.43
145	2023-08-23	38.63	336.2	872.23	38.16	312.26	861.17	37.05	332.76	840.29	NA	NA	NA	40.86	363.44	856.13
146	2023-08-24	38.16	333.5	863.53	38.2	312.91	862.52	37.04	332.61	839.82	NA	NA	NA	40.43	361.42	849.02
147	2023-08-25	37.69	331.33	855.99	37.73	309.13	852.53	36.69	331.06	834.95	NA	NA	NA	39.73	357.89	836.67
148	2023-08-26	37.32	329.22	848.19	37.54	307.68	848.11	35.91	327.29	822.86	NA	NA	NA	39.82	358.15	837.95
149	2023-08-27	36.03	322.99	825.67	36.47	299.38	825.62	34.8	322.04	806.01	NA	NA	NA	38.21	350.48	812.62

150	2023-08-28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
151	2023-08-29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
152	2023-08-30	NA	NA	NA	38.22	313.54	862.88	37.76	335.94	850.85	NA	NA	NA	41.18	365.06	861.37
153	2023-08-31	NA	NA	NA	38.09	312.68	860.13	37.67	335.89	850.14	NA	NA	NA	40.96	363.82	857.03
154	2023-09-01	38.31	333.81	865.92	38.27	313.97	863.55	37.71	335.79	850.34	NA	NA	NA	40.86	363.03	854.7
155	2023-09-02	38.71	336.5	873.6	38.47	314.37	867.48	37.58	335.34	848.69	NA	NA	NA	40.83	363.39	855.67
156	2023-09-03	38.07	333.58	862.51	38.06	311.49	858.73	37.13	333.29	841.96	NA	NA	NA	39.94	359.1	841.64
157	2023-09-04	37.72	331.74	855.95	37.8	309.67	853.89	36.72	331.31	835.59	NA	NA	NA	40.07	359.67	843.14
158	2023-09-05	38.16	333.14	863.11	38.16	312.13	861.24	37.42	334.56	846.21	NA	NA	NA	40.88	363.65	856.64
159	2023-09-06	38.15	333.41	862.77	38.04	311.48	859.05	36.51	330.25	832.4	18.69	159.05	412.5	40.32	360.77	846.53
160	2023-09-07	34.05	312.52	789.86	34.92	287.45	793.66	32.37	310.61	769.46	33.92	299.42	765.22	36.18	340.26	778.19
161	2023-09-08	33.47	309.64	779.38	34.64	284.52	786.96	31.84	308.13	761.37	33.25	296.05	754.62	35.63	337.42	769.28
162	2023-09-09	33.75	310.79	784.19	34.71	284.5	788.54	32.13	309.34	764.92	33.63	298.05	760.18	35.86	338.52	772.4
163	2023-09-10	33.52	309.87	780.2	34.54	284.29	785.4	31.68	307.54	759.38	33.67	298.09	760.12	35.76	337.97	770.68
164	2023-09-11	34.96	317.26	806.24	35.68	293.04	808.97	33.69	316.95	789.4	35.09	305.39	784.81	37.31	345.76	796.43
165	2023-09-12	35.07	317.61	807.89	35.82	294.08	811.8	33.62	316.53	788.13	34.88	304.21	781.31	37.28	345.67	796.08
166	2023-09-13	38.07	366.51	843.79	38.45	307.14	846.59	36.9	327.06	822.49	38.25	316.1	821.48	40.34	355.74	830.48
167	2023-09-14	38.21	333.91	864.42	38.17	312.76	861.68	37.23	333.59	843.28	38.66	323.13	844.17	40.32	360.8	847.06
168	2023-09-15	37.73	330.47	855.43	37.77	309.9	853.3	37.35	334.25	844.87	38.19	320.96	837.96	40.26	360.5	846.07
169	2023-09-16	36.27	324.06	830.5	37.05	304.94	838.53	35.14	324.01	812.79	36.38	311.76	807.81	38.99	354.39	825.18
170	2023-09-17	35.23	354.92	793.7	36.17	289.05	799.26	33.36	310.83	770.42	34.91	299.47	765.82	37.41	341.31	782.97
171	2023-09-18	35.59	320.19	817.11	36.38	297.85	823.1	34.28	319.78	798.57	35.4	306.64	789.83	37.58	346.83	800.73
172	2023-09-19	35.23	318.56	811.37	35.92	294.19	814.03	34.3	319.75	797.63	35	304.74	783.02	37.23	345.24	794.56
173	2023-09-20	39.65	398.64	860.12	39.89	313.38	862.64	38.42	331.21	836.15	39.41	318.39	828.99	41.97	360.13	845.95
174	2023-09-21	37.95	333.26	860.13	38.16	312.28	861.11	36.96	332.33	839.16	38.07	320.08	834.35	40.14	359.91	844
175	2023-09-22	35.53	320.2	816.34	36.09	296.76	817.78	34.28	319.7	798.22	34.37	299.39	769.41	37.65	347.63	803.16
176	2023-09-23	37.32	393.69	816.32	38.24	298.13	823.95	35.92	318.86	796.91	26.03	220.28	558.62	39.89	349.76	811.55
177	2023-09-24	34.36	345.89	780.6	35.59	285.8	789.77	32.91	309.03	764.53	33.14	291.37	739.05	36.57	338.03	771.85
178	2023-09-25	33.57	310.26	781.23	34.77	285.53	789.85	32.13	309.61	765.89	33.7	298.09	761.13	35.97	339.13	774.53
179	2023-09-26	34.92	316.79	805.56	35.99	294.6	815.39	33.7	317.02	789.66	34.8	303.97	780.58	37.21	345.28	795.11
180	2023-09-27	33.44	309.81	778.92	35.06	288.01	795.7	32.54	311.37	771.49	33.92	299.34	765.59	36.17	340.08	777.48
181	2023-09-28	34.84	316.43	803.9	35.44	291.21	804.3	33.22	314.67	782.1	34.84	303.95	779.96	36.99	344.19	791.54
182	2023-09-29	33.93	311.63	787.03	34.71	285.15	788.84	32.08	309.49	765.43	33.67	298.31	761.38	35.93	338.91	773.69
183	2023-09-30	34.52	347.05	782.6	27.52	219.24	608.1	33.18	310.67	769.62	34.66	299.01	764.17	36.06	339.35	775.07
184	**Prescribed Standards**	**50**	**450**	**-**	**50**	**450**	**-**	**50**	**450**	**-**	**50**	**450**	**-**	**50**	**450**	**-**
185	Maximum Value	39.65	398.64	876.92	39.89	325.67	883	38.42	338	856.33	40.04	324.05	846.22	41.97	365.06	861.37
187	Minimum Value	33.44	309.57	778.92	3.45	10.41	30.45	31.2	78.63	197.41	18.69	159.05	412.5	35.13	334.59	759.21
189	Geometric Mean	33.48	299.16	762.22	32.56	266.07	734.2	33.25	304.82	764.3	32.71	273.07	798.77	38.66	352.04	817.66
190	Median	36.71	326.4	836.02	36.94	301.9	832.86	35.56	325.09	815.6	37.16	310.03	806.62	38.94	353.52	822.49
194	Data Availablity %	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52	88.52

Annexure – v

Monthly Abstract of Ash Generation and Utilization
(For the Period from 1st April 2023 to 30th Sept 2023)

All value in LMT

ASH GENERATION AND UTILIZATION					MODE OF ASH UTILIZATION						
Sl. No.	Month	Ash Generation	Ash Utilization	% age Utilization	Fly ash-based products viz. bricks, blocks, tiles, fiber cement sheets,	Cement manufacturing,	ready mix concrete (Ultra Fine Ash)	Construction of road and fly over embankment, Ash and Geo-polymer-based	Filling up of low-lying area;	Filling of mine voids;	Export (Cenosphere)
1	Apr-23	4.36	2.53	57.87	0.133	1.262	0.014	0.011	1.096	0.008	0.0003
2	May-23	4.09	4.19	102.4	0.190	1.194	0.010	0.022	2.764	0.012	0.0003
3	Jun-23	4.11	2.95	71.81	0.180	1.099	0.011	0.062	1.599	0.001	0.000
4	Jul-23	3.39	1.61	47.58	0.108	1.267	0.010	0.019	0.194	0.015	0.000
5	Aug-23	3.50	1.64	46.92	0.126	1.326	0.010	0.019	0.133	0.026	0.000
6	Sep-23	3.72	1.60	42.98	0.134	1.211	0.011	0.005	0.229	0.011	0.000
TOTAL		**23.18**	**14.52**	**62.66**	**0.871**	**7.359**	**0.066**	**0.138**	**6.015**	**0.073**	**0.001**

Groundwater Recharge through Rainwater Harvesting -at APL, Tiroda

Sr. No.	Month	Rainfall (mm)	Rainwater Harvesting (m3)
1	April – 23	50.7	18.53
2	May – 23	4	1.46
3	June – 23	204.6	74.76
4	July – 23	478.8	174.95
5	August – 23	267.8	97.85
6	September – 23	392.2	143.31
Total		**1398.1**	**510.87 or say 511**

Rainwater Harvesting Structure within plant premises

ADANI POWER LIMITED, TIRORA

Annexure - VII

GREEN BELT & PLANTATION DETAILS

- **Total Area Covered**: 258 Ha.
- **Tree Planted**: 6,25,837 Nos.
- **Shrubs Planted**: 60418 Sq. Meter
- **Green Carpet**: 3,22,194 Sq. Meter
- **Palm Tree:** 5882 Nos.

