# adani

**Power** Ref: APML/EMD/MOEF/EC/254/11/20 Date: 27/11/2020

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, Green belt development and CSR reports for the period of **April'2020 to September'2020** in hard & soft (e-mail).

This is for your kind information & record please.

Thanking you Yours faithfully, for **Adani Power Maharashtra Limited** 

(Santosh Kumar Singh) Head- Environment

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, 5<sup>th</sup> Floor Udyog Bhawan, Civil Lines, Nagpur – 440001

#### Member Secretary, **Maharashtra Pollution Control Board** Kalpataru Point, 2<sup>nd</sup> – 4<sup>th</sup> floor, **Mumbai**–22

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### COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCES

## 3300 (5X660) MW THERMAL POWER PLANT PHASE – I & II

at

TIRORA, DISTRICT GONDIA MAHARASHTRA

Submitted to:

Regional Office (WCZ) Ministry of Environment, Forest & Climate Change Central Pollution Control Board, New Delhi & Maharashtra Pollution Control Board, Mumbai.

# adani

Submitted By:

Environment Management Department Adani Power Maharashtra Limited

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

PERIOD: APRIL'2020- SEPTEMBER'2020

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#### Introduction

Adani Power Maharashtra Ltd, (APML), a wholly owned company of Adani Power Limited has established 3300 MW (5x660) 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, Gumadhawara, Khairbodi, Chikhali, Churdi, Bhiwapur, Kachewani and Mendipur, surround the site. The power plant is based on supercritical, energy efficient & environment friendly technology.

APML 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). As a part of the compliance of statutory requirements, environmental quality monitoring is being done regularly at locations suggested by Sub- Regional Officer, MPCB, Bhandara on the basis of micrometeorological parameters. 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 third 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 -1 & 2 is furnished herewith.

#### Compliance status on Environmental Clearance (Phase I: 2x660 MW Coal based Thermal Power Plant)

Letter No.J-13011/4/2008-1A-II (T) dated 29.05.2008 and Its subsequent Amendment dated 21.03.2012

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
(ii)	Sulphur and ash content in the coal to be used in the project shall not exceed 0.5 % and 29.57 % respectively.(Amendment dt. 21.03.2012)	Being Complied. Sulphur & ash contents are below 0.5 % and 29.57 % respectively.
(iii)	A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipment's for SOx, NOx 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 <sub>2</sub> , NOx & PM. Exit velocity of flue gas is more than 22m/sec.
(iv)	High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	Highly efficient Electrostatic Precipitators with efficiency of 99.93 % have been installed for each boiler (ESPs) to meet particulate emission less than 50 mg/Nm3. Monitoring report is enclosed as <b>Annexure I</b>
(v)	Space provision shall be kept for retrofitting of FGD, if required at a later date.	Space have been provided for FGD installation in the plant layout. APML is under process to install FDG
(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 (Cyclone followed by bag filters) in coal crusher and coal 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 <sup>th</sup> 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.	Fly ash silos (06) established to collect dry ash for further utilization. Unutilized ash is being disposed off in the ash pond in lean slurry mode & High Concentration Slurry Disposal mode with recirculation of ash water. APML is India's first ever dispatch of conditioned ash in BOXN (open) wagons and has successfully demonstrated usage of Bottom ash in manufacturing of Red Bricks. APML has also done the highest ever dispatch in one day which was more than 12,000 MT of Fly Ash through Rack.
(viii)	Ash pond shall be lined with HDPE lining.	Well design ash dyke with LDPE lining has

(ix)	Adequate safety measures shall also be 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. Water requirement shall not exceed 36 MCM/year. No ground water shall be extracted for this power project including during construction phase.	been established as per the guidelines of MoEF&CC, CEA & CPCB. Adequate safety measures are being taken for any unforeseen incidents. Guard drains & guard pond established. This quantity is adequate to meet the plant's requirement. Monthly water consumption report is being submitted regularly to MPCB, Mumbai. Water allocation from Wainganga River for 70
		MCM for both phases,
(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.	Complied. COC of 5.5 is being maintained.
(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 in the ETP and STP. Treated water is being reused within the plant. The concept of "Zero Discharge Condition" 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.	Sewage Treatment Plants have been installed & treated water reused suitably within the plant premises for 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.	Rain Water Harvesting study carried out & report submitted to Regional Director, Central Ground Water Board, Nagpur & Member Secretary- Central Ground Water Authority, New Delhi. Rainwater harvesting within the project has been constructed/ implemented to store the rain water.
(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 team with adequate safety measures is available in the plant site to take preventive control measures. Fire hydrant and rain gun type water sprinklers established in the coal yard. Copy of control measures and location plant layout has 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 made in the Disaster management Plan for the same. Mock drills shall be conducted regularly as plan.	The fuel LDO properly stored in minimum risk area & as per the norms storage location approved by the Chief Controller of Explosive. Disaster management plan and On-site emergency plan prepared & Mock drills are being conducted periodically.

	Necessary clearance as may be applicable to such storage under HSM Rules shall be	
(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	Regular monitoring of ground water carried out around ash pond area. Monitoring results are being submitted to Regional Officer, MoEF and MPCB regularly. Please refer <b>Annexure</b> –
(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.	I. Green belt development/ plantations are being carried out on available land. Our efforts are being made to develop more greenery in and around plant premises. We have already established our nursery to develop saplings for afforestation & horticultural activities. Besides this, we have also developed lawn & gardens to create aesthetic view inside the plant premises. APML have developed green belt/plantation in 258 ha land which is more than the norms of
(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	<ul> <li>33% of total land area. Green belt/plantation details is enclosed as Annexure - VI.</li> <li>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.</li> </ul>
(xix)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid and sanitation facility provided for the drivers and contract workers during 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 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 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 the Board. A complete medical checkup with audiometric test of workers & employees are being carried out as per frequency. Please refer <b>Annexure –I</b> <b>&amp; IA</b>
(xxi)	Regular monitoring of ground level concentration of SO <sub>2</sub> , NOx, SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of	Regular monitoring of PM10, PM2.5, SO2 & NOx are being carried out as per frequency & monitoring results are well within the norm. Monitoring results are being submitted to MPCB monthly. Ambient Air Quality monitoring stations established in consultation with Sub- Regional Officer, MPCB. Please refer <b>Annexure –I &amp; IA</b>

		I
	monitoring shall be decided in consultation	
	with SPCB. Periodic reports (six monthly) shall	
	be submitted to the Regional Office of this	
	Ministry.	
(xxii)	The project proponent shall advertise in at	Complied.
	least two local newspapers widely circulated in	Copy of the same already submitted to your
	the region around the project, one of which	good office.
	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	
	Forosts at http://opyfor.pic.ip	
(maiii)	A seesste seuissement messement cell with	Ma have already established Favisagment
	A separate environment management cen with	We have alleady established Environment
	qualified stall shall be set up for	Management Dept. neaded by AGM &
	Implementation of the stipulated	Supported by Environmental Engineers,
	environmental safeguards.	Chemist & Horticulturist. Environmental
		laboratory has been established to monitor
		Environmental Quality Parameters for
		Ambient Air, Water, Stack emission monitoring
		etc.
		Environmental Management System as per
		EMS ISO 14001:2015 implemented under
		Integrated Management System. Our
		Environmental lab is Accredited with NABL as
		per ISO/IEC 17025:2017 which is valid up to
		27.06.2021.
(xxiv)	Half yearly report on the status of	Six monthly compliance report is regularly
	implementation of the stipulated conditions	being submitted to MoEF, CPCB & MPCB.
	and environmental safeguards shall be	The same is sent by email also.
	submitted to this Ministry/Regional	Compliance report for the period of October
	Office/CPCB/SPCB.	'19 to March '2020 has been submitted vide
		our letter no. APML/EMD/MoEF/EC/235/05/20
		dated 28.05.2020.
(xxv)	Regional Office of the Ministry of Environment	Being Complied.
	& Forests located at Bhopal will monitor the	The EIA & EMP report with additional
	implementation of the stipulated conditions. A	information is already submitted.
	complete set of documents including	Six monthly updated compliance report is
	Environmental Impact Assessment Report and	being submitted on regularly basis
	Environment Management Plan along with the	Compliance status report is also unloaded on
	additional information submitted from time to	https://parivesh.pic.in/
	time shall be forwarded to the Deciseral Office	
	for their use during monitoring.	

(xxvi)	Separate funds shall be allocated for	Sepa	arate fund has been alrea	dy allocated for
	implementation of environmental protection	envi	ronmental protection.	
	measures along with item-wise break-up.	Expe	enditure details in F.Y 19 –	20 (in Lakhs):
	These cost shall be included as part of the	SL.	Particulars	Cost (in Lac )
	project cost. The funds earmarked for the	No	Farciculars	003t (iii E80.)
	environment protection measures shall not be	1	Pollution control	2397.33
	diverted for other purposes and year-wise	•	equipment O &M	2337.33
	expenditure should be reported to the Ministry.	2	Pollution Monitoring, Study and analysis	96.81
		3	Green belt Development	303.82
		4	Rural Development/CSR	406.09
		5	Legal & consent fees	381.89
		6	Training & Awareness	1.77
		7	Waste Management	3495.69
			Total	7083.41
(xxvii)	The project authorities shall inform the	Com	iplied.	
	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			
	Evel opposition shall be extended to the		N bac always extend full	
	Scientists/Officers from the Ministry / Regional	the	Scientists/Officers from	the Ministry /
	Office of the Ministry at Bhonal /the CPCB/the	Reni	ional Office of the Minis	try at Bhonal /
	SPCB who would be monitoring the	CPC	B/ MPCB etc.	
	compliance of environmental status.			
(xxix)	The project proponent shall upload the status	Six	monthly Environmen	tal Clearance
	of compliance of the conditions stipulated in	com	pliance status report	is regularly
	the environmental clearance issued vide this	subr	mitted to MoEF, CPCB a	nd SPCB. The
	Ministry's letter of even no. dated 30.03.2007,	sam	e is sent by email also.	
	in its website and uploaded periodically and	Com	pliance status updated	on Company's
	also simultaneously send the same by e-mail to	web	site. <u>www.adanipower.com</u>	נ
	the Regional Office of the Ministry of			
(	Environment and Forests.	Osita		
(XXX)	Uniteria poliutant levels including NOX, RSPM,	Crite	eria poliutant viz. NOX, PM	IU PINIZ.5 & SUX
	(FINIL & FIN2.3), SUX (HUIII SEACK & AMDIENE aid) shall be regularly monitored and regults		TI SLOUK & AMDIENC A	hij die being
	displayed in your website and also at the main	dien	linuous momente dhu	
	gate of the power plant.	ush	idyed at the main gate of t	יופ אסאפו אוסווני

#### Compliance Status of Environmental Clearance

(Phase- II (3x660) MW THERMAL POWER PLANT)

#### Letter No.J-13012/81/2008-1A-II (T) DATED 22.04.2010) & its subsequent Amendment dated 30.03.2012 and dated 13.03.2014

SL. NO.	CONDITIONS	COMPLIANCE
(i)	Only one unit of 1 x 660 MW shall be run on 100% domestic coal for which coal linkage from SECL is available and the other two units of 2 x 660 MW shall be run purely on imported coal, as per details in Para 2.	MoEF 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.	EC is amended and the source of coal is domestic. Separate stacking/storage arrangement is not required.
(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.	APML requested the MoEF&CC for Change of source of coal to indigenous Coal from subsidiary companies of "Coal India Limited" in place of imported coal. The EAC of MoEF&CC considered our proposal on October 10, 2013 & January 9-10, 2014 respectively and subsequently the Environmental Clearance condition amended for change of coal source from imported to domestic/indigenous on 13/03/2014.
Α	Water & Waste Water 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 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.
(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	Noted. There is no water body within the plant site.
(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.	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	NEERI (CSIR), Nagpur has been engaged for carrying out Hydro-geological study & review from 2019 – 2022. The 1 <sup>st</sup> year interim report submitted to your good office along with Six Monthly compliance report for the period of April to Sept' 2019. Quality of ground water is being monitored in and around the plant premises. Ground water level in nearby villages is also being monitored to know the seasonal fluctuations.
(viii)	Closed cycle cooling system with induced draft cooling towers shall be provided and COC of at least 5.5 shall be adopted.	5.5 COC is being maintained.

(ix)	The treated effluent confirming to the prescribed standards only shall be re- 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.	Effluent treatment plant installed within the plant and treated water is being utilize/reuse within the premises to meet "Zero Discharge". Separate drainage system established for 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.	Sewage Treatment Plants have been installed and treated water is being suitably reused within the plant premises 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. Rain water harvesting practices adopted within the plant area.
(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.	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 maintained and the same are submitted to Regional office of the Ministry at Bhopal. Please Refer <b>Annexure – I.</b>
В	Air Pollution Control	
(xiv)	Provision for installation of FGD shall be provided.	Space & provision available for FGD installation. APML is under process to install FDG as per the direction and guidance of CPCB & CEA
(xv)	High Efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg / Nm3.	ESP with efficiency of 99.93% (ESPs of 10 fields) installed for each boiler to meet permissible norm for particulate emission of less than 50 mg / Nm3. Please refer <b>Annexure – III.</b>
(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.	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 3 tiers 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%.	Green belt development/ plantations are being carried out on available land. Our efforts are being made to develop more greenery in and around plant premises. We have already established our nursery to develop saplings for afforestation & horticultural activities. Besides this, we have also developed lawn & gardens to create aesthetic view inside the plant premises APML have developed green belt/plantation in

		258 ha land which is more than 33%. Please refer <b>Annexure – VI.</b>
(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 has 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. The monitoring reports regularly submitted to the MPCB & MoEF. Please refer Annexure – I & IA
С	Fly Ash Management	
(xix)	Utilization of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Annual ash generation and utilization status is regularly submitted to MoEF&CC, MPCB & CEA. Six Monthly Ash Generation & Utilization details from April'20 to Sept'20 enclosed as <b>Annexure –</b> <b>IV.</b>
(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.	Compliance assured. We have established 06 Nos. silos of 1700 ton capacity each for utilization of dry ash. Regular monitoring of heavy metals is being carried out.
(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.	Compliance assured. Well-designed Ash dyke with HDPE lining have been established as per guidelines of MoEF, CEA and CPCB. Regular monitoring is being carried out.
(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.	Noted. We will inform to Maharashtra Pollution Control Board well in advance.
(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 <b>Annexure – I</b> . APML has engaged CSIR – NEERI, Nagpur to carry out Fly Ash Leachability Study in Radius of 35 KM for APML, Tiroda from 2019 – 2022. The 1 <sup>st</sup> year interim report submitted to your good office along with Six Monthly EC compliance report for

	the period of April' 2019 to Sept' 2019.		
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 established in the coal yard. Details of control measures and location within the plant layout has been already 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.	The Fuel LDO is properly stored in minimum risk area & as per the norms fixed by the Chief Controller of Explosive. Disaster management plan and On-site emergency plan prepared & Mock drills are being conducted periodically.	
E			
(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.	R&R plan approved by the State govt. and implemented. APML had engaged Indian Institute of Social Welfare & Business Management (IISWBM), Kolkata for carrying out R&R audit for APML, Tiroda.	
(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.	A separate budget earmarked for CSR activities. Need Base Assessment study carried out and report already submitted to the ministry. We have established well qualified team with village mobilizers to take care of CSR activities. Six Monthly CSR Progress Report with expenditure for period of April'2020 to September'2020 is enclosed as <b>Annexure – VII.</b>	
(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	Need Base Assessment Study for development of CSR plan prepared and report already submitted to MoEFCC. Need based plan implementation being done in nearby village for the 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 for skill development of SC/ST and marginalized populations from Gondia and Bhandara district. APML have trained 749 students in which 626 trainee obtained good job offers. It also includes nurse training (General Duty Assistance) of 105 and out of this 88 placed for good job. Year wise training and placement details are annexed as <b>Annexure XI</b>	

r	as maile and of implementation. The selection	
	commitment of implementation. The scheme	
	snall nave an in - built monitoring	
<b>F</b>		Compliant
	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 Natural drainage has not disturbed due to plant activities.
(xxx)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied. First Aid and sanitation facilities were provided for the drivers and contract workers during 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 for construction phase only.
(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 and Forests at <u>http://envfor.nic.in</u> .	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 while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied. Copy of Environmental Clearance and other required documents provided to Zila Parishad & Gram Panchayat.
(xxxiv)	A separate environment management cell with qualified staff shall be setup for implementation of the stipulated safeguards.	APML has established Environment Management Dept. which is headed by AGM & supported by Env. Engineer, Chemist & Horticulturist. Environmental laboratory has been established to monitor Environmental Quality Parameters for Ambient Air, Water, Stack emission monitoring etc. Environmental Management System as per EMS ISO 14001:2015 implemented under Integrated Management System. Our Environmental lab is Accredited with NABL as per ISO/IEC 17025:2017 which is valid up to 27.06.2021 The desktop surveillance audit has been

		successfully completed and the accreditation is being continue for the laboratory. Please refer Annexure – X
(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.	Six monthly Environmental Clearance compliance status report is regularly submitted to MoEF&CC, CPCB and SPCB. The same is sent by email also. Compliance status updated on Company's website. Display board already installed in main gate.
(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	Six monthly compliance report is regularly submitted to MoEF, CPCB & MPCB. The same is sent by email also. Compliance report for the period of October '19 to March '2020 has been submitted to MoEF&CC/MPCB/CPCB vide our letter no. APML/ EMD/MoEF/EC/235/05/20 on 28.05.2020
(xxxvii)	The environment statement for each financial year ending 31 <sup>st</sup> 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	Environment Statement for F.Y 19- 20 submitted with online portal of Maharashtra Pollution Control Board. Copy enclosed as <b>Annexure – VIII.</b>
(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 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.	Six monthly Environmental Clearance compliance status report is regularly submitted to MoEF, CPCB and SPCB. The same is sent by email also. Compliance status updated on Company's website. <u>www.adanipower.com</u>
(xxxix)	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	Being Complied. Six monthly Environmental Clearance compliance status report is regularly submitted to MoEF&CC, CPCB and SPCB. The same is sent by email also. Compliance status updated on Company's website. Display board already installed in main gate.

(xi)	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. 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	Separate func being utilize measures. <b>Expenditure d</b>	d has already beer for Environmer <b>etails in F.Y 19 – 20</b>	n allocated and htal Protection <b>) (in Lakhs)</b> :
	project cost. The funds earmarked for the	SL.	Particulars	Cost (in Lac.)
	be diverted for other purposes and year-wise	No 1 Pollutio	on control	2397.33
	Ministry	2 Pollutio	on Monitoring and analysis	96.81
		3 Green t	belt Development	303.82
		4 Rural D	evelopment/CSR	406.09
		5 Legal 8	consent fees	381.89
		6 Trainin	g & Awareness	1.77
		7 Waste	Management	3495.69
			Total	7083.41
(xii) (xiii)	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 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.	Noted. Full cooperatio	on always extended.	
Addition	al Conditions (EC Amendment)			
(xiv)	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.	<ul> <li>Compliance Assured.</li> <li>At present, coal is being transported by raise through wagons and unloaded within our plan</li> <li>premises at wagon tippler &amp; Track Hopers.</li> </ul>		sported by rail vithin our plant Hopers.
(xv)	Avenue plantation of 2/3 rows all along the road shall be carried out by the project proponent at its own expense.	_ayer wise thi boundary.	ck Plantation done	in all around the
(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 ro and being main	ads are black topp ntained	ed or concreted
(XVII)	coal to be used in the project shall not	Being complie <u>Ne are usi</u> ng v	a. washed coal from SI	ECL and blended

	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.	with raw coal. We have also installed Real time Coal Ash Analyzers to monitor ash content. MPCB official also collect coal samples time to time and analysis results are well within the stipulated limit. Quarterly Ash content report is being sent to MoEFCC regional office, Six monthly Average ash content is 32.89%
(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. Monitoring reports is already submitted along with compliance report.
(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.	10KW solar panel installed at the top of administrative building to cater domestic power requirement of administrative building. In addition to above, solar street lights are 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 <b>Annexure – I.</b>
(I)	Fugitive emission shall be controlled to prevent impact on agricultural or non- agricultural land.	Being Complied. 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 made in wagon tripplers 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 transfer 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 requirement during lean season. The report shall be submitted to the Regional Office of the Ministry within six months.	VIDC has developed and is operating Dhapewada Barrage on River Wainganga for water supply. However, we have undergone source sustainability study of River Wainganga through "Academy of Water Technology and Environ Management" Kolkata in Technical collaboration with Indian Institute of Social Welfare and Business Management- Kolkata and CSIR-CGCRI - Kolkata. Final Report was already submitted along with compliance report.
(lii)	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	As per Fly ash Notification 25 <sup>th</sup> January, 2016; Ash may be utilize in Agriculture as a promotional activity. For the same APML has engaged AMPRI (A division of CSIR) Bhopal & NEERI, Nagpur to explore the possibility of Ash utilization in

	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.	different purpose to comply Fly Ash Notification. CSIR – NEERI Nagpur was engaged for 03 years (2019 – 2022) to carry out Fly Ash Leachability Study in an around land reclamation through fly ash of a radius of 35 KM from APML. The 1 <sup>st</sup> year inception report already submitted with EC Compliance report of October 2019 to March 2020
(110)	around Ash Pond over and above the Green Belt around the Plant Boundary.	progress. Plantation is also being done in the available open area along the plant boundary.
(Iv)	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 for the CSR Scheme has been carried out by Indian Institute of Social Welfare & Business Management, <b>University of Kolkata</b> . The same has already been submitted to your good office with Oct'14 to Mar'15 compliance report. Further, Social Audit being carried out Indian Institute of Social Welfare & Business Management, <b>University of Kolkata</b> . Final Report is already submitted to your good office with compliance report April 2019 to Sept 2019.
(Ivi)	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.	We have already established Environment Management Dept. headed by AGM & supported by Env. Engineer, Chemist & Horticulturist. Environmental laboratory <b>(NABL Accredited)</b> has been established to monitor Environmental Quality Parameters for Ambient Air, Water, Stack emission monitoring etc. Environmental Management System as per EMS ISO 14001:2015 implemented under Integrated Management System. Our Environmental Lab has also has been accredited with NABL.
(Ivii)	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 regular basis and records maintained. Please refer <b>Annexure - I</b>
(Iviii)	The environmental statement for each financial year ending 31 <sup>st</sup> 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 is being submitted regularly to MPCB. Last Environmental Statement submitted to MPCB through online portal.
(lix)	The project proponent shall formulate a well	We have implemented ISO 14001:2015 under

	laid Corporate Environment Policy and	Integrated Management System consist of
i	identify and designate responsible officers	Environment, Health & Safety, Quality and Energy
ä	at all levels of its hierarchy stipulated in this	Management Systems. We have formulated a
	clearance letter and other applicable	Corporate policy as per the requirement of
6	environment laws and regulations.	Integrated Management System (IMS),
		Biodiversity Conservation Policy has already been
		framed and incorporated in existing IMS policy.
		We APML are also a part of Indian Biodiversity
		Business Initiative (IBBI) as initiated by MoEF&CC.
		Integration of International Finance Corporation
		(IFC) Performance Standard with IMS is under
		progress.

## SIX MONTHLY ENVIRONMENTAL MONITORING REPORT

Annexure- I

## FOR The Period of Apr.2020-Sept. 2020

of

## ADANI POWER MAHARASHTRA LTD. Tirora, Growth Center, MIDC, Gondia – 441 911

**Prepared by** 



Recognised by MoEF (GOI). F. No. Q-15018/19/2019-CPW dated. 9.6.2020 NABET Accredited and ISO 9001: 2000Certified Organisation

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NABET Accredited & MoEF (Govt. of India) approved CIN No. : U28900MH1995PTC093129

**ENVIRO** ANALYSTS & ENGINEERS PVT. I

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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 Maharashtra 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 Maharashtra 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.2020-Sept. 2020 as a compliance to the statutory requirements.

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

For ENVIRO ANALYSTS & ENGINEERS PVT. LTD.

Authorized Signatory

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#### 1.0 INTRODUCTION.

**M/s. Adani Power Maharashtra Limited (APML)** a wholly owned company of Adani Power Limited has established 3300 MW (5x660) 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

#### 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 Maharashtra limited, Tirora.

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

The present report incorporates data of various Environmental parameters for APR.2020- SEPT. 2020

## 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**.

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

#### Table 2.1 Ambient Air Quality Monitoring Location



#### 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.

#### Adani Power Maharashtra Limited Six Monthly Environmental Monitoring Reports

#### TABLE-2.2 WATER SAMPLING LOCATIONS

Surface	water		<b></b>	<b>a</b>	
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	W4Chikhali Hand Pump2.0S				
Waste W	/ater				
WW1	Cooling Tower Blow Down water Un	it-1		In Plant	
WW2	Cooling Tower Blow Down water Un	it-2		In Plant	
WW3	W3 Cooling Tower Blow Down water Unit-3				
WW4	4 Cooling Tower Blow Down water Unit-4			In Plant	
WW5	Cooling Tower Blow Down water Unit-5			In Plant	
WW6	V6 Boiler Blow down Water Unit-2				
Piezome	tric 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 APML for the period of APR.2020- SEPT. 2020. Location details are given in **Table-2.3**. and as depicted in **Figure.2.1** 

Code	Location	Location type	Remarks
NL- 1		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	Inside the plant	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 location around the plant zone on the seasonal basis for the period of Apr.2020-Sept. 2020 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.2020-Sept-2020

Code	Location	Location type	Remarks
<b>S</b> 1		Garada Village	Agricultural Field
S2	Buffer Zone	Mendipur Village	Agricultural Field
<b>S</b> 3		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 APML Laboratories at site

Also Continuous Ambient Air Monitoring station installed (CAAQMS) at APML 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 APML.

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 APML.

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<sub>2</sub>, NO<sub>2</sub> 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 APML.

#### 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 APML.

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<sub>2</sub>, and Nitrogen Dioxide NO<sub>2</sub> in APML

#### 2.5.2.3 Stack Monitoring

Stack emission were analyzed with the help of stack Kit (ECOTECH Stack Kit & Prob set, quarterly basis at Boiler Stack situated in plant. 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<sub>2</sub>, NO<sub>2</sub>, 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<sub>2</sub> and NO<sub>2</sub>, 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 APML 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** 

Sr. No.	Parameter	Technique	Technical protocol	Minimum detectable limit (µg/m <sup>3</sup> )
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

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

## Chapter – 3

# DATA ANALYSIS

#### 3.0 DATA ANALYSIS

Environmental monitoring for the period of APR.2020- SEPT. 2020 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 APML on hourly basis for wind speed, Wind direction, temperature and relative humidity continuously. Total Rain fall on monthly basis during the period of APR.2020-SEPT. 2020 was measured and recorded and reported in the Environmental report.

#### Wind Pattern for the period APR.2020- SEPT. 2020.

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

Month	Temperature ( <sup>0</sup> C)		Relative Humidity (%)		Rainfall (mm)
	Max	Min	Max	Min	(Total)
April 2020	40.1	20.6	75.9	27.9	12.6
May 2020	46.9	23.4	63.8	20.2	11.2
Jun. 2020	38.4	25.3	63.2	22.7	233.6
July 2020	38.5	24.3	97.7	24.4	236.7
Aug. 2020	37.2	22.8	99.8	58.8	557.7
Sept. 2020	38.0	25.3	97.4	51.1	48.9

#### (for the period of APR.2020- SEPT. 2020)

#### Temperature

The Temperature for the month of APR.2020- SEPT. 2020 was found to be within range of  $20.6^{\circ}C - 46.9^{\circ}C$ .

#### **Relative Humidity**

The average relative humidity for the month of APR.2020- SEPT. 2020 was found to be within range of 20.2-99.8%.

#### Rain Fall

Total Rain fall found the period of APR.2020- SEPT. 2020 was 1100.7mm

#### Wind Speed/Direction

The wind speed and direction data collected during the period of APR.2020- SEPT. 2020. The wind roses plot using the collected data for APR.2020- SEPT. 2020 is given in **Figure-3.1** 

The first predominant wind direction during APR.2020- SEPT. 2020 was WSW. The calm condition ranges from 2.5 to 9.7%.


FIGURE-3.1 SITE SPECIFIC WINDROSE FOR APR. 2020- SEPT. 2020

### 3.2 Ambient Air Quality

Ambient air quality has been carried out within plant for the period of APR.2020- SEPT. 2020.  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_2 \& NO_2$ , sampling at all the locations is done for 24 hours average twice a week by APML. 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.2020- SEPT. 2020 are presented in detail in **Table 3.2** for Inside plant area. 98<sup>th</sup> 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.2020- SEPT. 2020 in the plant area location for Particulate Matter-PM<sub>10</sub> were recorded as 19.4  $\mu$ g/m<sup>3</sup> and 96.8  $\mu$ g/m<sup>3</sup> respectively. The minimum concentration was recorded at Near AWRS (A1) and maximum concentration at Near China colony (A3).

### Particulate Matter-PM<sub>2.5</sub>

The minimum and maximum concentrations in the plant area location for  $PM_{2.5}$  were recorded as  $10.6\mu g/m^3$  and  $42.2 \ \mu g/m^3$  respectively. The minimum concentration was recorded at Near AWRS (A1) & Near Brick Plant (A2) and maximum concentration was recorded at Near Chaina Colony (A3).

#### Sulphur Dioxide (SO<sub>2</sub>)

The minimum and maximum  $SO_2$  concentrations in the plant area location were recorded as 5.1  $\mu$ g/m<sup>3</sup> and 15.7  $\mu$ g/m<sup>3</sup> respectively. The minimum concentration was recorded at Near AWRS (A1) & Near Brick Plant (A2) and maximum concentration was recorded at Near Chaina Colony(A3) respectively.