Plant & Shrubs Species used for Green Belt Development

Tree Species		**Shrubs species**
Scientific Name	**Common Name**	**Common Name**
Psidium guajava	Amarud	Bogunvellia
Punica granatum	Anar	Rose
Manilkara zapota	Chikoo	Furcaria
Phyllanthus emblica	Anola	Cassia biflora
Tamarindus indica	Imali	Lagerstroemia indica
Mangifera indica	Mango	Flower Beds
Citrus Limon	Lemon	Lawn
Carissa carandas	Karaunda	Exora Tall
Callistemon Lanceolatus	Bottle Brush	Golden Ficus
Casuarina	Saru	Ficus panda
Samanea saman	Monkey pod tree	Group plants
Ficus religiosa	Peepal	Nerium Bell (Yellow Ghanti Kanher)
Cassia siamea	Kassod	Hibiscus
Bauhinia purpurea	Kachnar	
Ficus benghalensis	Bargadh	Musanda
Delonix regia	Gulmohar	Nolino
Azadirachta Indica	Neem	Furcaria
Spathodea	Rugtoora	Junifer
Peltophorum	Pila Gulmohar	Ficus blackiana
Acacia auriculiformis	Babul	Headge
Jacaranda	Neela Gulmohar	
Neolamarckia cadamba	Kadam	
Arecaceae	Coconut, Fistal palm, Royal Palm, etc	
Ficus Golden	Pilkhan	
Mimusops elengi	Bakul	
Cassia fistula	Amaltas	
Tectona grandis (Teak)	Teak	
Bambusa Vulgaris	Bamboo	
Alstonia Scholaris	Satparni	
Earleaf Acacia	Australian babul	
Eucalyptus Tereticornis	Neelgiri	
Pongame Oiltree	Karanj	
Hardwickia	Anjan	
Nyctanthes arbor-tristis	Parijat	
Syzygium Cumini	Jamun	
Annona Squamosa	Sitaphal	
Psidium	Guava	
Millettia Pinnata	Karanj	
Terminalia Arjuna	arjuna	
Erythrina Variegata	Pangara	

ADANI POWER LIMITED, TIRORA

Front and surrounding View of the Admin Building

Near Unit 4 & 5 and Switchyards

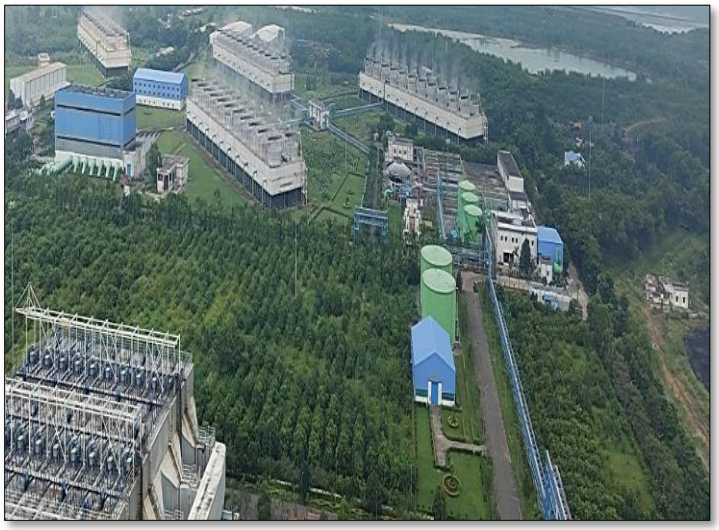
Towrds Reservoire - 1 site

ADANI POWER LIMITED, TIRORA

Near Switch Yards

BGT to Electrical Workshop

ADANI POWER LIMITED, TIRORA

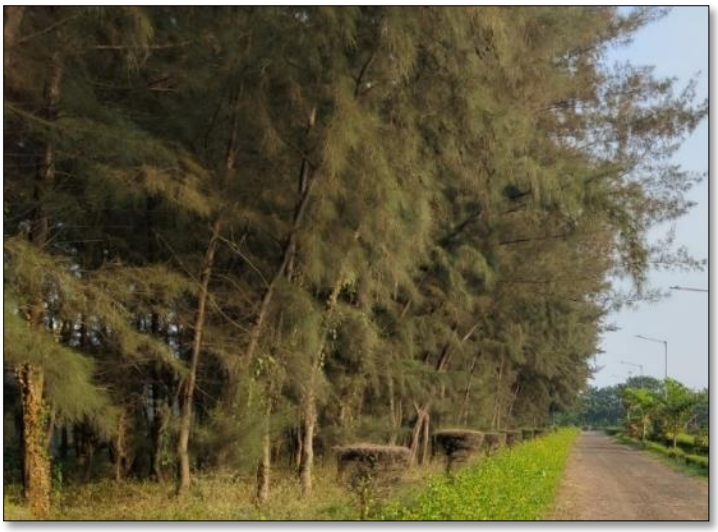


Aerial View of Cooling Tower Area

Ash Dyke 2 Reclaimed with Green Belt

ADANI POWER LIMITED, TIRORA

OHC & Main Canteen Site



Near Cooling Tower

Avenue Plantation near BTG Area

ADANI POWER LIMITED, TIRORA

Near BTG area Unit # 5

DM Plant Road

BTG#1 to Store Road

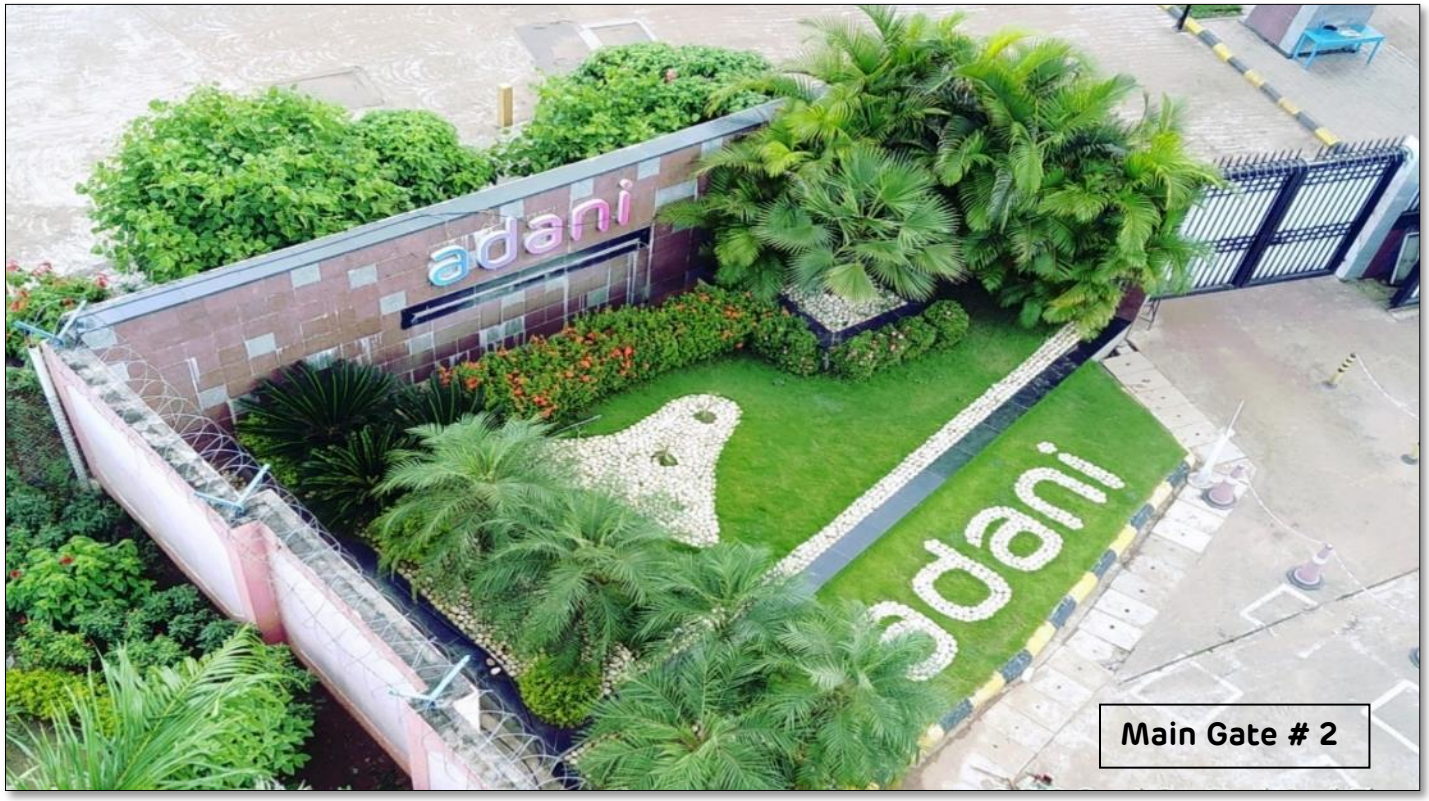
Ash Slury Pump House Unit# 4 & 5 Area

ADANI POWER LIMITED, TIRORA

Mango Orchard

CHP to BTG Road

From Gate # 3 (Material Road) to Ash Pond



ENVIRO ANALYSTS & ENGINEERS PVT. LTD.

NABET Accredited & MoEF (Govt. of India) approved

CIN No. : U28900MH1995PTC093129

H. O. : B-1003, Enviro House, 10th Floor, Western Edge II, Western Express Highway, Borivali (E), Mumbai - 400 066.
• Tel. : +91 22 2854 1647 / 48 / 49 / 67 / 68 • E-mail : info@eaepl.com • Website : www.eaepl.com

ENV/SWT/2023-24/034/2 **Date: 30.06.2023**

ISSUED TO:
M/s ADANI POWER LIMITED
Plot no. - A1, Tirora Growth Center, MIDC, Tirora,
Dist.: Gondia, Maharashtra – 441 911. India

Sample Particulars : Bottom Ash Sample

Sample Registration Date	: **22.06.2023**	Analysis Starting Date	: 23.06.2023
Quantity received	: **2 kg**	Analysis Completion Date	: 30.06.2023
Sample Type:	: **Solid Waste**	Sampled by	: EAEPL Representative

Toxicity Characteristic Leaching Procedure (TCLP)

TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
1	Alumina (as Al_2O_3)	% by mass	16.92
2	Iron Oxide (as Fe_2O_3)	% by mass	4.39
3	Silica (as SiO_2)	% by mass	45.57
4	Reactive Silica	% by mass	0.011
5	Magnesium Oxide (as MgO)	% by mass	1.33
6	Sulphur Trioxide (as SO_3)	% by mass	0.049
7	Alkalies (as Na_2O)	% by mass	3.02
8	Chloride (as Cl)	% by mass	0.078
9	Loss on ignition (as LOI)	% by mass	0.031
10	Cadmium	mg/kg	0.115
11	Chromium	mg/kg	2.90
12	Arsenic	mg/kg	0.17
13	Mercury	mg/kg	0.0128
14	Selenium	mg/kg	Nil
15	Cyanide	mg/kg	Nil
16	Cobalt	mg/kg	11.05
17	Copper	mg/kg	11.94
18	Lead	mg/kg	3.88
19	Molybdenum	mg/kg	Nil
20	Nickel	mg/kg	12.6
21	Tin	mg/kg	Nil

For Enviro Analysts & Engineers Pvt. Ltd.