#### Nitrogen Dioxide (NO<sub>2</sub>)

The minimum and maximum NO<sub>2</sub> concentrations in the plant area location were recorded as 9.6  $\mu$ g/m<sup>3</sup> and 32.5  $\mu$ g/m<sup>3</sup> respectively. The minimum concentration was recorded at Near AWRS (A1) and maximum concentration was recorded at Near Chaina Colony(A3) respectively.

#### TABLE- 3.2 SUMMARY OF AMBIENT AIR QUALITY RESULT

#### (Inside Plant Premises)

												All	value	s are µ	ıg/m3	
Location		PM <sub>10</sub>			PM <sub>2.5</sub> SO <sub>2</sub>				N	NO <sub>2</sub>						
	Min	Max	Avg	98% tile	Min	Max	Avg	98% tile	Min	Max	Avg.	98% tile	Min	Max	Avg.	98% tile
Near AWRS	19.4	92.6	56.8	90.2	10.6	39.2	24.0	38.7	5.1	14.7	9.6	14.5	9.6	30.1	18.4	30.1
Near Brick Plant	22.9	81.8	53.4	79.3	10.6	37.2	21.0	34.8	5.1	12.9	8.6	12.7	10.2	27.1	15.4	24.1
Near Chaina colony	22.2	96.8	58.8	95.0	11.2	42.2	24.0	41.8	5.9	15.7	10.3	15.5	10.8	32.5	19.2	31.9
MPCB Limit	i <u> </u>	1(	)0			6	0			8	60		· · · ·	8	<i>.</i> 0	

#### for the period of Apr 2020- Sept. 2020









#### 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<sub>2</sub>, NO<sub>x</sub>, 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.2020- SEPT. 2020 are presented in detail for various parameters like Flue gas, Velocity, Temperature, Volume & Qty, SPM, SO<sub>2</sub>, 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

		,			CONCEN		NT			
PARAMETERS					CUNCEN		N			
	U	nit I	Unit 2		Unit 3		Uni	it 4	Ur	nit 5
Date of Sampling	May2020	Sept. 2020								
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)	126	122	123	120	127	124	128	121	123	
Velocity of exit gas (m/sec)	23.40	22.87	22.95	23.55	23.60	23.80	23.91	23.17	23.10	
Flow of exit gas at stack temp. & Press.( m3/hr)	3621191.18	3539172.75	3551552.89	3644403.95	3652141.54	3683091.89	3700114.58	3585598.28	3574765.65	
Flow of exit gas at NTP(Nm3/hr)	2283205.54	2536556.47	2254360.14	2625269.10	2297602.82	2626406.33	2444865.07	2576352.47	2269094.52	
PM (mg/Nm3)	47.2	42.2	44.3	46.2	48.2	44.8	42.7	43.3	41.7	
Total dust emission (kg/hr)	107.77	107.04	99.87	121.29	110.74	117.66	104.39	111.56	94.62	Unit under shutdown
SO2 (mg/Nm3)	958.8	971.6	986.2	923.1	945.4	922.3	951.7	944.6	991.2	
SO2 (kg/hr)	2189.14	2464.52	2223.25	2423.38	2172.15	2422.33	2326.78	2433.62	2249.13	
SO2 (TPD)	52.54	59.14	53.36	58.16	52.13	58.13	55.84	58.40	53.98	
NOx (mg/Nm3)	290.5	291.6	290.7	288.2	280.6	260.2	292.2	281.3	288.2	
Mercury (mg/Nm3)	0.0190	0.0193	0.0184	0.0173	0.0204	0.0190	0.0196	0.0176	0.0202	

#### TABLE- 3.3 Stack Analysis Report for the period of Apr. 2020 - Sept.-2020

**Power Plant** (Unit-I to Unit 5)

Note: Values of PM, SO2 and NOx based on 6% O2

#### 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.2020- SEPT. 2020, 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 7.35 to 8.05 the maximum ph observed at Chikhali village(GW4) 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 194 to 394 mg/l. The maximum hardness 394 mg/l was recorded at Garada Village (GW3) and the minimum hardness of 194 mg/l was recorded at Mendipur village(GW2). which is well within the specified standard of 200(600) mg/l.

Chlorides were found to be in the range of 21.6 mg/l to 169mg/l, the maximum concentration of chlorides was observed at Kachewani Village (GW1) and the minimum concentration of chlorides was observed at Chikhali Village(GW4)

Sulphates were found to be in the range of 13.2 mg/l to 114.2 mg/l. The maximum value observed at Kachewani Village (GW1) and the minimum value observed at Medipur Village(GW2).

The values of Chlorides and sulphates 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 7.8 to 8.25the minimum and maximum value was observed at Medipur Pond and Wainganga River water respectively which is well within the specified standard of 6.5 to 8.5.

TDS was observed in the range of 104 mg/l to 642 mg/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 8.7 to 31.4 mg/l and 5.8 to 23.7 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. 2020- Sept 2020 are given in **Table-3.6** 

#### 3.4.4 Pizo-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 pizometric water quality collected on quarterly basis for the period of APR. 2020- SEPT. 2020 are given in **Table-3.7** 

#### 3.5 Noise Level:

Noise level was measured by APML in basic units of dB(A) at eleven location 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. 2020- SEPT. 2020 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.		<b>T</b> T •4	A IG 10500 2012	Res	sults
No.	Test Parameters	Unit	As per 1S 10500 : 2012	May2020	Sept. 2020
1	Apparent Colour	Hazen units	5 (15)	1.5	2.5
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	-	-
4	Turbidity NTU	NTU	1(5)	1.0	1.5
5	Total Dissolved Solid	mg / 1	500 (2000)	230	104
6	Electrical Conductivity	µS/cm	-	374	168
7	Total Alkalinity	mg / 1	200 (600)	126	62
8	pH Value at 25°C	-	6.5 to 8.5	7.90	8.25
9	Total Hardness (CaCO3)	mg / 1	200 (600)	142	52
10	Calcium (as Ca)	mg / 1	75 (200)	38.2	18.8
11	Magnesium (as Mg)	mg / 1	30 (100)	11.3	1.2
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	< 0.07	< 0.07
14	Manganese as (Mn)	mg / 1	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / 1	250(1000)	15.1	8.7
16	Sulphate (as SO4)	mg / 1	200 (400)	11.6	5.8
17	Nitrates (as NO3)	mg / 1	45	2.65	2.20
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.50	0.25
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.30	0.15
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	0.2 (1.0)	Nil	Nil
30	Total Coliform	MPN/100 ml	Absent	>16	>16
31	E. Coli	Nos./100 ml	Absent	>16	>16

#### SW2: Mendipur Pond Water

Sr.	Test Parameters	Unit	As por IS 10500 · 2012	Res	sults
No.		Omt	As per 15 10500 . 2012	May 2020	Sept. 2020
1	Apparent Colour	Hazen units	5 (15)	2.5	2.0
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	-	-
4	Turbidity NTU	NTU	1(5)	1.5	1.2
5	Total Dissolved Solid	mg / 1	500 (2000)	362	110
6	Electrical Conductivity	µS/cm	-	591	180
7	Total Alkalinity	mg / l	200 (600)	174	102
8	<b>pH Value</b> at 25°C	-	6.5 to 8.5	7.8	8.15
9	Total Hardness (CaCO3)	mg / 1	200 (600)	158	64
10	Calcium (as Ca)	mg / l	75 (200)	43.2	19.2
11	Magnesium (as Mg)	mg / l	30 (100)	12.1	3.9
12	Copper as(Cu)	mg / l	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / l	0.3	0.090	0.070
14	Manganese as (Mn)	mg / l	0.1(0.3)	0.011	0.008
15	Chlorides (as Cl)	mg / 1	250(1000)	17.3	9.2
16	Sulphate (as SO4)	mg / 1	200 (400)	13.0	7.0
17	Nitrates (as NO3)	mg / 1	45	3.20	2.40
18	Fluoride (as F)	mg / l	1.0 (1.5)	0.55	0.30
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / l	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / l	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.31	0.10
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	0.2 (1.0)	Nil	Nil
30	Total Coliform	MPN/100 ml	Absent	> 16	> 16
31	E. Coli	Nos./100 ml	Absent	>16	> 16

#### SW3: Garada Village Nalah water

Sr.	Test Parameters	Unit	As por IS 10500 - 2012	Res	sults
No.		Unit	As per 15 10500 : 2012	May2020	Sept. 2020
1	Apparent Colour	Hazen units	5 (15)	2.0	2.0
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)	642	252
6	Electrical Conductivity	µS/cm	-	1040	412
7	Total Alkalinity	mg / l	200 (600)	210	146
8	pH Value at 25°C	-	6.5 to 8.5	8.20	8.00
9	Total Hardness (CaCO3)	mg / l	200 (600)	290	148
10	Calcium (as Ca)	mg / l	75 (200)	71.2	38.2
11	Magnesium (as Mg)	mg / 1	30 (100)	27.2	12.8
12	Copper as(Cu)	mg / l	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / l	0.3	0.10	0.075
14	Manganese as (Mn)	mg / l	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / l	250(1000)	31.4	14.1
16	Sulphate (as SO4)	mg / l	200 (400)	23.7	10.6
17	Nitrates (as NO3)	mg / l	45	4.10	2.85
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.60	0.30
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 / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	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 / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.41	0.26
27	Total Chromium as (Cr)	mg / l	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	0.2 (1.0)	Nil	Nil
30	Total Coliform	MPN/100 ml	Absent	> 16	> 16
31	E. Coli	Nos./100 ml	Absent	> 16	> 16

## SW4: Kachewani Pond water

Sr.	Test Parameters	Unit	As per IS 10500 · 2012	Res	sults
No.		Omt	As per 15 10500 . 2012	May 2020	Sept. 2020
1	Apparent Colour	Hazen units	5 (15)	2.0	2.5
2	Odour	-	Agreeable	Agreeable	Agreeable
3	Taste	-	Agreeable	-	-
4	Turbidity NTU	NTU	1(5)	1.0	1.5
5	Total Dissolved Solid	mg / 1	500 (2000)	310	105
6	Electrical Conductivity	µS/cm	-	504	172
7	Total Alkalinity	mg / 1	200 (600)	174	82
8	<b>pH Value</b> at 25°C	-	6.5 to 8.5	8.10	8.15
9	Total Hardness (CaCO3)	mg / 1	200 (600)	105	64
10	Calcium (as Ca)	mg / 1	75 (200)	30.0	19.8
11	Magnesium (as Mg)	mg / 1	30 (100)	7.30	3.5
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	0.090	0.070
14	Manganese as (Mn)	mg / 1	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / 1	250(1000)	13.1	9.0
16	Sulphate (as SO4)	mg / 1	200 (400)	9.8	6.4
17	Nitrates (as NO3)	mg / 1	45	3.25	2.30
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.45	0.25
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.24	0.10
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	0.2 (1.0)	Nil	Nil
30	Total Coliform	MPN/100 ml	Absent	> 16	> 16
31	E.Coli	Nos./100 ml	Absent	> 16	> 16

#### TABLE- 3.5 GROUND WATER REPORT

Monitoring Date: 28.05.2020

	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	8.70	Round	11.00	Near Vitoba Ahinshak Suryavanshi Residence						
Khairbori	1.10	1.83	8.10	Round	10.10	Near Hanuman Temple, Durga Temple						
Churadi	1.20	2.60	9.05	Round	11.60	Near Primary School						
Kachewani	1.5	4.80	10.70	Round	12.30	Opp. ZP. school						

Monitoring Date: 4.09.2020

	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	3.10	Round	11.00	Near Vitoba Ahinshak Suryavanshi Residence					
Khairbori	1.10	1.83	2.60	Round	10.10	Near Hanuman Temple, Durga Temple					
Churadi	1.20	2.60	3.80	Round	11.60	Near Primary School					
Kachewani	1.5	4.80	2.40	Round	12.30	Opp. ZP. school					

#### **GROUND WATER QUALITY**

#### **GW1: Kachewani Hand Pump water**

Sr.				Re	sults
No.	Test Parameters	Unit	As per IS 10500 : 2012	May 2020	Sept. 2020
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 / 1	500 (2000)	855	630
6	Electrical Conductivity	µS/cm	-	1382	1024
7	Total Alkalinity	mg / 1	200 (600)	190	180
8	pH Value at 25°C	-	6.5 to 8.5	7.75	7.7
9	Total Hardness (CaCO3)	mg / 1	200 (600)	382	284
10	Calcium (as Ca)	mg / 1	75 (200)	90.8	76.2
11	Magnesium (as Mg)	mg / 1	30 (100)	37.7	22.7
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	0.12	0.08
14	Manganese as (Mn)	mg / 1	0.1(0.3)	0.008	0.005
15	Chlorides (as Cl)	mg / 1	250(1000)	169	94.3
16	Sulphate (as SO4)	mg / 1	200 (400)	114.2	104
17	Nitrates (as NO3)	mg / 1	45	2.40	2.35
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.90	0.65
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / l	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.76	0.35
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	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

Sr.				Res	sults
No.	Test Parameters	Unit	As per IS 10500 :2012	May 2020	Sept. 2020
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 / 1	500 (2000)	594	330
6	Electrical Conductivity	µS/cm	-	964	538
7	Total Alkalinity	mg / 1	200 (600)	192	162
8	<b>pH Value</b> at 25°C	-	6.5 to 8.5	7.70	7.60
9	Total Hardness (CaCO3)	mg / 1	200 (600)	248	194
10	Calcium (as Ca)	mg / 1	75 (200)	57.8	51.8
11	Magnesium (as Mg)	mg / 1	30 (100)	25.1	15.7
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	0.095	0.080
14	Manganese as (Mn)	mg / 1	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / 1	250(1000)	31.6	25.7
16	Sulphate (as SO4)	mg / 1	200 (400)	19.2	13.2
17	Nitrates (as NO3)	mg / 1	45	2.40	2.30
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.90	0.65
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.44	0.30
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	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

#### **GW2: Mendipur Hand Pump water**

Sr.				Re	sults
No.	Test Parameters	Unit	As per IS 10500 : 2012	May 2020	Sept. 2020
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 / 1	500 (2000)	760	512
6	Electrical Conductivity	µS/cm	-	1230	830
7	Total Alkalinity	mg / 1	200 (600)	210	170
8	<b>pH Value</b> at 25°C	-	6.5 to 8.5	7.85	7.35
9	Total Hardness (CaCO3)	mg / 1	200 (600)	394	290
10	Calcium (as Ca)	mg / 1	75 (200)	86.2	76.2
11	Magnesium (as Mg)	mg / 1	30 (100)	43.3	24.2
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	0.12	0.09
14	Manganese as (Mn)	mg / 1	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / 1	250(1000)	126	84.5
16	Sulphate (as SO4)	mg / 1	200 (400)	51.3	31.8
17	Nitrates (as NO3)	mg / 1	45	2.35	2.30
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.90	0.70
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.46	0.32
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	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