Authorized Signatory

ENVIRO ANALYSTS & ENGINEERS PVT. LTD.

NABET Accredited & MoEF (Govt. of India) approved

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ENV/SWT/2023-24/034/2

Date: 30.06.2023

ISSUED TO:

M/s ADANI POWER LIMITED

Plot no. - A1, Tirora Growth Center, MIDC, Tirora,
Dist.: Gondia, Maharashtra – 441 911. India

Sample Particulars : Bottom Ash Sample

Sample Registration Date	: 22.06.2023	Analysis Starting Date :	23.06.2023
Quantity received	: 2 kg	Analysis Completion Date :	30.06.2023
Sample Type:	: Solid Waste	Sampled by :	EAEPL Representative

Toxicity Characteristic Leaching Procedure (TCLP)

TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
22	Barium	mg/kg	65.5
23	Calcium	mg/kg	124125
24	Iron	mg/kg	30686.1
25	Zinc	mg/kg	61.2
26	Aluminium	mg/kg	89506.8
27	Manganese	mg/kg	7.22
28	Antimony	mg/kg	Nil
29	Beryllium	mg/kg	Nil

Note: 1. Results relate to tested sample only.
2. Test report should not be reproduced partially.

REMARKS: Based upon request of party sample was tested for above mentioned parameters only.

For Enviro Analysts & Engineers Pvt. Ltd.

Authorized Signatory

ENVIRO ANALYSTS & ENGINEERS PVT. LTD.
NABET Accredited & MoEF (Govt. of India) approved
CIN No. : U28900MH1995PTC093129

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• Tel. : +91 22 2854 1647 / 48 / 49 / 67 / 68 • E-mail : info@eaepl.com • Website : www.eaepl.com

EAEPL/WW/2023-24/070/5 **Date: 21.09.2023**

ISSUED TO :
M/s. ADANI POWER LTD.,
Tirora, Growth Center,
MIDC, Gondia – 441 911.

Your Ref : As per Work Order 5700324724
Date : 26.04.2023

Sample Particulars : Ash Dyke Outlet
Location of sample : Stilling Chamber Out let

Sample Collection Date	: **13.09.2023**	Analysis Starting Date	: 14.09.2023
Quantity received	: **2 ltr**	Sampled by	: EAEPL Representative

TEST RESULTS

Sr. No.	Test Parameters	Unit	Method	The Environment (Protection) Rules, 1986 (Schedule-VI) General Standards For Discharge Environmental Pollutants Part-A Effluents for Inland surface wate standards	Results
1	**pH**	-	IS : 3025 (Part 11)-1983	5.5 to 9.0	7.96
2	**TSS**	mg / l	IS : 3025 (Part 17) 1984	100	18
3	**Total Dissolved Solid**	mg / l	IS : 3025 (Part 16) 1984	-	378
4	**Copper as(Cu)**	mg / l	IS : 3025 (Part II)-2004	3.0	0.012
5	**Iron (as Fe)**	mg / l	IS : 3025 (Part II)-2004	3.0	0.14
6	**Manganese as (Mn)**	mg / l	IS : 3025 (Part II)-2004	2.0	0.043
7	**Mercury as (Hg)**	mg / l	IS : 3025 (Part II)-2004	0.01	< 0.0005
8	**Cadmium as (Cd)**	mg / l	IS : 3025 (Part II)-2004	2.0	0.013
9	**Selenium as (Se)**	mg / l	IS : 3025 (Part II)-2004	0.05	0.015
10	**Arsenic as (As)**	mg / l	IS : 3025 (Part II)-2004	0.2	0.019
11	**Cyanide as (CN)**	mg / l	IS : 3025 (Part 27)-1986	0.2	< 0.005
12	**Lead as (Pb)**	mg / l	IS : 3025 (Part II)-2004	0.1	0.012
13	**Zinc as (Zn)**	mg / l	IS : 3025 (Part II)-2004	5.0	1.76
14	**Total Chromium as (Cr)**	mg / l	IS :3025(Part 52)-2003	2.0	0.013
15	**Oil & Grease**	mg / l	IS : 3025 (Part 39)-1991	10	< 4

For **ENVIRO ANALYSTS & ENGINEERS PVT. LTD.**

Authorized Signatory

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Foundation

Adani Foundation

CSR TIRODA

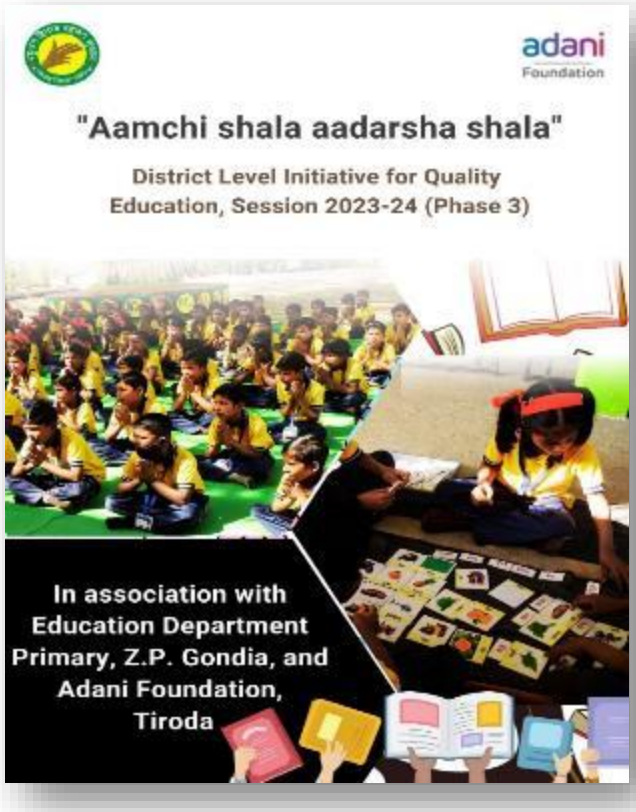
Six monthly report

(April-September)

FY- 2023-24

The program is Initiative of Adani Foundation & Education department of Gondia. To enhance the quality education of government Zilla Parishad Schools by improving school environment (Advancing infrastructure and quality education).

This programme is purely motivation and active community participation driven providing a modern day solution to revive the Govt. Primary & secondary schools who are losing their strength to private schools. Competition is started in **595** Primary (1st to 4th /5th) schools of Gondia district. For review and to understand the progress of the program, Cluster level and Block level meeting were conducted by respected stallholders at their Blocks and clusters. Also did school visit by Adani foundation team.



➢ School visit

Resp. George Thomas sir (Head Education) visited Z.P. Upper Primary School, Kharra, Gondia block.

Z.P. Upper Primary School, Kharra is the 1st winner school of Adani Foundation's Aamchi Shala Aadarsh Shala competition for 2023, Sir engaged with students, SMC president, Gram Panchayat Sarpanch, and teachers. This was the remarkable gathering of esteemed individuals in education.

- **Scholarship distribution for meritorious students.**

Due to low income, most people in the area rely on farming as their primary source of income, and as a result, they can only afford the fees charged by institutions and colleges to educate their children by 10th grade. This has led to students needing help to obtain an education from reputable institutions.

We started the scholarship form distribution in nearby five villages to provide this year's scholarship. This scholarship will motivated merit students, inspired them to work hard, and encouraged other students to do their best in their studies.

- **Udaan Program**

Under this project, exposure tours are organized wherein school students are giving chance to visit the APML Tirora, to get an insight into the large-scale business operations and thus get inspired to dream big in life.

The exercise stimulates the young minds to dream big and help them become entrepreneurs, innovators and achievers of tomorrow, and thus play an active role in the process of nation building.

Total **1353** Participants visited Adani Power Maharashtra Ltd from **26** schools and institutions

- **Summer Camp**

For holistic development of child even in summer break. Adani foundation organized 8 days summer camp in Z.P.U primary school Gumadhwada. To ensure the students continue to practice learning and keep their interest in school. In this camp 100 students of class 2nd to 7th are participated.

- **Education Kit Distribution**

The primary school in tribal village Murkut was closed in 2016, due to low enrolment, which has resulted in considerable hardships for the students and their families. This year, in collaboration with the education department, we're contributing to reopening the school through various activities. On the opening day, we distributed education kits to 40 students. The event was attended, Z.P president, vice president, former MLA, District Education Officer, Z.P members, villagers, parents, and Adani Foundation

team president, vice president, former MLA, District Education Officer, Z.P members, villagers, parents, and Adani Foundation team.

- **Days Celebration under education**
  - **National Reading Day**

On the occasion of National Reading Day, Adani foundation Tirora, in collaboration with Z.P. Upper primary school Kharra, organized a series of engaging programs that aimed to promote the joy of reading among students and community members. The day commenced with an impactful Awareness Rally, named "**Pustak Dindi,**" held in Kharra village. Following the rally, a small program was organized near the Gram Panchayat, where the school engaged with villagers to create awareness about the value of reading. Through informative discussions. To conclude the event, a special reading session was conducted for all students, creating an atmosphere of enthusiasm and shared learning. Some students even adorned Maharashtrian attire, adding a cultural touch to the "Pustak Dindi" and celebrating the rich heritage of the region. By involving **100** students and **community members** in these programs, the event successfully fostered a love for reading and created a sense of unity and shared responsibility towards education.

- **Drawing competition**

On the occasion of world environment day conducted drawing and slogan competition in nearby villages to create awareness among the children. Near about 150 students from 6 villages participated in the drawing and slogan competition on "Solution to plastic pollution." 20 winners were felicitated at the award ceremony on Jun 10th.

- **Yoga day**

  Celebrated Yoga day at Z. P. Primary school Gumadhawra with the participation of 110 students, teacher staff, Gram Panchayat members, and the Adani Foundation team.

- **Celebration of Rakha Bandhan Utsav**

  We hosted an exciting Rakhi-making competition at Z.P. High School & Jr. College Tirora, bringing together 40 students from grade 6 to 10. To honor their creativity, we awarded prizes to the top 5 Rakhi's. Also, students from Meritorious Public School Tirora marked the day with enthusiasm. Joined by APL employees, security team (Who staying away from home) and the Adani Foundation team.