#### GW3: Garada Hand Pump water

#### GW4: Chikhali Hand Pump water

Sr.				Re	sults
No.	Test Parameters	Unit	As per IS 10500 : 2012	May 2020	Sept. 2020
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 / 1	500 (2000)	670	520
6	Electrical Conductivity	µS/cm	-	1094	840
7	Total Alkalinity	mg / 1	200 (600)	210	194
8	pH Value at 25oC	-	6.5 to 8.5	8.05	7.85
9	Total Hardness (CaCO3)	mg / 1	200 (600)	314	208
10	Calcium (as Ca)	mg / 1	75 (200)	76.2	63.8
11	Magnesium (as Mg)	mg / 1	30 (100)	30.0	11.8
12	Copper as(Cu)	mg / 1	0.05(1.5)	< 0.01	< 0.01
13	Iron (as Fe)	mg / 1	0.3	0.15	0.10
14	Manganese as (Mn)	mg / 1	0.1(0.3)	< 0.01	< 0.01
15	Chlorides (as Cl)	mg / 1	250(1000)	35.5	21.6
16	Sulphate (as SO4)	mg / 1	200 (400)	21.4	15.0
17	Nitrates (as NO3)	mg / 1	45	2.30	2.25
18	Fluoride (as F)	mg / 1	1.0 (1.5)	0.90	0.70
19	Phenolic Compounds	mg / 1	0.001	BDL	BDL
20	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005
21	Cadmium as (Cd)	mg / 1	0.003	< 0.001	< 0.001
22	Selenium as (Se)	mg / 1	0.01	< 0.001	< 0.001
23	Arsenic as (As)	mg / 1	0.01 (0.05)	< 0.01	< 0.01
24	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005
25	Lead as (Pb)	mg / 1	0.01	< 0.001	< 0.001
26	Zinc as (Zn)	mg / 1	5 (15)	0.41	0.23
27	Total Chromium as (Cr)	mg / 1	0.05	< 0.03	< 0.03
28	Mineral Oil	mg / 1	0.05	< 0.01	< 0.01
29	Free Residual Chlorine	mg / 1	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

#### TABLE- 3.6 WASTE WATER QUALITY (May2020- Sept. 2020)

Sr. No.	Parameters	Unit MPCB		Results		
		Omt	Limit	May2020	Sept. 2020	
1.	Free Available Chlorine	mg / 1	0.5	0.17	0.15	
2.	Zinc as (Zn)	mg / 1	1.0	0.14	0.16	
3.	Total Chromium as (Cr)	mg / 1	0.2	0.010	0.011	
4.	Phosphate as (PO4)	mg/ l	5.0	1.32	1.38	

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

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

Sr. No.	Parameters	Unit	МРСВ	Results		
		Omt	Limit	May2020	Sept. 2020	
1.	Free Available Chlorine	mg / 1	0.5	0.15	0.20	
2.	Zinc as (Zn)	mg / 1	1.0	0.20	0.18	
3.	Total Chromium as (Cr )	mg / 1	0.2	0.014	0.013	
4.	Phosphate as (PO4)	mg/ l	5.0	1.37	1.35	

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

Sr. No.	Parameters	Unit MPCB		Results		
		Cint	Limit	May2020	Sept. 2020	
1.	Free Available Chlorine	mg / 1	0.5	0.20	0.17	
2.	Zinc as (Zn)	mg / 1	1.0	0.15	0.21	
3.	Total Chromium as (Cr)	mg / 1	0.2	0.009	0.015	
4.	Phosphate as (PO4)	mg/ l	5.0	1.32	1.33	

Sr.	Parameters	<b>T</b> T •4	МРСВ	Results		
No.		Unit	Limit	May2020	Sept. 2020	
1.	Free Available Chlorine	mg / 1	0.5	0.17	0.15	
2.	Zinc as (Zn)	mg / l	1.0	0.19	0.18	
3.	Total Chromium as (Cr)	mg / 1	0.2	0.010	0.010	
4.	Phosphate as (PO4)	mg/ l	5.0	1.31	1.31	

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

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

Sr.	Parameters	Unit	МРСВ	Results		
No.			Limit	May2020	Sept. 2020	
1.	Free Available Chlorine	mg / 1	0.5	0.16	0.30	
2.	Zinc as (Zn)	mg / l	1.0	0.17	0.22	
3.	Total Chromium as (Cr )	mg / 1	0.2	0.013	0.016	
4.	Phosphate as (PO4)	mg/ l	5.0	1.35	1.41	

Sample Category : Unit-2- Boiler Blow Down water (WW-6)

Sr.	Test	Unit	МРСВ	Res	Results	
No.	Parameters		Standards	May2020	Sept. 2020	
1.	TSS	mg / 1	100	Sample Not	24	
2.	Oil & Grease	mg / 1	20	Available	< 4	
3.	Copper (as Cu)	mg / 1	1		0.05	
4.	Iron (as Fe)	mg / 1	1		0.01	

#### TABLE- 3.7 Pizo-metric well water Report

Monitoring Date: 28.05.2020

	STATIC WATER LEVEL OF PIZO. WELL								
Name of village	Water level from B.G.L. (m)	Total Depth of Pizo well from G.L (m)	Total Depth of Pizo well with Casing (m)	Landmark					
Pizo well (P1)	2.70	18.6	19.8	Near AWRPH					
Pizo well (P2)	2.40	20.0	21.0	B/H Ash dyke -1					
Pizo well (P3)	2.60	20.0	20.7	Near Raw Water pump house -02					

Pizo-metric well water	<b>Analysis Report</b>
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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	8.05	8.15	8.0
2	Total Dissolved Solid	mg / 1	500 (2000)	630	738	720
3	Electrical Conductivity	µS/cm	-	1021.3	1194	1172
4	Copper as(Cu)	mg / 1	0.05 (1.5)	< 0.01	< 0.01	< 0.01
5	Iron (as Fe)	mg / 1	0.3 (1.0)	0.18	0.20	0.18
6	Manganese as (Mn)	mg / 1	0.1 (0.3)	0.095	0.10	0.095
7	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005	< 0.0005
8	Cadmium as (Cd)	mg / 1	0.01	0.0021	0.0033	0.0016
9	Selenium as (Se)	mg / 1	0.01	0.0016	0.0024	0.0019
10	Arsenic as (As)	mg / 1	0.05	0.014	0.016	0.012
11	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005	< 0.005
12	Lead as (Pb)	mg / 1	0.05	0.0031	0.0031	0.0013
13	Zinc as (Zn)	mg / 1	5 (15)	3.90	4.05	3.84
14	Total Chromium as (Cr)	mg / 1	0.05	< 0.010	< 0.010	< 0.010

For the Month Sept 2020

	STATIC WATER LEVEL OF PIZO. WELL								
Name of village	Water level from B.G.L. (m)	Total Depth of Pizo well from G.L (m)	Total Depth of Pizo well with Casing (m)	Landmark					
Pizo well (P1)	0.4	18.6	19.8	Near AWRPH					
Pizo well (P2)	0.6	20.0	21.0	B/H Ash dyke -1					
Pizo well (P3)	0.4	20.0	20.7	Near Raw Water pump house -02					

#### Pizo-metric well water Analysis Report

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	рН		6.5 to 8.5	7.70	7.80	7.70
2	Total Dissolved Solid	mg / 1	500 (2000)	450	480	508
3	Electrical Conductivity	µS/cm	-	730	780	824
4	Copper as(Cu)	mg / 1	0.05 (1.5)	< 0.01	< 0.01	< 0.01
5	Iron (as Fe)	mg / 1	0.3 (1.0)	0.11	0.11	0.10
6	Manganese as (Mn)	mg / 1	0.1 (0.3)	0.065	0.070	0.072
7	Mercury as (Hg)	mg / 1	0.001	< 0.0005	< 0.0005	< 0.0005
8	Cadmium as (Cd)	mg / 1	0.01	0.0011	0.0014	0.0010
9	Selenium as (Se)	mg / 1	0.01	0.0010	0.0011	0.0012
10	Arsenic as (As)	mg / 1	0.05	0.007	0.008	0.008
11	Cyanide as (CN)	mg / 1	0.05	< 0.005	< 0.005	< 0.005
12	Lead as (Pb)	mg / 1	0.05	0.0015	0.0016	0.0010
13	Zinc as (Zn)	mg / 1	5 (15)	1.8	2.70	2.94
14	Total Chromium as (Cr)	mg / 1	0.05	< 0.010	< 0.010	< 0.010

				RESUL	T (dBA)			
SL.	LOCATION			DA	AY			
NO.		April 2020	May 2020	Jun. 2020	Jul. 2020	Aug. 2020	Sept. 2020	
1	Near Shanti Niketan I, II & III	52.9	43.4	57.7	53.5	42.9	41.8	
2	Near Labour Hutment	63.5	63.8	62.8	61.6	63.8	61.5	
3	Near Store Area	57.9	64.5	68.2	54.4	63.1	54.3	
4	Gate No.1	54.8	57.1	55.2	56.7	57.7	53.2	
5	Gate No.2	62.1	57.3	66.1	51.7	58.1	64.4	
6	Gate No.3	64.7	63.6	71.2	64.7	60.7	53.4	
7	Near OHC	52.6	64.6	56.0	60.7	60.6	61.3	
8	Railway Siding	65.9	65.8	67.3	65.7	65.6	64.9	
9	Near Reservoir 2	54.3	52.6	59.7	62.2	55.0	59.3	
10	Near Ash Water Recovery Pump House	52.0	61.1	61.5	66.3	52.1	64.3	
11	In China Colony	42.2	41.1	41.1	46.6	39.7	40.7	
С	PCB Standards							
In	dustrial Area	75						

TABLE- 3.8 Noise Level (Within Plant area)

				RESUL	T (dBA)			
SL.	LOCATION			NIC	GHT			
NO.		April 2020	May 2020	Jun. 2020	Jul. 2020	Aug. 2020	Sept. 2020	
1	Near Shanti Niketan I II & III	43.0	40.2	47.3	50.2	40.0	39.9	
2	Near Labour Hutment	55.4	53.4	55.4	58.4	57.2	58.1	
3	Near Store Area	45.5	45.5	51.1	48.5	58.4	49.7	
4	Gate No.1	44.0	43.0	49.0	51.1	52.0	47.8	
5	Gate No.2	53.3	50.3	58.3	46.6	51.1	50.0	
6	Gate No.3	54.8	51.8	56.7	58.7	53.3	50.6	
7	Near OHC	49.5	58.5	48.8	50.0	56.4	54.2	
8	Railway Siding	57.4	55.4	60.5	61.1	60.4	59.2	
9	Near Reservoir 2	41.1	40.1	48.5	47.7	50.7	51.1	
10	Near Ash Water Recovery Pump House	40.5	51.5	50.4	55.3	49.4	54.2	
11	In China Colony	38.8	37.8	38.5	41.8	37.7	38.0	
С	PCB Standards							
In	dustrial Area	70						

Sr. No.	Test Parameters	Unit	Garada Village	Mendipur Village	Churdi Village
1	рН	-	7.85	8.0	7.90
2	E. Conductivity	µs/cm	622	434	460
3	Nitrogen as N	Kg/ha	234	215	180
4	Phosphorus as P2O5	Kg/ha	98.7	72.3	51.7
5	Potassium as K	Kg/ha	68.3	58.8	46.6
6	Calcium (as Ca)	Kg/ha	3.74	4.02	3.92
7	Magnesium (as Mg)	Kg/ha	1.28	0.96	1.04
8	Total Organic Carbon	%	0.652	0.682	0.617
9	Iron as Fe	Kg/ha	2.44	2.30	2.17
10	Boron as B	Kg/ha	ND	ND	ND
11	Natural Moisture Content	%	6.3	6.5	6.6
12	Field Capacity	%	6.7	6.2	7.2
13	Wilting Coefficient	%	0.70	0.67	0.73
14	Available Water Storage Capacity	%	0.62	0.63	0.62
15	Bulk Density	gm/cc	1.37	1.38	1.36
16	Grain size Distribution : a) Sand	%	35.6	37.2	36.5
	b) Silt	%	31.8	31.9	33.3
	c) Clay	%	32.6	30.9	30.2
17	Cation Exchange Capacity	meq/100gm	37.1	35.4	36.1
18	Biological Status:				
	a) Total Heterotrophy	CFU	52.4 x10 <sup>3</sup> /gm	33.6 x10 <sup>3</sup> /gm	46.3 x10 <sup>3</sup> /gm
	b) Azetobacter	CFU	60.3 x10 <sup>3</sup> /gm	43.7 x10 <sup>3</sup> /gm	51.5 x10 <sup>3</sup> /gm
	c) Actinomycetes	CFU	44.7 x10/gm	28.1 x10 <sup>2</sup> /gm	$46.1 \text{ x} 10^3/\text{gm}$
	d) Yeast	CFU	$173 \text{ x} 10^2/\text{gm}$	$198 \text{ x} 10^2/\text{gm}$	181 x10 <sup>2</sup> /gm

## TABLE- 3.9 SOIL ANALYSIS as Per IS 2720 for (Sept.2020)

## Annexure I - On site Meteorological Data for APR. 2020- SEPT. 2020

## <u>Apr. 2020</u>

Date	Wind Direction (Blowing	m Wind Speed (Km/hr)		Tem	perature	(°C)	Н	umidity (%	6)	Barometric Pressure (mBar)	Rainfall (mm)
	From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.04.2020	ENE	38.8	5.9	33.6	20.6	27.3	78.3	34.6	53.2	981.2	0.0
02.04.2020	S	24.0	3.2	34.8	20.7	28.0	79.1	28.0	48.8	980.1	0.0
03.04.2020	S	60.8	5.7	34.1	21.2	27.1	87.1	33.8	47.3	981.4	11.8
04.04.2020	S	59.5	5.1	32.6	21.1	25.7	87.5	38.7	65.5	982.2	0.0
05.04.2020	S	26.4	2.8	34.4	20.5	26.9	88.9	35.6	59.6	983.0	0.0
06.04.2020	NNW	47.9	4.4	34.8	22.1	27.8	77.4	35.5	53.9	982.0	0.0
07.04.2020	ENE	35.6	5.3	34.2	21.9	27.7	72.9	33.6	52.8	979.7	0.0
08.04.2020	ENE	37.3	6.5	34.9	23.0	28.2	72.2	27.6	46.1	980.3	0.0
09.04.2020	NW	37.8	5.3	37.7	22.1	28.1	61.4	24.6	43.6	981	0.0
10.04.2020	NW	59.3	5.7	34.9	22.6	27.3	74.4	27.8	49.2	982.4	0.0
11.04.2020	SE	40.9	4.1	35.2	20	27.8	72.1	29.4	46.9	983.8	0.0
12.04.2020	Ν	35.1	4.1	35.9	22	29.5	73.7	28.8	45.5	981.9	0.0
13.04.2020	NNW	31.4	5.1	35.7	22.4	29.7	74.8	30.1	46.3	980.5	0.0
18.04.2020	SSW	41.5	4.8	38.6	24.8	29.6	63.4	29.7	42.2	964.6	0.0
19.04.2020	NNW	31	6.6	32.2	24	27.5	69.5	36.6	52.3	980.9	0.0
20.04.2020	ENE	35.6	5.8	38.2	22.6	29	75.9	31.7	50.1	979.8	0.0
21.04.2020	Ν	59.5	7.7	38.6	25.5	30.3	61.5	28.3	45.5	979	0.0
22.04.2020	NW	41.7	5.9	39.5	23.2	29.4	64.4	31.1	43.6	979.2	0.0
23.04.2020	NNW	43.5	6.3	39.8	25.1	30.0	63.7	28.4	46.7	978.4	0.0
24.04.2020	ENE	59.5	8.2	39.4	25.3	30.1	63.4	29.9	46.2	976.9	0.0
25.04.2020	ENE	45.7	5.5	40.1	25.4	30.3	67.0	28.1	43.6	977.1	0.0
26.04.2020	NE	44.0	7.1	39.3	25.3	30.1	63.4	29.9	46.2	976.9	0.0
27.04.2020	WNW	62.5	8.7	35.1	20.6	26.5	69.6	38.2	42.5	980.0	0.8
28.04.2020	E	34.4	4.3	36.9	21.0	26.5	68.9	37.2	46.3	981.3	0.0
29.04.2020	NNW	53.4	3.9	38.2	21.6	27.3	65.9	29.1	42.3	972.6	0.0
30.04.2020	ESE	58.5	5.5	36.2	23.9	28.9	60.8	27.9	43.9	980.3	0.0

## <u>May 2020</u>

Date	Wind Direction (BlowingWind Speed (Km/hr)		Speed n/hr)	Tem	perature	(°C)	H	umidity (%	<b>(</b> 0)	Barometric Pressure (mBar)	Rainfall (mm)
	From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.05.2020	Е	63	7.5	35.5	22	28.6	68.3	30.6	45.6	979.2	2.4
02.05.2020	NW	28.2	4.2	40.3	30.6	24.5	59.6	24.4	39.4	977.3	0
03.05.2020	NNW	32.1	4.8	41.2	25.7	31.5	56.3	25.1	37.8	977	0
04.05.2020	ENE	48.2	7.1	41.5	25	31.8	50.9	26.5	36.8	977.8	0
05.05.2020	S	47.9	6.2	41.9	25.4	31.6	57	30.6	42.4	978.2	0
06.05.2020	NW	38	5.8	41.5	25.5	30.3	57.3	27.7	42.9	978.6	0
07.05.2020	NW	61.8	6.6	42.1	23.2	30.1	60.9	33	45.1	979.5	0.2
08.05.2020	ENE	63	9.3	34.9	25.4	28.2	61.3	33.9	50.8	978.3	0
09.05.2020	ENE	44.7	5	41.2	22.7	28.8	71.5	30.5	48.9	979.4	0
12.05.2020	NW	38	5.1	41.6	24.4	30.2	60.8	30	42.7	979.3	0.4
13.05.2020	ENE	63	8.1	41.1	24.1	27.8	64.4	34.4	49	978.6	0
14.05.2020	ESE	35.3	4.2	39.8	22.9	29.9	70.4	29.7	46.3	978.3	0
15.05.2020	Е	51.6	6.6	37.1	26.2	31.2	57.8	30.9	43	976.4	0
16.05.2020	NNE	33.8	4.5	36.3	22.2	29.4	77.7	33.1	48.9	976.7	8.2
17.05.2020	W	63	7.4	36.8	25.5	30.9	62.3	30.6	58.5	976	0
18.05.2020	ESE	62.2	6.5	41.6	25.4	31.1	58.1	29.3	42.1	973.6	0
19.05.2020	S	49.4	3.8	42.5	23.9	29.4	63.8	28.2	43.1	972.6	0
20.05.2020	S	54.3	4.2	42.9	23.7	31.2	61.8	20.4	36.8	971.4	0
21.05.2020	SSE	42.7	4.3	43.1	23.4	32.5	49.3	20.2	31.5	973.5	0
22.05.2020	SSE	54.8	3.6	46.5	26	32.6	60.4	20.9	33.7	974.8	0
23.05.2020	NW	40.3	3.6	45.9	26.3	34.5	46.9	21.8	30.9	975.3	0
24.05.2020	NW	38.5	4.6	46.2	28	35.2	48.2	22.7	32.3	976.1	0
25.05.2020	NNW	28.4	4.1	46.9	27.8	33.5	50.5	22.4	34.9	976.5	0
26.05.2020	N	40.5	7.1	46.1	28.1	35.6	55.9	23.1	37.4	976.4	0
27.05.2020	NE	59.5	8	45.6	27.9	34.6	55.7	23.9	35.4	974.9	0
28.05.2020	NNW	40.3	5.6	46.2	28.6	35.6	49	23.5	33.6	973.5	0
29.05.2020	NW	49.2	6.2	45.9	27.5	32.6	51.5	27.1	37.5	974.7	0
30.05.2020	N	52.6	7.2	45.7	29.6	31.6	50.78	25.4	36.3	974.9	0

#### <u>Jun. 2020</u>

Wind Direction		Wind (Kn	Speed n/hr)	Tem	perature	(°C)		Humidity	(%)	Barometric Pressure (mBar)	Painfall (mm)
Date	(Blowing From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	Kaiman (iiiii)
02.06.2020	SSE	41	5.2	34	25.6	22.2	42.3	33.7	27.2	979.1	3.6
03.06.2020	SW	34.1	4.4	30.1	22.2	25.5	42.6	23.9	35.8	978	10.8
04.06.2020	ENE	61.8	13.2	31.8	22.7	28.2	43.3	26.6	34.4	974.5	2.6
05.06.2020	NE	42.5	13.9	32.8	21.7	24.6	45,6	25	35.5	975.1	0
06.06.2020	ENE	62.2	6.4	36.6	20.9	26.3	43.4	21.2	32.2	975.8	8.4
07.06.2020	Е	63	5.3	32.4	22.2	26.6	41.1	22	32.9	975	26.4
08.06.2020	NE	42.2	3.8	34	24.1	28.1	39.9	18.9	30.2	975	1.8
09.06.2020	SE	60.5	3.7	40.6	24.4	28.6	39.1	17.8	28.5	974.9	0
10.06.2020	ENE	31.4	4.4	41.2	25.2	29.7	37.4	16.9	27.3	973.5	0
11.06.2020	ENE	48.7	5.8	40.1	24.2	30.1	38.7	18	30	971.5	0
12.06.2020	ENE	63	4.7	38.7	24.3	28.9	43.1	22	34.2	970.6	26.2
13.06.2020	ENE	21.2	4.2	31.9	26.9	28.9	43	31.3	38.5	971.8	3.2
14.06.2020	E	57.3	4.3	38.5	26	30.3	44	22.9	36.5	972.9	16.2
15.06.2020	Е	63	4.1	37.8	27	29.7	43.4	23.1	38.1	972.3	1.8
16.06.2020	NE	34.8	6.6	34.4	27	30.2	43.9	30.2	37	970.9	2.6
17.06.2020	ENE	39.3	6.6	33.8	27.4	30.5	42.5	30.8	36.5	971.4	0
18.06.2020	ENE	52.2	8.8	35.5	24.7	30	43.9	27.5	35.3	973	14.8
19.06.2020	ENE	41.7	8	35.9	25.3	30.2	44.1	24.3	34.8	973.9	3.6
20.06.2020	ENE	44	9.6	34.9	28.7	31.5	38.9	25.4	31.9	973.7	0
21.06.2020	E	52.6	12.8	35.1	26.3	31.4	41.1	32.7	33.3	972.1	0
22.06.2020	Е	52.2	7.4	31.8	25.5	28.5	44.1	30.6	37.3	971.7	26
23.06.2020	E	30.6	6.1	28.8	25.3	26.7	44.6	40.4	43.2	974.3	19.6
24.06.2020	NW	54.3	3.8	38.2	26.4	30.8	43.6	23.3	36	976.1	0
25.06.2020	NE	37	5.3	38	28	32	41.6	24.9	33.5	975.4	0
26.06.2020	ENE	37.8	5.2	36.1	27.4	31.8	40.1	26.8	32.9	975	0
27.08.2020	ENE	46.2	6.5	36.8	27.6	31.5	63.2	24.4	32.9	975.4	0
28.06.2020	ENE	62.5	6.8	38.4	25.3	29.8	60.1	22.7	36.5	975.3	54.2
29.06.2020	WSW	34.8	2.2	37.7	26.7	30.8	57.6	25.4	36.7	975	0
30.06.2020	WSW	32.1	3.3	35.5	26.1	30.5	58.6	27.1	36.2	974.6	11.8

## <u>July 2020</u>

Date	Wind Direction (Blowing	Wind (Kr	Wind Speed (Km/hr) Temperature (°C) Humidity (%)		(%)	Barometric Pressure (mBar)	Rainfall (mm)				
	From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.07.2020	E	29.9	5.8	35.4	26.2	30.5	53.6	26.8	35.5	974	0.4
02.07.2020	ENE	55	4.8	37.9	26.1	30.8	63.9	24.4	38.6	972.4	8.6
03.07.2020	ENE	33.3	6	35.2	27.7	30.8	65.9	28	36.2	971.8	0
04.07.2020	ENE	30.6	4.4	34.3	27.8	29.8	69.7	29.7	37.7	971.1	0
05.07.2020	ENE	61	4.8	34.6	25.9	27.9	79.6	35.6	42.3	970.2	42.4
06.07.2020	ENE	38.3	9.4	31.4	25.5	27.3	68.9	33.9	46.9	970.9	37.2
07.07.2020	NNW	28.7	6.6	36	26.4	30.4	72.6	26.1	36.9	973.7	0.6
08.07.2020	ENE	32.6	6.9	36.1	27.7	31.4	71.3	25.5	33.4	975.7	0
09.07.2020	ENE	35.6	4.8	35.6	27.5	30.2	69.3	27.6	37.2	974.2	3.8
10.07.2020	ENE	40.8	6.6	34.4	26.9	29.3	76.9	28.5	385	974.4	2.2
11.07.2020	ENE	48.9	5.4	33.2	27	29.7	69.3	30.8	38.5	974.3	6.4
12.07.2020	N	63.1	6.9	35.5	25.4	29.6	76.9	28.1	38.1	974.4	20.6
13.07.2020	ENE	31.1	5.4	37.5	26.9	29	89.5	35.6	45.9	973.9	11.8
14.07.2020	Ν	29.1	2.8	34.1	27.1	29.7	91.6	38.9	43.2	973.5	0.4
15.07.2020	ENE	27.9	4.3	34.2	26.3	28.7	85.3	29.6	34.6	972.6	0.8
16.07.2020	NE	45.9	5.7	37.5	25.7	26.6	93.6	31.9	49.3	970.4	16
17.07.2020	NNW	26.2	5.5	34.7	27	30.1	72.6	27.9	32.5	972.6	1.2
18.07.2020	NW	26.9	5.5	38.2	27.6	31.9	81.5	28.6	52.4	974.9	0
19.07.2020	NE	63	6.12	36.1	27.8	30.5	88.2	42.6	81.3	975.4	0
20.07.2020	ENE	27.4	4.4	29.8	27	28.3	92.1	88.7	83.1	9748	2.4
21.07.2020	Ν	41.2	5.1	33.3	26.5	29.7	94.3	69.8	85.3	976.4	1.6
22.07.2020	NE	62.2	4.3	35	26.1	29.7	93.9	67.2	83.7	976.7	30.2
23.07.2020	NNE	35.1	7.2	33.1	24.9	27.2	95.6	71.6	89.6	976.1	24.6
24.07.2020	NE	17.8	3.2	34.6	25.7	28.7	95	62	84	977.3	0
25.07.2020	NNW	32.4	4.6	34.5	27.2	30.3	92	59.6	79.3	978.5	0
26.07.2020	NNW	24.2	4.65	37.4	27.2	31.1	92.8	52.4	76.5	979.3	3
27.07.2020	NW	31.9	4.6	38.5	28.5	32.6	89.3	50.9	72.3	977.6	0
28.07.2020	NNW	44.2	4.4	37.2	24.3	31.2	88.3	56.5	77.2	975.8	1.5
29.07.2020	NW	31.1	5.1	36.9	30	26	97.7	56.5	79.2	975.4	21
30.07.2020	NWN	26.4	4.3	36.2	27.7	31.3	91.6	57.2	77.4	976	0
31.07.2020	NW	20.5	4.1	36.8	28.3	31.8	90.5	58.2	77.9	975.6	0

#### <u>Aug. 2020</u>

Date	Wind Direction (Blowing	Wind Speed (Km/hr)		Tem	perature	(°C)		Humidity	(%)	Barometric Pressure (mBar)	Rainfall (mm)
	From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.08.2020	NNW	45.7	4.1	37.2	27.6	30.7	93.7	58.8	81.1	975	13.4
02.08.2020	NW	28.2	4.4	35.8	26.8	30.5	90.5	62.5	79	973.7	0
03.08.2020	NE	49.9	8.6	32.6	25.6	28.8	96	69.4	85.1	971.1	54.4
04.08.2020	NNE	45.7	4.6	32.5	25.7	27.8	96.2	74.9	90.1	968.1	6.8
05.08.2020	NE	46.1	5.1	33.2	22.8	28	95.8	66.7	81.25	978	2.5
06.08.2020	NNW	38.8	6.7	32.7	26.4	28.3	95.6	68.8	86.9	967.5	6.6
07.08.2020	NE	35.3	7.4	33.1	27.4	29.7	92.3	67.5	81.8	972.1	0
08.08.2020	ENE	56.6	8.8	31.9	26.4	28.9	95.9	85.4	71.9	971.8	31.2
09.08.2020	ENE	49.4	5.9	28.7	26.1	27.2	96.7	87	93.4	970.1	63.4
10.08.2020	N	28.7	9.1	30.9	26.5	27.8	96.5	80.9	93.3	969.3	12.4
11.08.2020	NE	47.2	10.1	33	27	28.6	96	74.5	90.4	970.1	7.6
12.08.2020	ENE	37.8	8.9	31	27	28.2	95.6	78.6	89.1	971.8	9.4
13.08.2020	NNE	44.7	13.1	28.6	26.3	26.9	97	87	94.1	969.8	57.4
14.08.2020	NE	46.7	13.7	28.9	25.2	26.6	96.3	84	92.3	968.2	2.8
15.08.2020	NNE	34.3	9.5	29.1	25.5	27.3	96.2	83.9	91.7	968.5	2.8
16.08.2020	NE	33.6	13.7	28.9	25.2	26.6	96.4	88.3	93.3	968	4.2
17.08.2020	NNE	35.1	10.9	31.3	26.2	27.8	96.4	80.3	96.4	968.1	2.6
18.08.2020	NE	34.8	10.7	28.8	26.7	27.5	95.2	88.4	92.4	969.6	3.2
19.08.2020	ENE	50.4	8.7	33.7	26.8	28.4	96.2	69.8	89.6	968.9	34.6
20.08.2020	NW	60.3	9.6	34.8	25.9	28.3	97	66.8	89.7	967.1	60
21.08.2020	NNE	57.6	13.1	28	26.2	27	96.9	89.1	93.1	968.5	16.8
22.08.2020	ENE	41	5.1	32	26.2	28.3	95.9	71.9	86.3	972.1	4.4
23.08.2020	NE	36.6	4.7	34.4	25.9	28.5	96.2	65.2	86.5	973.5	14.8
24.08.2020	NNE	33.6	5.4	34.8	26.4	29.9	93.6	61.1	78.7	974.1	0
25.08.2020	ENE	45	8.1	33.9	27.5	30	90	62.9	79.4	975.7	0
26.08.2020	NE	22.2	6.4	31.1	27.6	28.9	90.5	74.1	83.2	975.4	0
27.08.2020	ENE	49.6	12.9	28.2	26.1	26.9	96	87.8	93.1	972	22.2
28.08.2020	ENE	63	21.9	26.5	24.4	25.5	99.8	92.5	95.6	969.2	112.2
29.08.2020	NE	59.4	9.1	29.6	25.4	27.1	96.5	79.3	89.4	971.2	9.4
30.08.2020	N	30.6	6.1	35	25.9	29.7	95.2	60.5	80.4	974	2.6
31.08.2020	NE	33.6	5.1	34.6	26.9	30.5	93.4	59.4	78.1	976	0