- **Teachers day & Hindi Diwas Celebration**

  In the month of Sept'23, we celebrated Teacher's day on 5th September & Hindi Diwas on 14th Sept. with Aamchi Shala Aadarsha Shala Participated schools of Tirora block. On the occasion of Teachers day students took a charge of teacher, HM and manage whole work of school. This activity gave them experience of teaching, work management, leadership, etc.

Community Health Programme

Mobile health care Unit (MHCU) and Health Check Up camps

MHCUs are operational and provide quality healthcare service at the doorstep of 25 nearby villages of APML in Tirora block at free of cost.

General Medical Health Camp- Organized 12 General Medical Health camps in 12 villages. Total 801 patients (Male – 348 and Female- 453 were benefited from these camps.

Regular OPD- MHCU visits in 25 villages & consulted total 17671 patients (Male- 7921 and Female- 9750).

Samajik Suraksha Labh Abhiyan

Under the "AYUSHMAN BHARAT PRADHAN MANTRI JAN AROGYA YOJANA" we have started the registration at villages, this month we have done the registration of **205** villagers from 7 villages. with support of **Sub district hospital** Tirora. Till date we have done **252** registration in 8 villages.

Supports Aditi (Rickets patient) for Life-changing treatment.

Adani Foundation supported worth Rs. 2.50 lakh towards Aditi's treatment. Aditi, a young girl facing significant health challenges due to Rickets type A2. This genetic disorder, resulting from a defect in the vitamin D receptor gene, has caused malformed bone growth and an excruciatingly painful condition. The lack of treatment options for such rare diseases exacerbates the difficulties faced by patients like Aditi.

Multi-Specialty Health Checkup Camps

Two multi-specialty health checkup camps were conducted in 2 Village. Total **553** patients benefited by this camp.

Cancer Screening Camp

Conducted cancer detection and screening camps along with Rashtrasant Tukadoji Regional Cancer hospital. Total **46** patients visited the camp. **9** patients identified as a suspected.

Sustainable Livelihood Development

Milk collection and chilling center

Adani Foundation has supported local farmers, to form Tiroda Farmers Producer Company (TFPCL) for dairy development. Also facilitated them to established Anuradha dairy, operating three Milk Collection cum Bulk Milk Chilling Centres at Jamuniya / Berdipar, Chikhali & Kawalewada and initially 42 milk collection centres in other villages started by women SHG members of MAVIM (Mahila Arthik Vikas Mahamandal). AMUL dairy is collecting milk from Anuradha dairy on daily basis. More than 1800 dairy farmers are assosicited with Anuradha dairy, they are getting additional rate approximately Rs. 2.5 to 3 / liter. Average daily milk collection is 2.00 Lakhs liters on monthly basis with monthly turnover Rs. 1.00 Corers

Animal Husbandry and Related Initiative (Dhanalakshami Program)

Adani foundation has started Livestock Development Center programme in 26 villages of tirora block with the support of Baif institution of sustainable livelihood development.

To support farmers for dairy business and develop dairy farming as an additional source of livelihood by improving productivity of local cows and buffaloes. Two livestock development centers (LDC) are running at Khairbodi and Kawalewada respectively covering 26 villages.

Sr. No.	Activity	Cumulative Progress Apr to Sep 2023.
1	AI	914
2	AI (Sorted Sex semen)	452
3	PD	706
4	PD (Sorted Sex semen)	416
5	Camps	2
6	Normal Calving	232
7	SSS Calving	102

- **Income generation Initiative for tribal women farmers "MFS" (Money from Silage, SRI & Organic farming, and Vermicomposting).**

Income generation initiative 50 farmers cultivated maize for silage making. This month We done the maize cutting and store it in airtight bag for 45 days. After 45 days the silage will be ready to feed cattle and for sale.

- Yield per acre is - 5 tone
- Per Acre benefit - Rs. 16,000/-

- **Distribution of Sapling for Tree plantation ;- Vruksh Se Vikas**

Deforestation is one of the reasons for climate change. This has affected the lives and livelihoods of population. To reduce greenhouse gas emissions in order to limit global warming we has made a global commitment to plant 100 million trees by end of 2030. Adani Foundation has plans to contribute towards achieving the said ambitious target. Hence within our ambit and intervention areas we have done 4110 tree plantations in 50 villages, Nagar-parishad, Gramp Panchayat, and Government schools

- **Organic Base Multi-cropping program**

Promoting sustainable agriculture and enhancing farm income through, the Organic Base Multicropying program 22 farmers were completed the turmeric and ginger cultivation in their farm. This program exemplifies commitment to support farmers and empower them with organic farming techniques, thereby contributing to the agricultural sector.

- **Samajik Suraksha Labh Abhiyan**

Conducted the awareness camp of "Pradhan Mantri Fasal Bima Yojana" in nearby villages. Under this we have done the registration of 48 farmers from Kachewani, Balapur, Chikhali, and Barbaspura villages, and completed the the insurance of 60 Hect. Farm land.

- **Vegetable and fruit shop**

We inaugurated a new **"vegetable and fruit shop"** this month at Shantigram township Tirora. This remarkable initiative is powered by four SHG women, who are managing and running the shop. Supported by 'Tirora Pragatishil Mahila Producer Company Ltd' .

The inauguration ceremony witnessed Mrs. Ratna Biswas, Mrs. Rangnekar, the president and secretary of the Pragatishil Mahila Producer Company Ltd., and the Adani Foundation team. **This venture uplifts and empowers these incredible women entrepreneurs.**

Turnover of this vegetable shop of two months is Rs. 2.85 lakhs

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Capacity building & Support for income generation activity (IG)

▪ Agarbatti making

Skilling women to provide financial and nutritional security to HHs. 20 Agarbatti Machines are installed in 5 villages (Garada, Ramatola, Tikaramtola, Mendipur, & Gumadhawada), total 60 SHG women are successfully ruining this business. Agarbatti Making programme is ongoing.

- Total Agarbatti Production - **34270 Kgs**
- Total Income Earned- **Rs. 2044930/-**

▪ Mushroom Cultivation Programme

- With the collaboration of Mahila Aarthik Vikas Mahamandal (MAVIM), we started Mushroom Cultivation training to SHG women at Tiroda block.
- We facilitated detail training on theoretical concept and practical demonstration of Oyster Mushroom Cultivation.
- This training was for 44 Mushroom Sakhi's (leading person from every village who will support SHG women's for mushroom cultivation) from 44 villages of Tirora block.
- These Mushroom Sakhi's train and support 20 SHG women from each village.
- Total 880 SHG women's will be involving in Mushroom cultivation this year.

adani Foundation

Community Infrastructure development

- **Water Conservation Work**

The deepening and development of ponds in rural areas significantly impact the livelihoods of the local communities. These ponds serve as a reliable water source for various activities such as agriculture, livestock rearing, and domestic use. The water collected in the ponds helps improve crop yields and productivity by providing a dependable irrigation source and water for livestock, especially during dry spells. Overall, the deepening and developing ponds in rural areas is an effective way of improving the socio-economic well-being of the local communities. Total 4344 Cum work completed the deepening and development work of pond at Nimgaon village, under water conservation activities.

- **Construction of Ghat - Steps of River- at Tapowan in Kawalewada village**

Tapowan ashram beside the Wainganga River basin is one of the holy pilgrim in Kawalewada village, most of villagers as well as tourists visited for their cultural activities at the place, while visitors visited the place it is danger to enter in river due to unavailability of safe access for the visitors, seeing the requirement we have started construction of Ghat- steps of River at Tapowan ashram on Wainganga River basin. The step work is completed.

- **Drinking water facility at Ramatola Hamlet of Kachewani village**

The Construction of RCC water storage tank is ongoing at Ramatola Hamlet of Kachewani village under drinking water facility work. The drinking water project will help to restart difunctional drinking water scheme at Ramatola hamlet and provide safe drinking water to 93 families, as well as help to reduce drudgery of women for managing drinking and domestic water requirement for the family.

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Special Events

- **Special Day Celebrations**
- **GO RED**

We successfully completed the blood donation drive and collected 1527 units of blood. Employees, family members, trainees and support staff have donated blood on the occasion of 61st birthday of Hon'ble Chairman Sir on 24th June.

- **World Environment Day Celebration**

On the occasion of World environment day, we organized different activities in nearby villages. Awareness session on Plastic pollution, Ash utilization in forestry, Agriculture & Other Avenues: Near about 50 to 60 Farmers, Community leaders, and other beneficiaries attended the said program & learned "Effect of open air burning of plastic, information about miss management of plastic, solution to plastic, Life cycle analysis, Action plan and utilization/Management of fly Ash.

- Drawing and Slogan competition.
- **Fire safety Week**

Adani Power Maharashtra Ltd,Tirora organized fire safety training program on the behalf of fire safety week inauguration, The programme was organized in 3 school, More than 750 students, 60 teachers staff, Anganwadi sevika, and Govt. officials attended this said programme and " how to be safe"& measures to adopt during fire hazards situation.

- **Foundation Day Celebration**

  Adani Foundation Day– Celebrated 27th Foundation Day of Adani Foundation on 11th Aug 2023. along with APL- station, HODs. And Team members.

- **Birthday Celebration**

  Celebrated Our Beloved Chairperson Respected Dr. Priti G. Adani Ma'am birthday on 29th Aug, 2023.

adani Foundation

Media Coverage

अदानी फाउंडेशनचा उपक्रम • चार हजार नागरिकांना फायदा

25 गावांसाठी 'मोबाइल हेल्थ केयर युनिट'

गोंदिया, ब्यूरो. अदानी फाउंडेशनतर्फे परिसरातील नागरिकांना आरोग्याच्या दृष्टीने एक नवीन उपक्रम सुरू करण्यात आला आहे. या उपक्रमांतर्गत नागरिकांना मोफत व गुणवत्तापूर्ण आरोग्य सुविधा उपलब्ध व्हावी, या उद्देशाने फाउंडेशनतर्फे 'मोबाइल हेल्थ केयर युनिट' अभियान राबविण्यात येत आहे. या उपक्रमांतर्गत परिसरातील 25 गावांचा समावेश करून सुमारे 4 हजार नागरिकांना निःशुल्क आरोग्य सुविधा पुरविण्यात येणार आहे. [illegible]

आदिवासी महिला शेतकऱ्यांनी मुरघास शेतीतून घेतले एकरी २५ हजाराचे उत्पादन

गोंदिया ■ अदानी फाउंडेशन तिरोडा द्वारा जिल्हा प्रशासन गोंदियाच्या मार्गदर्शनाखाली तिरोडा तालुक्यातील घोटी गावातील ५० महिला शेतकऱ्यांना मका लागवड शेती व मुरघास निर्मितीचे प्रशिक्षण एग्रीकल्चर डेव्हलपमेंट ट्रस्ट बारामती पुणे येथे देण्यात आले.

सदर प्रशिक्षणानंतर घोटी येथील ५० महिला शेतकऱ्यांनी ५० एकर शेतीमध्ये मका लागवड केली. त्यानंतर त्याचे मुरघास तयार करून पाच रुपये किलो दराने तो मुरघास अदानी फाउंडेशन ने तयार केलेल्या तिरोडा शेतकरी उत्पादक कंपनी द्वारा सुरु असलेल्या अनुराधा डेअरी मधील दुग्ध उत्पादकांना विक्री करण्यात आला. त्यामुळे दूध उत्पादन वाढीसाठी पशुपालकांना मदत झाली आहे. या माध्यमातून एकरी २५ हजाराचे उत्पादन तीन महिन्यामध्ये महिला शेतकऱ्यांना मिळविले. पारंपरिक शेतीला फाटा देत मुरघास निर्मिती हा सुद्धा एक चांगला उत्पन्नाचा स्रोत या माध्यमातून शेतकऱ्यांना मिळाल्याचे अदानी फाउंडेशनचे हेड विमुल पटेल यांनी सांगितले. सदर मका लागवड व मुरघास निर्मिती या कार्यक्रमाच्या यशस्वीतेसाठी अदानी फाउंडेशनचे कार्यक्रमाधिकारी कैलास रेवतकर व इतर कर्मचाऱ्यांनी परिश्रम घेतले.

School restarts at Naxal-hit Murkotdoh village after 6 years

■ District Correspondent
GONDIA, July 1

THE only primary school of the remote and Naxal-affected Murkotdoh village that was closed down in the year 2016 due to less strength was restarted for the children from June 30 after six years' gap. Zilla Parishad President Pankaj Rahangdale inaugurated the school at a brief ceremony conducted in the school campus.

ZP President Pankaj Rahangdale, Vice President Yashwant Gunvir, former MLA Sanjay Puram at the function.

Former MLA Sanjay Puram, ZP Vice President and Education Committee Chairman Yashwant Gunvir, ZP members Hanuwat Vatti, Geeta Lilhare, Pramila Gunvir, Vimal Katre, Chayya Nagpure, Vandana Kale, Sarpanch Jamuna Markam, Salekasa Nagar Panchayat President Virendar Uikey along-with Education Officer Dr Mahendra Gajbhiye, Block Education Officer Vishal Dongre, Adani Foundation's Bimool Patel and Rahul Shejao were prominently present. In all, 22 students were present at the reopening ceremony. It may be noted that Murkotdoh is situated on the borders of Gondia (Maharashtra), Madhya Pradesh and Chhattisgarh. The place is considered to be hyper Naxal sensitive with tribal major population. People there are still far from the development. To improve upon the conditions, recently the administration has built approach road and a Joint Task Force (JTF) camp was also brought up as a security measure. After the closure of the school, the villagers were sending their children to Jamakudo, Salekasa and others places situated at the distance of some 15 to 20 Kms.

Addressing the gathering, ZP President Rahangdale said that they are committed for the development of the place and also to provide quality education for all. He assured that in coming time they will make efforts for all the required adequate facilities for the people and students. Former MLA Puram, ZP Vice President Yashwant Gunvir also spoke on the occasion.

Sarpanch Markam putforth the demand for health sub centre, to start bus facility and to make available pure drinking water facility for the village people. Panchayat Samiti members Archana Madavi, Nitesh Walde, Jumansingh Uprade, Sunita Raut, Rekha Funde, GP member Invate, alongwith villagers were present in good numbers. Adani Foundation provided school kits to all the students.

Pradeep Sharnagat conducted the proceedings and Waghmare proposed a vote of thanks.

20 एकड़ खेत में लगाई हल्दी और अदरक

■ अदानी फाउंडेशन का उपक्रम

संवाददाता | तिरोड़ा (गोंदिया)

अदानी फाउंडेशन तिरोड़ा द्वारा जैविक खेती कार्यक्रम अंतर्गत तहसील के 22 किसानों का चयन कर 20 एकड़ खेत में प्रायोगिक तत्व पर जैविक पद्धति से हल्दी और अदरक की रोपाई की गई है।

इस उपक्रम का मुख्य उद्देश्य यह है कि परिसर के किसान सिर्फ धान फसल का उत्पादन ले रहे हैं। जिससे खेती की उपजाऊ क्षमता बढ़ नहीं रही है। अगर फसल में बदलाव होता रहा तो खेती की उपजाऊ क्षमता निश्चित रूप से बढ़ने में मदद होगी। साथ ही धान फसल को आवश्यकता के अनुसार दाम नहीं मिलने से किसानों की आर्थिक उन्नति नहीं हो रही है। ऐसे में फसल पैटर्न बदलाव समय की जरूरत है। ऐसे विचार फाउंडेशन प्रमुख बिमुल पटेल ने व्यक्त किए। अदानी फाउंडेशन तिरोड़ा के माध्यम से चयनित 20 किसानों को प्रति एकड़ 30 हजार रुपए की हल्दी व अदरक बीज दिए गए। साथ ही मार्गदर्शन भी किया जा रहा है। उक्त उपक्रम सफल हुआ तो निश्चित रूप से किसानों को इसका लाभ मिलेगा व अधिक से अधिक किसानों इस फसल की ओर रुझान बढ़ेगा।

अदानी फाउंडेशनचा उपक्रम

'वृक्ष से विकास' कार्यक्रमांतर्गत विविध प्रजातीच्या वृक्षांचे वाटप

तिरोडा, (श.प्र.). स्थानिक अदानी फाउंडेशन द्वारा राबविण्यात येत असलेल्या 'वृक्ष से विकास' या कार्यक्रमांतर्गत तिरोडा तालुक्यातील 50 गावातील 300 शेतकऱ्यांना आंबा, फणस, पेरू, जांभूळ, सागवान, बकान, मोहगणी, ताम्हण, अशोका यासारख्या फळ झाडे वाटप केली.

अदानी फाउंडेशन हेड बीमुल पटेल यांनी, अदानी समूहाचा 2030 पर्यंत एक ट्रिलियन वृक्ष लागवड मोहिमेत या उपक्रमाद्वारे हातभार लागेल व पर्यावरण आणि अर्थव्यवस्थेत योगदान देणाऱ्या स्थानिक प्रजातींच्या वृक्षांची संख्या वाढविण्यास 'वृक्ष से विकास' हा कार्यक्रम महत्त्वाचा ठरेल असे सांगितले. तसेच अदानी फाउंडेशन चे कार्यक्रमाधिकारी कैलास रेवतकर यांनी वृक्ष से विकास या कार्यक्रमाच्या माध्यमातुन शेतकऱ्यांनी फळझाडे व इमारती लाकूड देणाऱ्या झाडांची लागवड केल्याने त्यांना अधिकचे उत्पादन मिळेल व तसेच पर्यावरण रक्षणाकरिता हातभार लागेल. या उद्देशाने अदानी फाउंडेशन द्वारा हा उपक्रम राबवित आहोत, असे सांगितले.

3000 पौधों का किया गया वितरण

■ **तिरोडा (त.सं).** अदानी फाउंडेशन के वृक्ष से विकास कार्यक्रम के तहत तिरोड़ा तहसील के 50 गांवों में 300 किसानों को आम, कटहल, अमरूद, जामुन, सागवान, अशोक जैसे फलों के पेड़ों के साथ-साथ इमारती लकड़ी के 3000 पेड़ वितरित किए गए हैं. पेड़ों का वितरण अदानी पॉवर प्रमुख कांति विश्वास के मार्गदर्शन में किया गया. अदानी फाउंडेशन के प्रमुख बिमुल पटेल ने कहा कि यह पहल 2023 तक अदानी समूह के वन ट्रिलियन पौधारोपण मिशन में योगदान देगी और वृक्ष से विकास कार्यक्रम पर्यावरण और अर्थव्यवस्था में योगदान देने वाले स्वदेशी प्रजातियों के पेड़ों की संख्या बढ़ाने में सहायक होगा. साथ ही अदानी फाउंडेशन के कार्यक्रम अधिकारी कैलास रेवतकर ने कहा कि वृक्ष से विकास कार्यक्रम के माध्यम से हम अदानी फाउंडेशन की इस पहल को इस उद्देश्य से क्रियान्वित कर रहे हैं कि किसान फलदार और इमारती लकड़ी के पेड़ लगाकर अधिक उत्पादन प्राप्त करेंगे और पर्यावरण में भी योगदान देंगे.

adani Skill Development

SAKSHAM- ADANI SKILL DEVELOPMENT CENTRE

An initiative of Adani Foundation, a CSR wing of ADANI Group of Companies, A section 8, Non-for-Profit company, **"Adani Skill Development Centre"** is registered on **16th May 2016** to focus on Skill Development activities to contribute in Nation Building to bridge the Skill Gap demand & supply. Adani Skill Development Centre, Tiroda is the first SAKSHAM Skill Centre set up on 14th Dec 2016 and also the first one to obtain work orders to train 335 candidates from the Tribal Department (GoM) along with Resume services, Nagpur. The first batch of ASDC Tiroda commenced on 21.04.2017 for imparting Welding and Electrician trade training to I.T.I. passed Tribal Youth of Gondia and Bhandara district.

VISION

- To make everyone Skilled, Employable & Entrepreneur to benefit them in gaining or advancing their career aspiration to uplift the social life of Citizens of India with mapping the demands of Industries of getting Trained Manpower

MISSION

- To create a transformative educational experience for candidates by focusing on bridging the industry skill gap and by creating a collaborative environment open to the free exchange of ideas, where research, creativity, innovation, and entrepreneurship can flourish with a sustainable livelihood.