#### Sept. 2020

Date	Wind Direction (Blowing	Wind (Kn	Speed n/hr)	Tem	perature	(°C)	Humidity (%)		(%)	Barometric Pressure (mBar)	Rainfall (mm)
	(Dio wing From)	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)	
01.09.2020	ENE	36.3	2.9	36.8	27.2	31.4	94	56.7	76.6	974.7	2
02.09.2020	NE	21.7	1.6	33.8	27.5	29.2	93.5	66.9	83.8	976.3	0
03.09.2020	NW	27.2	4	36.6	26.8	30.4	94.3	55.7	79.2	976.8	0
04.09.2020	NNW	24.2	3.3	36.8	27.3	31.5	93.3	56.6	76.6	976.7	0
05.09.2020	NE	26	2.9	35.9	27	30	92.3	60.9	81.8	975.6	0
06.09.2020	NE	24.2	3.7	38	26.8	30.9	97.4	52.5	78.2	974.9	0
07.09.2020	NNE	33.3	4.9	34.7	27	30.4	94.7	62.5	80.6	975.4	0
08.09.2020	NE	22.5	3.9	36.4	27.6	30.9	93.8	58.2	78.2	976.1	0
09.09.2020	NE	25.2	2.9	36.3	27.2	30.2	93.3	62.6	82.5	975.1	0
10.09.2020	NNE	21.5	3.6	35.5	27.3	29.9	93.5	64.3	82.6	973.4	0.4
11.09.2020	NE	35.3	3.1	36	26.4	29.1	94.9	62.3	84.6	973	2.2
12.09.2020	ENE	15.1	1.6	37.9	26.8	30.8	93.9	54	79.9	976.4	0
13.09.2020	NE	23	1.9	37.3	27.6	31.6	93.2	56.4	78.5	974.2	0.6
14.09.2020	NE	25.4	3.2	37.4	27.9	32	93.4	54.1	75.4	973.4	0
15.09.2020	ENE	30.6	2.4	36	28	31.8	90.8	58.6	75.7	973.4	0
16.09.2020	ENE	25.9	2.3	36.5	27.8	31.5	92.9	58.8	78.4	973.5	0
17.09.2020	ENE	22	2.7	37.6	27.8	31.3	92.9	56.3	81.2	973.5	0
18.09.2020	NE	49.6	4	37	25.5	30.5	94.6	60.5	72.6	972.7	8.2
19.09.2020	NNW	32.6	3.3	37.6	26.5	29.9	95.4	60.8	81.7	971.2	0.5
20.09.2020	SSE	33.3	3.1	35.6	26.4	30.1	94.7	62.7	81.6	969.2	0.3
21.09.2020	SES	30.4	3.2	30.8	25.3	27.6	95.6	78.1	90.7	968.4	13.5
22.09.2020	SE	40.3	5.2	33.3	25.8	27.4	96.6	70.7	91.9	968.6	10
23.09.2020	NE	39.8	6.8	32.8	26.9	28.8	95.5	70.8	88.2	970.8	6.4
24.09.2020	SE	31.9	6.7	32.6	27.2	28.5	94.9	73.3	89.8	973.6	3.8
25.09.2020	SSE	31.9	5.2	35.1	27	30.1	96.4	64	81.9	974.5	0
26.09.2020	SSE	23	3.5	36.7	27.1	30.3	95	58.1	81.2	974.1	0
27.09.2020	NNE	46.4	3.3	36.9	26.3	29	92.8	55.9	82.3	975.8	1
28.09.2020	SSE	28.9	2.4	37.8	25.9	30.5	95	54.4	77.8	976.6	0
29.09.2020	NE	32.9	2.7	37.2	26.4	30	94	53	78.6	975.9	0
30.09.2020	SE	26.4	2.6	36.8	26.1	30.6	91.9	51.1	73.9	974.7	0

Annexure - I A

TC-5193

## adani ENVIRONMENTAL LABORATORY (Accredited by NABL)

#### ADANI POWER MAHARASHTRA LIMITED, TIRODA

#### Format No: APML/ENV-LB/7.8/F01

#### URL No : TC51932000000401F

Date 30.04.2020

	Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911								
Sa	mple Particulars :	Ambient Air (	Quality (Plant	)						
San	nple Collected by :	Environment	Dept. APML							
		I	Test	Report			_			
					Para	ameters				
Station	Sampling Location	Sampling	Analysis Starting	PM 10	PM 2.5	SO2	NOx			
		Date	Date	µg/m3	µg/m3	µg/m3	μg/m3			
		03.04.2020	04.04.2020	88.6	35,7	12.3	23.5			
		06.04.2020	07.04.2020	79,1	23.9	11.9	28.9			
		10.04.2020	11.04.2020	89.0	37.8	10.8	25.3			
0001		13.04.2020	14.04.2020	77.0	26.2	12.9	26,5			
AAQ 1 Near AWRS		17.04.2020	18.04.2020	80,0	31.5	9.6	19.8			
		20.04.2020	21.04.2020	76.0	28.4	8.6	16.2			
		24.04.2020	25.04.2020	75.1	29,5	7.6	12.6			
		27.04.2020	28.04.2020	68.7	20.4	8.0	13.2			
		03.04.2020	04.04.2020	66.1	21.5	11.9	18,0			
		06.04.2020	07.04.2020	75.7	22.2	8.4	12.0			
		10.04.2020	11.04.2020	62.9	20.3	9.4	11.4			
AAO 3	Ness Brield Disek	13.04.2020	14.04.2020	72.2	24.1	7.8	10.8			
AAQ Z	Near Brick Planc	17.04.2020	18.04.2020	66.8	16.6	11.0	16.2			
		20.04.2020	21.04.2020	57.1	13.8	8.8	12.6			
		24.04.2020	25.04.2020	63.5	16.3	7.4	14.4			
		27.04.2020	28.04.2020	70.4	23.3	10.0	19.2			
		03.04.2020	04.04.2020	87.4	38.0	15.5	29.5			
		06.04.2020	07.04.2020	81.5	35.7	12.5	28,9			
		10.04.2020	11.04.2020	80.1	28.3	14.3	26.5			
440 3	Chipa Colory	13.04.2020	14.04.2020	86.9	36.0	12.9	25.9			
C PNH		17.04.2020	18.04.2020	75,0	24.5	8.8	19.2			
		20.04.2020	21.04.2020	75.5	27.0	9,2	16.2			
		24.04.2020	25.04.2020	78.7	27.9	11.7	18.6			
		27.04.2020	28.04.2020	84.1	30,9	13,1	27.7			
	NAAQMS St	andard		100	60	80 amer	tal Lab 80			

#### \*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NASQMS)

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

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

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Page 1 of 1

# adani ENVIRONMENTAL LABORATORY (Accredited by NABL)

### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No. : URLTC51932000000427F

#### Date: 30.04.2020

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911	
Sample Particulars :	Ambient Noise Level (Plant)	
Sample Collected by :	Environment Dept. APML	
Date of Sampling:	25.04.2020	

#### **Test Report**

S. No	Locations	Day Time in d8 (A)	Night Time in dB (A)
		(6.00 a.m. to 10.00 p.m.)	(10.00 p.m. to 06.00 a.m.)
1	Near Shanti Niketan I II & III	52.9	43.0
2	Near Labour Hutment	63.5	55.4
3	Near Store Area	57.9	45.5
4	Gate No.1	54.8	44.0
5	Gate No.2	62.1	53.3
6	Gate No.3	64.7	54.8
7	Near OHC	52.6	49.5
8	Railway Siding	65.9	57.4
9	Near Reservoir 2	54.3	41.1
10	Near Ash Water Recovery Pump House	52.0	40.5
11	In China Colony	42.2	38.8
	CPCB Standards (Industrial Area)	75	70

#### \*\*\* End Of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB / CPCB.

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## adani Environmental Laboratory (Accredited by NABL)

#### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL NO :TC51932000000406F

Date: 30.04.2020

lssued To:	APML,Plot No. A -1, Tirc	ora Growth Centre, MIDC - Tirora, D	ist. Gondia - 441 911				
Sample Collection Date	08.04.2020	Analysis Starting Date :	08.04.2020				
Quantity received	1 Ltr / Sample	Sampled by :	Environment Dept. APML				
Sample Particulars : Condenser Cooling Water (Waste Water)							
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5							

#### TEST REPORT

Sr	Pasamotos Unit		Test Mothods MPCB		Results				
no	Folometer	Onic	Test Methods	Standards	U#1	U # 2	U#3	U#4	U # 5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5	7.7	7.6	7.9	7.5	7.4
2	Temperature	Deg C	APHA-23rd - 2550 B		36	36	35	36	35
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5	0.2	0.3	0.4	0.2	0.1

\*\*\*End of the Report\*\*\*

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Page 1 Of 1

## adani Environmental LABORATORY

(Accredited by NABL)

## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL: TC51932000000407F

30.04.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora	a Growth Centre, MIDC – Tirora,	Dist. G	ondia – 441 911			
Sample Collection Date	08.04.2020	Analysis Starting Date	:	08.04.2020			
Quantity received	1 Ltr / Sample	Sampled by	:	Environment Dept. APML			
Sample Particulars : Cooling tower blowdown (Waste Water)							
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5.							

#### TEST REPORT

Parameter				MPCB		Results				
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 2	U # 3	U#4	U # 5	
1	Free Available Chlorine	mg/l	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5	0.3	0.2	0.4	0.2	0.1	
2	Phosphate as (PO4)	mg/l	APHA-23rd -4500- P D Stannous Chloride Method	5	3.3	2.1	2.4	3.5	1.4	
3	Zinc as (Zn)	mg/l		1	BDL	BDL	BDL	BDL	BDL	
4	Total Chromium as (Cr )	mg/l		0.2	BDL	BDL	BDL	BDL	BDL	

\*\*\*End of the Report\*\*\*

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## adani ENVIRONMENTAL LABORATORY

(Accredited by NABL)

## ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format No: APML/ENV-LB/7.8/F013

URL:TC51932000000040	7F		Date:	30.04.2020
lssued To:	APML,Plot No. A -1, Tirora Gi	rowth Centre, MIDC - Tirora, Dist. G	Gondia - 441 91'	
Sample Collection Date	08.04.2020	Analysis Starting Date	08.0	04.2020
Quantity received	3 Lit /Sample	Sampled by	Environme	nt Dept. APML
Sample Particulars : Treat	ed Effluent Water			
Location of sample : DM PI	ant N-Pit , ETP Outlet			

#### TEST REPORT

Decemeter					Results		
Sr no	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet	
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	7.8	7.5	
2	TSS	mg / I	APHA-23rd - 2540 D	100	45	32	
3	TDS	mg / I	APHA-23rd - 2540 C	2100	409	382	
4	COD	COD mg / I 5220B Open Reflux Method		250	70	48	
5	BOD at 27°C for 3 days mg / I R-1999 Ad.1 BOD 3- days at 27 °C		30	21	18		
6	Oil & Grease	mg / I	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	1.4	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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4. # Indicates this parameter is not covered in our NABL scope

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#### ADANI POWER MAHARASHTRA LIMITED, TIRODA

#### Format No: APML/ENV-LB/7.8/F01

#### URL:TC519320000000409F

Date: 30.04.2020

lssued To:	APML,Plot No. A -1, Tirora G	rowth Centre, MIDC – Tirora, Dist. Go	ondia - 441 911			
Sample Collection Date	08.04.2020	Analysis Starting Date	08.04.2020			
Quantity received	3 Lit /Sample	Sampled by	Environment Dept.			
Sample Particulars : Treated Waste Water						
Location of sample : STP -1 & 2 Out Let						

#### TEST REPORT

Sr	Sr Parameter		Test Methods	MPCB Standards	Results	
no	(NABL SCOPE)				STP-1	STP-2
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5,5-9,0	7.6	7.5
2	TSS	mg / I	APHA-23rd - 2540 D	500	25	68
3	TDS	mg / I	APHA-23rd - 2540 C	2100	301	244
4	COD	mg / I	APH <b>A</b> -23rd Ed 2017- 5220B Open Reflux Method	100	55	78
5	BOD at 27 <sup>0</sup> C for 3 days	mg / i	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	24	13

\*\*\*End of the Report\*\*\*

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## adani ENVIRONMENTAL LABORATORY

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000433F		Date: 30.04.2020					
TEST REPORT							
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911							
Sample Particulars : Stack Monitoring							
Sample Collected by : Environment Dept. APML							
1 Sampling Location	:	Unit -5					
2 Date of Sampling	:	28.04.2020					
3 Time of Sampling	:	4:20 PM					
4 Load (MW)	:	605					
5 Height of Stack (Me	eter) :	275					
6 Diameter of Stack (	Meter) :	7.4					
7 Type of Fuel	:	Coal					
8 Flue Gas Temperatu	ıre ( <sup>o</sup> C) :	122					
9 Flue Gas Velocity (A	M/sec) :	22.66					
10 Flow of Exit Gas at	NTP (NM³/Hr) :	2546999					

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	44.4
2	50-	SO <sub>2</sub> IS 11255 (Part 2) 1985	1292	Mg/Nm <sup>3</sup>	887.1
	302		80.2	TPD	54.2
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	289.5

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

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## adani ENVIRONMENTAL LABORATORY (Accredited by NABL)

## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000432F		Date: 30.04.2020					
TEST REPORT							
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911							
Sample Particulars :	Stack Monitoring						
Sample Collected by :	ML						
1 Sampling Location	tion : Unit -4						
2 Date of Sampling	:	28.04.2020					
3 Time of Sampling	:	3:47 PM					
4 Load (MW)	:	558					
5 Height of Stack (M	eter) :	275					
6 Diameter of Stack (	(Meter) :	7.4					
7 Type of Fuel	:	Coal					
8 Flue Gas Temperatu	ure ( <sup>0</sup> C) :	124					
9 Flue Gas Velocity (/	M/sec) :	22.69					
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :		2537279					