OBJECTIVE

- Sustainable development in and around the geographical locations of Adani Power Ltd, Tiroda.
- Bridging the wide gap between demand & supply of human resource.
- Spreading awareness regarding availability, needs and vision for career development and education.
- Facilitating, spreading awareness, creating new opportunity to upgrade skills by organizing various skill training in the region.
- Improving overall status of rural youth and women in the society by enhancing their entrepreneurship skills.
- Encouraging & helping local youth to become self-dependent and live a dignified life.
- Building a feeling of harmony in the society by creating a rapport of goodwill, mutual trust and respect.

HIGHLIGHTS

- To date, a total of 3,409 candidates have undergone training at our facility. Among these candidates, 1,320 were trained in domain-specific trades, while 2,089 received training in non-domain trades. It is noteworthy that all our trained candidates have achieved a 100% pass rate. Furthermore, the placement success rate for candidates trained in domain-specific trades consistently exceeds 90%.
- We have signed Memorandums of Understanding (MOUs) with around 15 companies to accommodate 900 candidates, and we have also established an MOU for our in-house batch. Additionally, we have consistently organized online job fairs to disseminate information about job opportunities with these affiliated companies to both our trained candidates and their parents. Moreover, a monthly alumni meet program has also been conducted for candidates currently enrolled in training programs.

- Our centre has been actively engaged in providing support to the APL Technical Training Department and HR Department in the selection process of apprentice candidates, as well as in conducting induction programs for ITI, Diploma, and degree candidates.
- In June 2023, our Beauty Therapist Center received a visit from 19 village Sarpanch's and other community leaders from neighboring areas. Subsequently, in July 2023, we organized the World Youth Skill Day program for students in the Welding Technician, Assistant Electrician, and Beauty Therapist batches, which saw the participation of a total of 56 candidates.
- On a special note, in celebration of the esteemed Chairperson's birthday, ASDC Tiroda initiated its first batch comprising 21 female candidates from rural and tribal backgrounds in the Assistant Electrician course. This initiative is particularly significant as it promotes inclusivity in traditionally male-dominated courses. We are hopeful that these candidates will excel in their training and future careers.
- Additionally, on the occasion of the Chairperson's birthday, we organized a tree-planting program to contribute to environmental conservation and sustainability.

TRAINING STATISTICS:

In the year 2022-23, Enrolled 219 candidates at ASDC Tiroda.

ASDC Tiroda Training Details FY 2022-23					
Sr.	**Trade**	**Enrolled Candidates**	**Drop Out Candidates**	**Total Trained**	**Total Placed**
1	Assistant Electrician	96	0	96	80
2	Welding Technician	72	0	72	65
3	Domestic Data Entry Op.	14	0	14	10
4	Fitter: Mechanical Asse.	7	0	7	6
5	Beauty Therapist	30	0	30	23
	Total	**219**	**0**	**219**	**184**

In the year 2023-24, Enrolled 158 candidates at ASDC Tiroda.

ASDC Tiroda Training Details FY 2023-24					
Sr.	**Trade**	**Enrolled Candidates**	**Drop Out Candidates**	**Total Trained**	**Total Placed**
1	Assistant Electrician	53	0	53	49
2	Welding Technician	45	0	45	43
3	Beauty Therapist	60	0	60	55
	Total	**158**	**0**	**158**	**147**

BEST PRACTICES.

- **Safety Induction Program:** At the commencement of batch, we provide training on fire & safety, first-Aid and waste & environment management for all the candidates.
- **5-S Implementation at the Centre:** 5-S quality management implementation and maintain regularly.
- **Placement Drives conducted virtually:** In the critical situation of COVID-19 we conducted an online Job fair (Shares all companies related information) for all trained candidates and parents.
- **Individual Candidates documents dossier:** Placed Individual Candidates documents dossier file with Index of Individual Candidate Dossier.
- **Live Online Training using Projector and White Board:** We are taking initiative for more effective live online practical E-learning using projector, due to this actual interest of students is increasing and it is very effective. Students giving feedback on such type training is very helpful to better understand. Students can feel like an actual classroom training environment.

- **Live Practical:** Online live practical arranges for students and demonstrate and explain live practical and find students' performance.

Glimpse

Class Room

Electrical Workshop

Computer Lab

Welding Workshop

Electrical Workshop

Welding Simulator

Beauty Therapist Classes

Stories of SAKSHAMAARTHIs

With the high education costs, it becomes challenging for weaker sections of society to access quality education. Most of the learners in this segment of society discontinue their studies and choose meagre employment to support their family. However, there are few exceptions that, through their will and determination, capitalize on the opportunities offered to them and earn a dignified and sustainable standard of living. One such story is of Ms. Pradhnya Somendra Dahate.

Belonging to an economically backward family, Ms. Pradhnya Somendra Dahate comes from the rural region of Arjuni, Tehsil, Tiroda Dist. Gondia His father, the family's sole bread earner, is a small welding workshop owner, with a bare minimum income of Rs. 8,000 per month. As a result, increased living costs have made it hard for him to meet the basic needs of the family. This compelled Pradhnya not to go for higher studies and instead, choose a job that helps him provide for his family. He began to work in father small welding workshop nearby to contribute to his family's revenue but due to absence of required skills, he was unable to succeed.

One day, Pradhnya came to know about the Skill India Mission and the various training programs under the initiative. He considered this to be a great opportunity and visited the Adani Skill Development Centre Tiroda, an authorized training partner of the National Skill Development Corporation, where he met the training Centre trainer.

He understood the components of the training, gained information about the Welding Technician Course, potential job profiles in the sector, scope and entrepreneurial idea of self-contracting among other factors. Assuring himself and his family, he enrolled himself for the three-month course where he became proficient at his skills and sectorial knowledge. Additionally, he also learnt how to converse in Basic English, operate computers, present himself, and write resumes along with theory and practical classes.

After completing the course, she began working in father small welding workshop. After that, she has been working in father workshop with an income of Rs. 20,000 per month. She has been working with father and enjoying the work. After securing a sustainable future for his family, she now plans to work overseas and has his passport ready to make this dream a reality. Pradhnya is one of the millions of successful aspirants who have obtained better livelihood opportunities from the Adani Skill Development Centre **Tiroda,**

LiFE
Lifestyle for Environment

BEAT PLASTIC POLLUTION

adani
Power

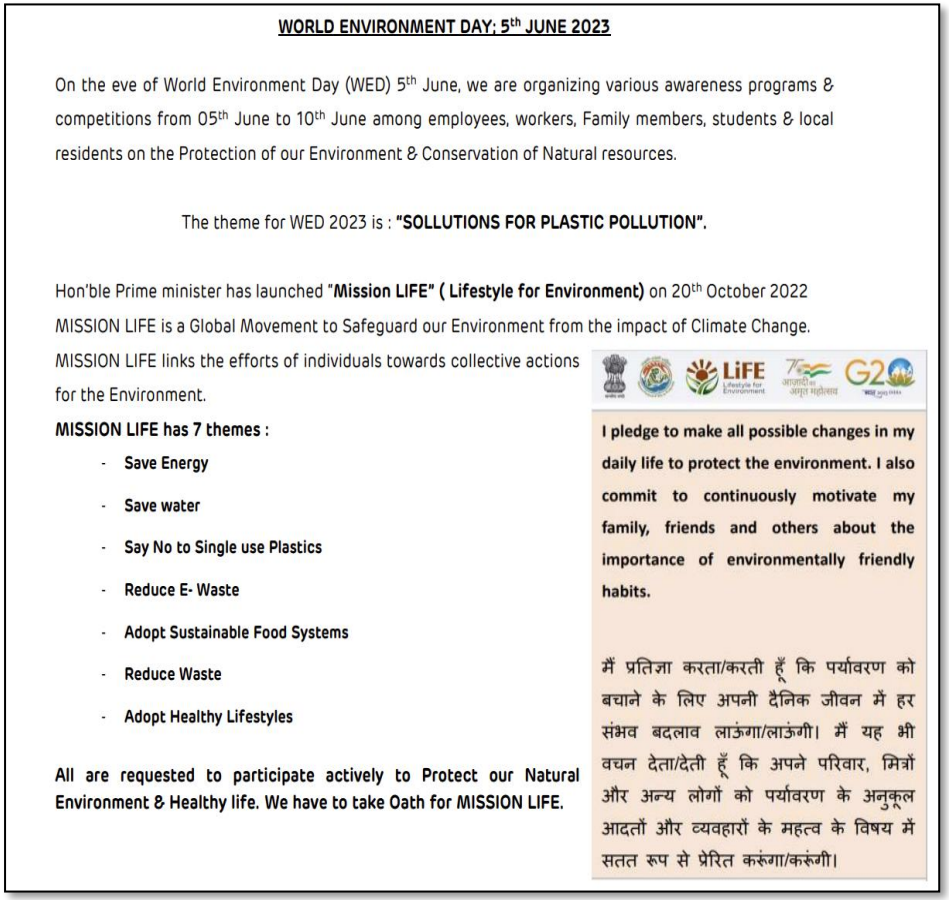
Adani Power Ltd. Tirora

Program Details

Mission Lifestyle for Environment & 5th June World Environment Day' 2023 Program :

On the eve of 5th June 2023, we are organizing various awareness programs & competitions from 5th June to 10th June among workers, employees, students, family members & Local residents on Environment Protection & Mission Lifestyle for Environment.

The Station Head and Sr. Officials, employees & family members participated in the program with full of enthusiasm. An oath on "Mission Lifestyle for Environment" taken by the participants (around 300). Station Head addressed the audience and emphases the **Mission Life 7 Theme :- Save Energy, Save water, Say No to Single use Plastics, Reduce E-Waste, Adopt Sustainable Food Systems, Reduce Waste and Adopt Healthy Lifestyles**. Also added that we should motivate others to adopt a highly-sustainable lifestyle for healthy Environment. Thereafter, inaugurated the Green Rally followed by mass tree plantation. Adani Group has started a new initiative to plant 100 million trees by 2030. Today, at Township & Plant premises around 500 saplings planted. The Mission Life awareness programs and pledge taken in different Departments/Section of the plant.



WORLD ENVIRONMENT DAY; 5th JUNE 2023

On the eve of World Environment Day (WED) 5th June, we are organizing various awareness programs & competitions from 05th June to 10th June among employees, workers, Family members, students & local residents on the Protection of our Environment & Conservation of Natural resources.

The theme for WED 2023 is : **"SOLLUTIONS FOR PLASTIC POLLUTION".**

Hon'ble Prime minister has launched "**Mission LIFE" (Lifestyle for Environment)** on 20th October 2022

MISSION LIFE is a Global Movement to Safeguard our Environment from the impact of Climate Change.

MISSION LIFE links the efforts of individuals towards collective actions for the Environment.

MISSION LIFE has 7 themes :

- Save Energy
- Save water
- Say No to Single use Plastics
- Reduce E- Waste
- Adopt Sustainable Food Systems
- Reduce Waste
- Adopt Healthy Lifestyles

All are requested to participate actively to Protect our Natural Environment & Healthy life. We have to take Oath for MISSION LIFE.

I pledge to make all possible changes in my daily life to protect the environment. I also commit to continuously motivate my family, friends and others about the importance of environmentally friendly habits.

मैं प्रतिज्ञा करता/करती हूँ कि पर्यावरण को बचाने के लिए अपनी दैनिक जीवन में हर संभव बदलाव लाऊंगा/लाऊंगी। मैं यह भी वचन देता/देती हूँ कि अपने परिवार, मित्रों और अन्य लोगों को पर्यावरण के अनुकूल आदतों और व्यवहारों के महत्व के विषय में सतत रूप से प्रेरित करूंगा/करूंगी।

Program Details

Date	Day	Program	Time	Venue	Participants
05.06.2023	Monday	Environment Oath & Green Rally followed by Plantation Program.	06:30 AM – 07:30 AM	Township Assembly Point: Harmony Club	Residents of Shantinikatan & Shantigram Township. After Green Rally plantation will be done.
		Plantation Program at Plant	05:30 PM – 06:30 AM	Plant Premises	By APL Staff
		Photography Competition on Natural Beauty, Thick Green Belt & Biodiversity (Photographs should be location tag with time)	-	To be submitted by mail on girishm.kulkarni@adani.com by 08.06.2023 at 05:00PM	APML Employees
		Slogan Competition	-	(Theme: #Solution to Plastic Pollution) Slogans & Drawings shall be submitted by 07.06.2023 in Environment Dept.	Contract Employees, APL Employees & Family Members, Students from nearby Villages
		Drawing Competition			
06.06.2023	Tuesday	Screening of Environment Movies	03:00 PM to 5:30 PM	Auditorium	APL Employees (Inter department Team)
		Spot Quiz Competition			
07.06.2023	Wednesday	Spot Drawing Competition	02:30 PM – 3:30 PM	Harmony Club	Students from AVT & other School (Std 01 to Std 05) and (Std. 06 to Std. 12)
		TED (Talk) Show on "#BeatPlasticPollution – our Responsibility, Our Opportunity"	03:30 PM to 5:30 PM		Family Members & Township Students (class 6 -12)
		Display of Models on Renewable Energy			Family Members
		Slogan Competition (Theme: #Solution to Plastic Pollution)	-	Slogans shall be submitted by 07.06.2023 at 05:00PM in Environment Dept.	Students from AVT & other School (Std 01 to Std 05) and (Std. 06 to Std. 12)
08.06.2023	Thursday	Awareness Session on Solution to Plastic Pollution, Ash Utilisation in Forestry, Agriculture & Other Avenues by Eminent Speakers from NEERI, TFRI & Fly Ash Cluster	03:0 PM – 6:00 PM	China Colony Hall	APML Employees, Nearby Progressive Farmer and Agriculture & Forest officer
09.06.2023	Friday	Awareness Session on Single Used Plastic	3:30 PM to 5:30 PM	Auditorium	APML Employee
		Evaluation of various competitive events	10:30 PM to 1:30 PM	Conference Hall - DM Plant	AVT & other Township Students (Std 01 to Std 05) and Students (Std. 06 to Std. 12)
10.06.2023	Saturday	Valedictory Function	4:00 PM to 6:00 PM	China Colony Hall	Prize distribution

World Environment Day -2023

Start with Taking Mission Life Pledge & Rally followed by plantation at Township

World Environment Day -2023

Start with Taking Mission Life Pledge & Rally followed by plantation at Township

World Environment Day -2023

Plantation programme at Plant

World Environment Day -2023

Env. Movie Screening & Spot Quiz for Employee at Auditorium

Interdepartmental Team – 14
Participant – 45Nos.

World Environment Day -2023

Drawings & Making of Models At Township

LiFE Lifestyle for Environment | BEAT PLASTIC POLLUTION | adani Power

WORLD ENVIRONMENT DAY

5th-10th June 2023

Awareness Session on
Plastic Pollution, Ash Utilisation in
Forestry, Agriculture & Other Avenues

Adani Power Ltd. Tirora

Eminent speakers Dr. Rajesh Beniwale from NEERI Nagpur,
Dr. Avinash Jain from TFRI Jabalpur, and Mr. Pravin Jani from Chandrapur

8th June 2023

World Environment Day -2023

Awareness Session for Employee on Single Used Plastics

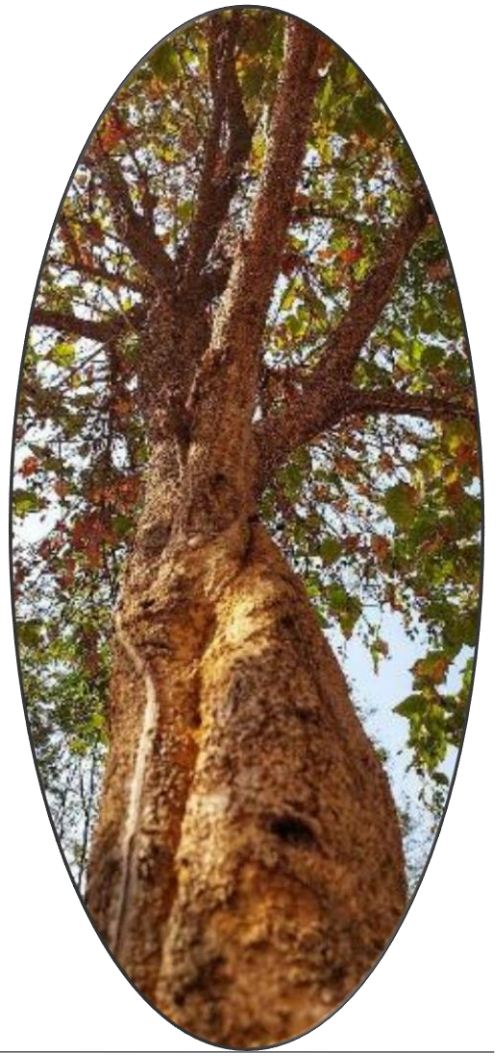
By Dr. Vijay Gandhewar, Head – Technical Training

adani

9th June 2023

World Environment Day -2023

Photography competition for Employee



adani

World Environment Day -2023
Evaluation of Various competitive program at Conference Room of DM Plant

adani

9th June 2023

World Environment Day -2023

As per the world environment day 2023 theme-solution to Plastic Pollution, we have distributed Jute Carry Bags to avoid used of Polyethene among the employees.

World Environment Day/week - Closing Ceremony

WORLD ENVIRONMENT WEEK CELEBRATION (05.06.2023 – 10.06.2023)
"Theme: Solutions to Plastic Pollution under the campaign #BeatPlasticPollution."

Date	Day	Program	Participants	Present Participants in Numbers
05.06.2023	Monday	Oath Ceremony & Green Rally followed by Plantation Program.	Residents of Shantiniketan & Shantigram Township. After Green Rally plantation will be done.	150
		Plantation Program at Plant	APML Employess	110
		Photography Competition on Nature, Green belt, Biodiversity, Birds (Photographs should be location tag with time)	APML Employees	10
		Slogan Competion (75 Participation)	Student from Near By Villages	15
			Contractor Employees	19
			APML Employees	13
			Family Members	17
			AVT Students (Std 01 to Std 05)	8
			Students (Std. 06 to Std. 12)	3
		Drawing Competion (144 Participation)	Student from Near By Villages	106
			Contractor Employees	19
			APML Employees	7
			Family Members	12
06.06.2023	Thursday	Screening of Environmenc Movies	APML Employees	45
		Spot Quiz Competetion		
07.06.2023	Wednesday	Spot Drawing Competion	AVT & Other Township Students (Std 01 to Std 05) and Students (Std. 06 to Std. 12)	73
		TED (Talk) Show on "#BeatPlasticPollution – our Responsibility, Our Opportunity"	Family Members & Township Students (class 6 -12)	14 Students & 03 Family members
		Display of Models on Renewable Energy	Family Members	02 Numbers
08.06.2023	Tuesday	Awarness Session on Use of Ash in Agriculture & Forestry Development	APML Employess, Nearby Progressive Farmer and Agriculture & Forest officer	105 Progressive Villagers & Brick plant Owners
09.06.2023	Friday	Awareness Session on Single Used Plastic	APML Employee	75
		Evaluation of various competitive events	AVT & other Township Students (Std 01 to Std 05) and Students (Std. 06 to Std. 12)	With 04 Jury Members
10.06.2023	Saturday	Valedictory Function	Prize distribution	