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	47.7
2	50	SO <sub>2</sub> IS 11255 (Part 2) 1985	1292	Mg/Nm <sup>3</sup>	939,6
	302		80.2	TPD	57.2
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	287.2

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC51932000000431F			Dat	e: 25.04.2020	
Issued To: Dist. Gondia – 441 9			ora Growth Centre, MIDC -	Tirora,	
Sa	ample Particulars :	Stack Monitoring			
Sample Collected by : Environment Dept. APML					
1	Sampling Location	:	Unit -3		
2	Date of Sampling	:	23.04.2020		
3	Time of Sampling	:			
4	Load (MW)	: 596			
5	Height of Stack (Me	eter) :	275		
6	Diameter of Stack (i	Meter) :	7.4		
7	Type of Fuel	:	Coal		
8 Flue Gas Temperature ( <sup>0</sup> C) :		re ( <sup>0</sup> C) :	126		
9 Flue Gas Velocity (M/sec) :		N/sec) :	22.04		
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :		NTP (NM³/Hr) :	2452122		

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	45.7
2	50	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	925.8
	302	1985	80.2	TPD	51.4
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	286.6

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC51932000000430F			Da	te: 25.04.2020			
APML,Plot No. A -1,			irora Growth Centre, MIDC -	- Tirora,			
			Dist. Gondia – 441 911				
- 5							
Sa	mple Collected by :	Environment Dept. A	PML				
1	Sampling Location	:	Unit -2				
2	Date of Sampling	:	23.04.2020				
3	Time of Sampling	:	11:17 AM				
4	Load (MW)	:	616				
5	Height of Stack (Me	eter) :	275				
6	Diameter of Stack (I	Meter) :	7.4				
7	Type of Fuel	:	Coal				
8	Flue Gas Temperatu	re ( <sup>o</sup> C) :	128				
9 Flue Gas Velocity (M/sec) :		N/sec) :	23.74				
10	Flow of Exit Gas at I	NTP (NM³/Hr) :	2627979				
1							

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	40.4
2 SO <sub>2</sub>	IS 11255 (Part 2) 1985	1210	Mg/Nm <sup>3</sup>	936.6	
		75.2	TPD	55.7	
3	NOx	IS 11255 (Part 7) 2005	.300	Mg/Nm <sup>3</sup>	268.5

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000429F			Date: 25.04.2020	
TEST REPORT				
Issued To:	APML,Plot No. A -1, Ti Dist. Gondia – 441 91	irora Growth Centre, MID 1	C – Tirora,	
Sample Particulars :	Stack Monitoring			
Sample Collected by :	Environment Dept. A	PML		
1 Sampling Location	:	Unit -1		
2 Date of Sampling	:	23.04.2020		
3 Time of Sampling :		11:55 AM		
4 Load (MW)	:	630		
5 Height of Stack (M	eter) :	275		
6 Diameter of Stack (	(Meter) :	7.4		
7 Type of Fuel	:	Coal		
8 Flue Gas Temperature ( <sup>o</sup> C) :		133		
9 Flue Gas Velocity (M/sec) :		24.01		
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :		2625589		

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	41.7
	IS 11255 (Part 2)	1210	Mg/Nm³	900.3	
~	302	1985	75.2	TPD	56.7
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	278.9

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No : TC519320000000501F

Date 31.05.2020

	Issued To:	APML,Plot N	o. A -1, Tirora G	Frowth Centre,	MIDC – Tirora, I	Dist. Gondia - 4	41 911	
Sample Particulars :		Ambient Air Quality (Plant)						
Sam	ple Collected by :	Environment Dept. APML						
-			Test	Report				
1		1	Applusis		Par	ameters		
Station	Sampling Location	Sampling	Starting	PM 10	PM 2.5	S02	NOx	
		Date	Date	µg/m3	µg/m3	µg/m3	µg/m3	
		04.05.2020	05.05.2020	76.7	29.5	12.5	29.5	
		08.05.2020	09.05.2020	92.6	35.1	14.7	25.3	
		11.05.2020	12.05.2020	84.9	38.7	13.1	26.5	
		15.05.2020	16.05.2020	85.2	32.5	11.7	24,7	
AAQI	Near AWRS	18.05.2020	19.05.2020	82.0	31.2	13.5	30.1	
		22.05.2020	23,05,2020	74,9	28.8	10.4	22.B	
		25.05.2020	26.05.2020	90.2	39.2	7.8	28.3	
1		29.05.2020	30.05.2020	78.3	21.7	14.5	30.1	
	Near Brick Plant	04.05.2020	05.05.2020	66.6	25.5	10.2	20.4	
		08.05.2020	09.05.2020	75.5	30.7	11.7	21.6	
		11,05.2020	12.05.2020	71.3	24.4	12.9	24.1	
		15.05.2020	16.05.2020	78.6	22.4	10.0	27.1	
		18.05.2020	19.05.2020	77.8	21.4	9.2	16.8	
		22.05.2020	23.05.2020	68.B	29.2	8.2	22.2	
		25.05.2020	26.05.2020	81.8	37.2	7.0	19,2	
		29.05.2020	30.05.2020	79.3	24.6	8.6	18.6	
		04.05.2020	05.05.2020	96.8	41.8	14.1	28.9	
		08.05.2020	09.05.2020	84.0	37.0	12.9	22.8	
		11.05.2020	12.05.2020	95.0	42.2	15.7	30.1	
	China Colooy	15,05,2020	16.05.2020	83.4	35,4	11.9	28,9	
	Chine Colorly	18.05.2020	19.05.2020	77.7	28.0	10.6	27.7	
		22.05.2020	23,05,2020	89.6	34.0	14.3	31.9	
1		25.05.2020	26.05.2020	80.0	27.2	13.9	32,5	
		29.05.2020	30.05.2020	78.4	30,4	9.8	19.8	
	NAAQMS St	andard		100	60	80 .00	80	

\*\*\*End of the Report

Note: Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (2014)

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

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No. : URLTC51932000000523F

#### Date: 31.05.2020

issued To:	APML,Plot No. A -1, Tirora Growth Centre, M(DC - Tirora, Dist. Gondia - 441 911
Sample Particulars :	Ambient Noise Level (Plant)
Sample Collected by :	Environment Dept. APML
Date of Sampling:	30.05.2020

#### Test Report

S No.	Looptions	Day Time in dB (A)	Night Time in dB (A)
3. NO	Locations	(6.00 a.m. to 10.00 p.m.)	(10,00 p.m. to 06.00 a.m.)
		1	
1	Near Shanti Niketan I II & III	43.4	40.2
2	Near Labour Hutment	63.8	53.4
3	Near Store Area	64.5	45.5
4	Gate No.1	57.1	43.0
5	Gate No.2	57.3	50.3
6	Gate No.3	63.6	51,8
7	Near OHC	64.6	58.5
8	Railway Siding	65.8	55.4
9	Near Reservoir 2	52.6	40.1
10	Near Ash Water Recovery Pump House	61,1	51,5
11	In China Colony	41,1	37.8
	CPCB Standards (Industrial Area)	75	70

\*\*\* End Of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB / CPCB.

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- 2. The sample will be destroyed after retention time unless otherwise specified specially.
- 3. This report is not to be reproducing wholly or in part, and can't be used as evidence in cours of law.

\* TC - 5193 (NARL Certificate N blag Maharashtra BI/05/20 thorized Signatory (Technical Manager)

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000529	51932000000529F		
	TEST	REPORT	
Issued To: APML,Plot No. A -1, Tiro Dist. Gondia – 441 911		rora Growth Centre, MIDC - Tirora,	
Sample Particulars :	Stack Monitoring		
Sample Collected by :	Environment Dept. AP	ML	
1 Sampling Location	:	Unit -1	
2 Date of Sampling	;	14.05.2020	
3 Time of Sampling	:	10:55 AM	
4 Load (MW)	:	527	
5 Height of Stack (M	eter)	275	
6 Diameter of Stack	(Meter)	7.4	
7 Type of Fuel	:	Coal	
8 Flue Gas Temperat	ure ( <sup>0</sup> C) :	122	
9 Flue Gas Velocity (i	M/sec) :	22.33	
10 Flow of Exit Gas at	NTP (NM <sup>3</sup> /Hr) :	2509447	

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg∕Nm³	44,5
2		IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	933.2
	502	1985	75,2	TPD	56
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	267.6

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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Page 1 of 1

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

тся	519320000000530F		Date: 16.05.2020
APML,Plot No. A -1, Tirora Dist. Gondia – 441 911			rora Growth Centre, MIDC – Tirora, 1
s	ample Particulars :	Stack Monitoring	
Sample Collected by : Environment Dept. APML			PML
1	Sampling Location	:	Unit -2
2	Date of Sampling	:	14.05.2020
3	Time of Sampling	:	11:30 AM
4	Load (MW)	:	630
5	Height of Stack (Me	ter) :	275
6	Diameter of Stack (A	Aeter) :	7.4
7	Type of Fuel	:	Coal
8 Flue Gas Temperature ( <sup>0</sup> C) :		re ( <sup>0</sup> C) :	127
9 Flue Gas Velocity (M/sec)			24.20
10	Flow of Exit Gas at N	ITP (NM³/Hr) :	2685723

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	43.8
2	SQ.	IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	942.7
2	502	1985	75.2	TPD	57.0
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	270.3

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

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ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC!	5 <b>19320</b> 00000531F		Date: 16.05.2020
	Issued To:	APML,Plot No. A -1, Tiu Dist. Gondia - 441 911	rora Growth Centre, MIDC – Tirora,
Ş	Sample Particulars :	Stack Monitoring	
S	ample Collected by :	Environment Dept. AF	PML
1	Sampling Location	:	Unit -3
2	Date of Sampling	;	14.05.2020
3	Time of Sampling	:	12:05 PM
4	Load (MW)	:	624
5	Height of Stack (Me	ter) :	275
6	Diameter of Stack (M	Meter) :	7.4
7	Type of Fuel	:	Coal
8	Flue Gas Temperatu	те ( <sup>0</sup> С) :	126
9	Flue Gas Velocity (M	/sec) :	22.58
10	Flow of Exit Gas at N	ITP (NM³/Hr) :	2512038

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	39.9
2	50-	IS 11255 (Part 2)	1292	Mg/Nm³	939.7
2	302	1985	80.2	TPD	54.5
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	273.7

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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ADANI POWER MAHARASHTRA LIMITED, TIRODA



Format No: APML/ENV-LB/7.8/F01

TC!	519320000000532F		Date: 30.05.	2020
		TEST	REPORT	
	Issued To:	APML,Plot No. A -1, Tiu Dist. Gondia – 441 911	rora Growth Centre, MIDC - Tirora,	
2	Sample Particulars :	Stack Monitoring		
S	ample Collected by :	Environment Dept. AF	PML	
1	Sampling Location	:	Unit -4	
2	Date of Sampling	;	28.05.2020	
3	Time of Sampling	:	11:15 AM	
4	Load (MW)	:	480	
5	Height of Stack (Me	ter) :	275	
6	Diameter of Stack (f	Meter) :	7.4	
7	Type of Fuel	:	Coal	
8	Flue Gas Temperatur	re ( <sup>o</sup> C)	122	
9	Flue Gas Velocity (M	/sec) :	22.37	
10	Flow of Exit Gas at N	NTP (NM <sup>3</sup> /Hr) :	2514232	

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	41.9
0	\$0.	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	916.6
٢	302	1985	80.2	TPD	55.3
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	262,2
* ResL	ilts are corrected with 6% ox	vgen	· · · · ·		mental Labo

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7,8/F01

TC519320000000533F		Date: 30.05.2020	
	TEST	T REPORT	
Issued To:	APML,Plot No. A -1, Tir Dist. Gondia - 441 911	rora Growth Centre, MIDC – Tirora, I	
Sample Particulars :	Stack Monitoring		
Sample Collected by :	Environment Dept. AP	PML	
1 Sampling Location	:	Unit -5	
2 Date of Sampling	:	28.05.2020	
3 Time of Sampling	:	11:55 AM	
4 Load (MW)	:	444	
5 Height of Stack (Me	eter) :	275	
6 Diameter of Stack (	Meter) :	7.4	
7 Type of Fuel	:	Coal	
8 Flue Gas Temperatu	re ( <sup>0</sup> C) :	124	
9 Flue Gas Velocity (N	N/sec) :	23.27	
10 Flow of Exit Gas at I	NTP (NM <sup>3</sup> /Hr) :	2602420	

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	39.0
2	50	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	902.2
۷	302	1985	80.2	TPD	56.3
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	244.4

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL:TC51932000000511F

Date: 31.05.2020

lssued To:	APML,Plot No. A -1, Tirora Gi	rowth Centre, MIDC - Tirora, Dist, C	Sondia – 441 911
Sample Collection Date	13.05.2020	Analysis Starting Date	13.05.2020
Quantity received	3 Lit /Sample	Sampled by	Environment Dept. APML

### TEST REPORT

1					Re	sults
Sr no	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	8.1	7.7
2	TSS	mg / i	APHA-23rd - 2540 D	100	36	42
3	TDS	mg / I	APHA-23rd - 2540 C	2100	363	251
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	250	69	58
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	22	25
6	Oil & Grease	mg / I	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	1.1

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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4. # Indicates this parameter is not covered in our NABL scope



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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL:TC51932000000509F

Date: 31,05,2020

lssued To:	APML,Plot No. A -1, Tirora Grov	vth Centre, MIDC – Tirora, Dist, (	Jondia – 441 911
Sample Collection Date	13.05.2020	Analysis Starting Date	13.05.2020
Quantity received	3 Lit /Sample	Sampled by	Environment Dept,
Sample Particulars : Treat	ed Waste Water		
Location of sample : STP -	1 & 2 Out Let		

#### TEST REPORT

Sr	Parameter	Unit	Test Methods	MPCB Standards	Res	ults
٥n	(NABL SCOPE)				STP-1	STP-2
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	7.5	7.7
2	TSS	mg / I	APHA-23rd - 2540 D	500	19	36
3	TDS	mg / I	APHA-23rd - 2540 C	2100	294	271
4	COD	mg/l	APHA-23rd Ed 2017- 5220B Open Reflux Method	100	50	40
5	BOD at 27 <sup>0</sup> C for 3 days	mg / F	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	18	15

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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4. # Indicates this parameter is not covered in our NABL scope

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL: TC519320000000507F

Date: 31.05.2020

Sample Collection Date	13.05.2020	Analysis Starting Date	;	13.05.2020
Quantity received	1 Ltr / Sample	Sampled by	:	Environment Dept. APMI

#### TEST REPORT

	Parameter			MADCB			Results		
Srno	(NABL SCOPE)	Unit	Test Methods	Standards	U#1	U # 2	U # 3	U#4	U # 5
1	Free Available Chlorine	mg/l	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5	0.1	0.1	0.1	0.2	0.2
2	Phosphate as (PO4)	mg/l	APHA-23rd -4500- P D Stannous Chloride Method	5	2.2	3.1	3.7	2.9	1.9
3	Zinc as (Zn)	mg/l		1	BDL	BOL	BDL	BDL	BDL
4	Total Chromium as (Cr)	mg/l		0.2	BDL	BDL	BDL	BDL	BDL