Total 813

813 Nos. of Active participant in different activities conducted.

World Environment Day/week – Media Clip

तरुण भारत

Parvn Vidarbha | 2023-06-14 | Page: 6

epaper.tarunbharat.net

अदानी प्रकल्पातर्फे पर्यावरण जनजागृती सप्ताह

हरित रैली निकालकर दिया पर्यावरण-रक्षा का संदेश

- विविध कार्यक्रमों के साथ मनाया पर्यावरण जनजागरण सप्ताह

ब्यूरो | गोंदिया

विश्व पर्यावरण दिवस के उपलक्ष्य में अदानी पावर प्लांट तिरोड़ा की ओर से प्लास्टिक प्रदूषण पर उपाय योजना की संकल्पना के साथ 5 से 10 जून तक विश्व पर्यावरण सप्ताह उत्साहपूर्वक मनाया गया। पर्यावरण सप्ताह का शुभारंभ अदानी पावर प्रमुख कांति विश्वास के मार्गदर्शन में हरित रैली निकालकर किया गया। इस समय हरित रैली के माध्यम से पर्यावरण संवर्धन व संरक्षण का संदेश दिया गया। पश्चात शांति ग्राम अदानी टाउनशिप में पौधारोपण किया गया। बताया गया कि अदानी ग्रुप का वर्ष 2030 तक 100 मिलियन पौधारोपण कार्यक्रम के अंतर्गत टाउनशिप के साथ ही प्लांट परिसर में 500 पौधे लगाए गए। इस सप्ताह के दौरान डॉ.राजेश बेनीवाल, डॉ.प्रवीण जानी, डॉ.अविनाश जैन ने प्लास्टिक प्रदूषण से बचने के उपाय, फ्लाय एश का उपयोग, जंगल खेती विषय पर जनजागृति पर मार्गदर्शन किया। इसका लाभ प्रकल्प के कर्मचारियों के साथ ही गांव के प्रगतिशील किसानों के साथ ग्रामपंचायत पदाधिकारियों एवं नागरिकों ने लिया। इसी तरह तिरोड़ा परिसर में विविध जनजागृति कार्यक्रम आयोजित किए गए। जिसमें प्लास्टिक प्रदूषण पर उपाय योजना विषय पर पोस्टर, स्लोगन, चित्रकला, प्रश्न मंजुषा एवं पर्यावरण विषयक स्पर्धा आयोजित की गई थी। जिसमें प्रकल्प के कर्मचारी, मजदूर एवं आसपास के गांवों के विद्यार्थियों ने बढ़चढ़कर हिस्सा लिया। सप्ताह के समापन एवं पुरस्कार वितरण समारोह में विविध स्पर्धाओं के विजेताओं को भेंट वस्तु प्रदान कर पुरस्कृत किया गया। इस समय मुख्य रूप से अदानी पावर के ऑपरेशन हेड संजय रांगनेकर, एचआर हेड संजय अरगड़े के साथ ही अदानी पावर के श्रीराम पिंपलीकर, डॉ. विजय गंधेवार, पर्यावरण विभाग प्रमुख ए.पी. सिंह, राजेंद्र मुरई, शशिकांत बोधनकर उपस्थित थे। संचालन प्रवीण शाह एवं आभार प्रदर्शन राहुल शेजव ने किया। सफलतार्थ पर्यावरण विभाग एवं अदानी फाउंडेशन के कर्मचारियों ने सहयोग किया।

विविध कार्यक्रमांनी साजरा झाला पर्यावरण जनजागृती सप्ताह

https://www.berartimes.com/vidarbha/174107/ via @berartimes

adani
Power

Ref: APLT/ENV/MPCB/ES/97/23
Date: 25.09.2023

To
The Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 2nd – 4th Floor
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (East), Mumbai – 400 022

Sub: Submission of Environment Statement 2022-23 for Adani Power Limited, Tiroda, Gondia, Maharashtra.
Ref: UAN. MPCB-ENVIRONMENT_STATEMENT-0000059268 dated 25.09.2023

Dear Sir,

With reference to above subject, we have submitted an online Environment Statement for Adani Power Limited, Tiroda, Gondia, Maharashtra for the financial year ending March 31, 2023. A copy of statement is enclosed for your reference.

We hope you will find the report in order.

Thanking You,

Yours faithfully

(Kanti Biswas)
Station Head
Adani Power Limited, Tiroda

Encl.: As Above

Copy for kind information to: -
3) The Regional Officer, MPCB RO office, Nagpur.
4) The Sub Regional Officer, MPCB SRO office, Bhandara.

Adani Power Ltd
Plot A-1, Tirora Growth Centre
MIDC Area, Tirora
Gondia 441 911
Maharashtra, India
CIN: L40100GJ1996PLC030533

Tel +91 7198 25 3961
Fax +91 7198 25 3971
www.adanipower.com

Registered Office: Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S G Highway, Khodiyar, Ahmedabad 382 421, Gujarat, India

Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2023

Unique Application Number	***Submitted Date***
MPCB-ENVIRONMENT_STATEMENT-0000059268	25-09-2023

PART A

Company Information

Company Name	***Application UAN number***	
Adani Power Limited	MPCB-CONSENT-0000142503	
Address		
plot A 1, Tirora Growth centre, MIDC Area, Tirora, Gondia		
Plot no	***Taluka***	***Village***
PLOT NO: A-1, TIRODA GROWTH CENTRE, MIDC, TIRODA	Tiroda	MIDC Tirora
Capital Investment (In lakhs)	***Scale***	***City***
1847648.00	L.S.I	Gondiya
Pincode	***Person Name***	***Designation***
	Kanti Biswas	Station Head
Telephone Number	***Fax Number***	***Email***
8875088555	07198253971	Kanti.Biswas@adani.com
Region	***Industry Category***	***Industry Type***
SRO-Bhandara	Red	R48 Thermal Power Plants
Last Environmental statement submitted online	***Consent Number***	***Consent Issue Date***
no	MPCB-CONSENT-0000142503	2022-11-10
Consent Valid Upto	***Establishment Year***	***Date of last environment statement submitted***
2023-08-31	2012	Sep 26 2022 12:00:00:000AM
Industry Category Primary (STC Code) & Secondary (STC Code)		

Product Information

Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
Fly Ash Bricks	3650000	791508	Nos./Y
Electricity Generation	3300	2579.96	Mwh

By-product Information

By Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
Ash	4815193	4638788	MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for	Consent Quantity in m3/day	Actual Quantity in m3/day
Process	26592.00	1061.00
Cooling	163728.00	142615.00
Domestic	1440.00	942.00
All others	100.00	100.00
Total	191860.00	144718.00

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade effluent	34205	22986	CMD
Domestic Effluent	192	187	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
Bricks	7.35	7.35	CMD
Thermal Power Plants	137959	144618	CMD

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
Coal	0.66	0.64	MT/MWH

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
LDO	3.11	2.5	CMD

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	%variation	Standard	Reason
Zero discharge maintained	0	0	-	-	-

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	%variation	Standard	Reason
Particulate Matter (PM)	11690	38	-	50 mg/Nm3	-
SOx	247296	806	-	-	SO2 emission norms will be applicable from Jan'27 as per MoEF&CC Notification dtd 05.09.22 for C category non-retiring plants

NOx	97427	318	-	450 mg/Nm3	-
Hg	4.86	0.0159	-	0.03 mg/Nm3	-

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used or spent oil	94.2	81.2	KL/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	478	570	Nos./Y
35.2 Spent ion exchange resin containing toxic metals	1.99	1.375	KL/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
35.3 Chemical sludge from waste water treatment	0.660	0.240	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Bottom Ash	908939	927758	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Fly Ash	3635757	3711031	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.1 Used or spent oil	81.2	KL/A	Analysis report enclosed
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	578	Nos./Y	Empty containers send to MEPL, Nagpur
35.2 Spent ion exchange resin containing toxic metals	1.375	KL/A	Waste resin send to MEPL, Nagpur
35.3 Chemical sludge from waste water treatment	0.240	MT/A	Chemical sludge from ETP send to MEPL Nagpur

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste

Domestic Bio-degradable waste	27.454	MT/A	Food & vegetable and horticulture waste used for composing
Paper generation & in-house recycling	4.85	MT/A	Stationery paper & Packing materials
Other Solid Waste	1608.39	MT/A	Plastics, metals, wood etc.
E-Waste	4.35	MT/A	CEEW5 & CEEW5
Biomedical Waste	0.0148	MT/A	Yellow, Red, White & Blue categories
Used battery	4.7810	MT/A	Lead Acid Battery

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	*Reduction in Water Consumption (M3/day)*	*Reduction in Fuel & Solvent Consumption (KL/day)*	*Reduction in Raw Material (Kg)*	*Reduction in Power Consumption (KWH)*	*Capital Investment(in Lacs)*	*Reduction in Maintenance(in Lacs)*
Various Energy conservation initiative	0	0	29501120	3782700	663	0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	*Environmental Protection Measures*	*Capital Investment (Lacks)*
Pollution Control Equipment O&M	ESP, Bag Filters, ETP upgradation etc.	733
Pollution Monitoring, Study and Analysis	Environment Monitoring Equipment's, Third Party Monitoring, Fly Ash Lechability Study and Hydrogeological Study Biodiversity Assessment	92
Green Belt Development including Nursery	Nursary Development, Sapling Plantation and Maintenance of Existing Green Belt. Also plantation in gap filling areas carried out.	272
Corporate Social Responsibility	Under CSR Activities Deeping and renovation of Ponds, Health & Sanitization, Waste Management and Skill Development	271
Legal & Consent Fees	Consent to Operate and JVS sampling done by MPCB and Hazardous Waste Management by MEPL	397
Training & Awareness	Environmental Workshop, Seminar and Training and Celebration of World Environment Day	4
Waste Management	Fly Ash Utilization and its Management, Single used plastic phase-out, BMW, Domestic Waste	9027
Establishment of Ash Utilization Research Park	For Maxmisation of Ash Utilization	271
Energy Conservation Initiatives	Implementation of Energy Efficient Technologies in Electrical and process Systems to reduce carbon foot print and climate change mitigation	663

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	*Environmental Protection Measures*	*Capital Investment (Lacks)*
Pollution Control Equipment O&M	ESP, Bag Filters, ETP etc.	786
Pollution Monitoring, Study and Analysis	Environment Monitoring Equipment's, Third Party Monitoring, Fly Ash Lechability Study and Compliance Audit etc.	277

Green Belt Development including Nursery	Nursary Development, Sapling Plantation and Maintenance of Existing Green Belt. Also plantation in gap filling areas carried out.	278
Corporate Social Responsibility	Under CSR Activities Deeping and renovation of Ponds, Health & Sanitization, Waste Management and Skill Development	185
Legal & Consent Fees	Consent to Operate and JVS sampling done by MPCB and Hazardous Waste Management by MEPL	388
Training & Awareness	Environmental Workshop, Seminar and Training and Celebration of World Environment Day	4
Waste Management	Fly Ash Utilization and its Management, Single used plastic phase-out, BMW, Domestic Waste	15000
Establishment of Ash Utilization Research Park	For Maxmisation of Ash Utilization	67
Energy Conservation Initiatives	Implementation of Energy Efficient Technologies in Electrical and process Systems to reduce carbon foot print and climate change mitigation	150

Part-I

Any other particulars for improving the quality of the environment.

Particulars

-

Name & Designation

-

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000059268

Submitted On:

25-09-2023