\*\*\*End of the Report\*\*\*

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL NO :TC519320000000506F

Date: 31.05.2020

Issued To:	APML,Plot No. A -1, Tiro	ora Growth Centre, MIDC - Tirora, I	Dist. Gondia - 441 911
Sample Collection Date	13.05.2020	Analysis Starting Date :	13.05.2020
Quantity received	1 Ltr / Sample	Sampled by :	Environment Dept. APML
Sample Particulars : 0	ondenser Cooling Water	(Waste Water)	L
Location of sample : U	nit1,Unit-2,Unit-3,Unit-4	& Unit-5	

#### **TEST REPORT**

Sr	Parameter	Lloit	Toct Mathods	MPCB			Results		
no	Farameter	Unic	Test Methous	Standards	U#1	U # 2	U # 3	U#4	U#5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5	7.6	7.8	7.7	7.8	7.5
2	Temperature	Deg C	APHA-23rd - 2550 B		35	34	34	34	34
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5	0.2	0.2	0.2	0.1	0.1

#### \*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### URL: TC51932000000627F

#### Format No: APML/ENV-LB/7.8/F01 30.06.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora	a Growth Centre, MIDC – Tirora,	Dist. (	Gondia - 441 911			
Sample Collection Date	03.06.2020	Analysis Starting Date	:	03.06.2020			
Quantity received	1 Ltr / Sample	Sampled by	:	Environment Dept. APML			
Sample Particulars : Boiler blowdown (Waste Water)							
Location of sample : Unit-1 & Unit-5							

#### TEST REPORT

	Dacameter		MPCB		Res	ults
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 5
1	TSS	mg / I	APHA-22nd - 2540 D	100	5.0	7.0
2	Oil & Grease	mg / I	APHA-22nd Ed 2012- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	BDL
3	Copper (Total)	mg/l		1	BDL	BDL
4	Iron (Total)	mg/i	APHA-22nd- 3500-Fe-B	1	BDL	BDL

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format No: APML/ENV-LB/7.8/F01

TC-5193

URL: TC519320000000611F	Date:	30.06.2020		
Issued To:	APML,Plot No. A -1, Tirora G	rowth Centre, MIDC – Tirora, Dist.		11
Sample Collection Date	10.06.2020	Analysis Starting Date	10.0	06.2020
Quantity received	3 Lit /Sample	Sampled by	Environme	ent Dept. APML
Sample Particulars : Treat	ed Effluent Water			
Location of sample : DM PI	ant N-Pit , ETP Outlet			

#### TEST REPORT

	Descention				Res	ults
Sr no	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet
1	pH Value		APHA-23rd -4500- H+B Electrometric <b>5.5-9.0</b> Method		7.5	7.8
2	TSS	mg / I	APHA-23rd - 2540 D	100	14	45
3	TDS	mg / I	APHA-23rd - 2540 C	2100	308	283
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	250	20	50
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	7	14
6	Oil & Grease	mg/l	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	0.4

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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4. # Indicates this parameter is not covered in our NABL scope

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(Technical Manager)

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# adani environmental laboratory (Accredited by NABL)

## ADANI POWER MAHARASHTRA LIMITED, TIRODA

#### Format No: APML/ENV-LB/7.8/F01

TC-5193

URL:TC5193200000006098	RL:TC51932000000609F							
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911								
Sample Collection Date	10.06.2020	Analysis Starting Date	10.06.2020					
Quantity received	3 Lit /Sample	Sampled by	Environment Dept.					
Sample Particulars : Treated Waste Water								
-ocation of sample:STP -1 & 2 Out Let								

#### TEST REPORT

Sr	Sr Parameter	Unit	Test Methods	MPCB Standards	Results		
no	(NABL SCOPE)			STP-1	STP-2		
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	7.2	7.3	
2	TSS	mg / I	APHA-23rd - 2540 D	500	38	33	
3	TDS	mg / I	APHA-23rd - 2540 C	2100	358	215	
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	100	40	48	
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	17	14	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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

The sample will be destroyed after retention time unless otherwise appendix of the second seco

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL NO :TC51932000000606F

Date: 30.06.2020

issued To:	APML,Plot No. A -1, Tiror	a Growth Centre, MIDC – Tirora, D	ist. Gondia - 441 911					
Sample Collection Date	10.06.2020	Analysis Starting Date :	10.06.2020					
Quantity received	1 Ltr / Sample	Sampled by :	Environment Dept. APML					
Sample Particulars : Condenser Cooling Water (Waste Water)								
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5								

#### **TEST REPORT**

Sr	Parameter	Lloit	Tost Mathada	МРСВ			Results		
по	Farameter	Onic	Test Methods	Standards	U # 1	U # 2	U#3	U#4	U#5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5		7.6	7.5	7.4	
2	Temperature	Deg C	APHA-23rd - 2550 B		UNIT UNDER SHUT DOWN	33	33	34	UNIT UNDER SHUT DOWN
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5		0.1	0.1	0.2	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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

- TC 5490 2. The sample will be destroyed after retention time unless otherwise specified specially. Multicard
- 3. This report is not to be reproducing wholly or in part, and can't be used as evidence a court of law

aharasht 6/20 Authorized Signatory (Technical Manager)

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL: TC51932000000607F

30.06.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911								
Sample Collection Date	10.06.2020	Analysis Starting Date	:	10.06.2020					
Quantity received	1 Ltr / Sample	Sampled by	;	Environment Dept. APML					
Sample Particulars : Cooling tower blowdown (Waste Water)									
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5.									

#### TEST REPORT

	Decemeter			MDCB	Results				
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 2	U # 3	U#4	U # 5
1	Free Available Chlorine	mg/l	APHA-23rd - 4500-Cl G, DPD Colorimetric Method	0.5		0.2	0.2	0.3	UNIT UNDER SHUT DOWN
2	Phosphate as (PO4)	mg/I	APHA-23rd -4500- P D Stannous Chloride Method	5	UNIT UNDER	2,1	2.7	3.1	
3	Zinc as (Zn)	mg/l		1	SHUT DOWN	BDL	BDL	BDL	
4	Total Chromium as (Cr )	mg/l		0.2		BDL	BDL	BDL	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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mental Lan TC - 5193 \* (NABL Certific Sho Maharashu 20 Authorized Signator (Technical Manager)

# adani environmental laboratory

(Accredited by NABL)

### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No: TC51932000000601F

Date 30.06.2020

Issued To:		APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911								
Sample Particulars :		Ambient Air Quality ( Plant )								
San	ple Collected by :	Environment	Environment Dept. APML							
			Test	Report						
			0	-	Par	ameters				
Station	Sampling Location	Sampling	Analysis Starting	PM 10	PM 2.5	S02	NOx			
		Date	Date	µg/m3	µg/m3	µg/m3	µg/m3			
		01.06.2020	02.06.2020	64.2	27.5	8.6	15.6			
		05.06.2020	06.06,2020	61.3	23.0	5.1	12.0			
		08.06.2020	09.06.2020	65.2	25.9	5,9	10.8			
		12.06.2020	13.06.2020	35.0	13.4	7,6	13.2			
AAQ 1	Near AWRS	15.06.2020	16.06.2020	41.0	17.4	6,5	17.4			
		19.06.2020	20.06.2020	63,6	20.2	8.0	16.2			
		22.06.2020	23.06.2020	62.0	28.0	6.3	15.0			
		26.06.2020	24.06.2020	72.4	33.4	10.8	19.2			
		29.06.2020	30.06.2020	49.2	13.2	9,2	18.0			
		01.06.2020	02.06.2020	42.8	20.3	7.8	12.0			
		05.06.2020	06.06.2020	54.8	25.0	9.8	16.2			
		08.06.2020	09.06.2020	64.9	22,9	7.0	13.8			
		12.06.2020	13.06.2020	59.8	21.4	6.1	10.8			
AAQ 2	Near Brick Plant	15.06.2020	16.06.2020	57,4	17.8	10.4	15.0			
		19.06.2020	20.06.2020	48.6	15.9	6.5	11.4			
		22.06.2020	23.06.2020	39.1	16.8	8.0	14.4			
		26.06.2020	24.06.2020	62.5	25.9	9.2	13.8			
		29.06.2020	30.06.2020	47.6	18.7	5.1	10,2			
		01.06.2020	02.06.2020	57.5	16.9	7.0	14.4			
		05.06.2020	06.06.2020	62.7	25.2	11.0	18.0			
		08.06.2020	09.06,2020	52.0	19.1	8.0	11.4			
		12.06.2020	13.06.2020	35.4	11.2	10.0	17.4			
AAQ 3	China Colony	15.06.2020	16.06.2020	56,4	11.9	12,1	16.2			
		19.06.2020	20.06.2020	48.0	18.3	6.5	12.0			
		22.06.2020	23.06.2020	33.1	13,3	11.2	16.2			
		26.06.2020	24.06.2020	66.0	20.6	10.4	26.5			
		29.06.2020	30.06.2020	45.4	15.6	8.8	10.8			
NAAQMS Standard				100	60	-80	80			

#### \*\*\*End of the Report\*\*\*

Envy Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NAAQMS Note:

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

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

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(Technical Manager)

# adani Environmental Laboratory

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No. : URLTC51932000000623F

#### Date: 30.06.2020

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC Tirora, Dist. Gondia 441 911
Sample Particulars :	Ambient Noise Level (Plant)
Sample Collected by :	Environment Dept. APML
Date of Sampling:	20.06.2020

#### Test Report

S. No	Locations	Day Time in dB (A) (6.00 a.m. to 10.00 p.m.)	Night Time in dB (A) (10.00 p.m. to 06.00 a.m.)	
I				
1	Near Shanti Niketan I II & III	57.7	47.3	
2	Near Labour Hutment	62.8	55.4	
3	Near Store Area	68.2	51.1	
4	Gate No.1	55,2	49.0	
5	Gate No.2	66.1	58.3	
6	Gate No.3	71.2	56.7	
7	Near OHC	56.0	48.8	
8	Railway Siding	67.3	60.5	
9	Near Reservoir 2	59.7	48.5	
10	Near Ash Water Recovery Pump House	61.5	50.4	
11	In China Colony	41.1	38.5	
	CPCB Standards (Industrial Area)	75	70	

\*\*\* End Of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB / CPCB.

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC51932000000628F				Date:	13.06.2020		
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911					ora,		
S	ample Particulars :	Stack Monitoring					
Sa	mple Collected by :	Environment Depl	ivironment Dept. APML				
1	Sampling Location	:	Uni	t -2			
2	Date of Sampling	:	: 11.06.2020				
3	Time of Sampling	:	12:15	5 PM			
4	Load (MW)	:	60	06			
5	Height of Stack (Me	ter) :	27	275			
6	Diameter of Stack (	Neter) :	7.	7.4			
7	Type of Fuel	:	Co	bal			
8	Flue Gas Temperatu	re ( <sup>0</sup> C) :	12	24			
9	9 Flue Gas Velocity (M/sec) : 22			.97			
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :		NTP (NM³/Hr) :	2568	8194			
	r						
6			1				

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	42.2
2	SO2	IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	937.9
		1985	75.2	TPD	57.4
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	268.3

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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Page **1** of **1** 

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000629F	=		Date: 13.06.2020			
Issued To:	DC – Tirora,					
Sample Particulars :	Stack Monitoring	Stack Monitoring				
Sample Collected by :	Environment Dept. A	PML				
1 Sampling Location	:	Unit -3				
2 Date of Sampling	:	11.06.2020				
3 Time of Sampling	:	11:40 AM				
4 Load (MW)	:	: 590				
5 Height of Stack (M	eter) :	275				
6 Diameter of Stack	(Meter) :	7.4				
7 Type of Fuel	:	Coal				
8 Flue Gas Temperat	ure ( <sup>o</sup> C) :	126				
9 Flue Gas Velocity (	M/sec) :	23,55				
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :		2620521				

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm³	43.0
2	SO2	IS 11255 (Part 2)	1292	Mg/Nm³	947.3
		1985	80.2	TPD	58.4
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm³	280.9

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC51932000000630F				Date: 13	.06.2020	
	TEST REPORT					
Issued To: APML,Plot No. A -1, Tirora Growth Centre, Dist. Gondia – 441 911				ntre, MIDC – Tirora	1	
S	ample Particulars :	Stack Monitoring				
Sa	mple Collected by :	Environment Dept	. APML			
1	Sampling Location	:	Uni	t -4		
2	Date of Sampling	:	11.06	2020		
3	Time of Sampling	:	10:30	D AM		
4	Load (MW)	: 590				
5	Height of Stack (Me	ter) :	275			
6	Diameter of Stack (A	Aeter) :	7.4			
7	Type of Fuel	:	Co	al		
8	Flue Gas Temperatu	re ( <sup>0</sup> C) :	11	9		
9 Flue Gas Velocity (M/sec) : 23.92			92			
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :			2709	9417		
Sr,	Test Parameters	Test Method	MPCB Standards	Units	Results	

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	39.5
2	SO₂	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	941.6
		1985	80.2	TPD	61.2
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	265.7

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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

mentel \* TC - 5193 ACL Contificate Ma rashtra 100 Authorized Signatory (Technical Manager)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### URL: TC51932000000627F

#### Format No: APML/ENV-LB/7.8/F01 30.06.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911						
Sample Collection Date	03.06.2020	Analysis Starting Date	:	03.06.2020			
Quantity received	1 Ltr / Sample	Sampled by		Environment Dept. APML			
Sample Particulars : Boiler blowdown (Waste Water)							
Location of sample : Unit-1 & Unit-5							

#### TEST REPORT

	Dacameter			MDCR	Results		
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 5	
1	TSS	mg / I	APHA-22nd - 2540 D	100	5.0	7.0	
2	Oil & Grease	mg / I	APHA-22nd Ed 2012- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	BDL	
3	Copper (Total)	mg/l		1	BDL	BDL	
4	Iron (Total)	mg/i	APHA-22nd- 3500-Fe-B	1	BDL	BDL	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format No: APML/ENV-LB/7.8/F01

TC-5193

URL: TC519320000000611F	Date:	30.06.2020			
Issued To:	APML,Plot No. A -1, Tirora G	rowth Centre, MIDC – Tirora, Dist.		11	
Sample Collection Date	10.06.2020	Analysis Starting Date	nalysis Starting Date 10.06.2020		
Quantity received	3 Lit /Sample	Sampled by	Environment Dept. APML		
Sample Particulars : Treat	ed Effluent Water				
Location of sample : DM PI	ant N-Pit , ETP Outlet				

#### TEST REPORT

					Results		
Sr no	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet	
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	7.5	7.8	
2	TSS	mg / I	APHA-23rd - 2540 D	100	14	45	
3	TDS	mg / I	APHA-23rd - 2540 C	2100	308	283	
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	250	20	50	
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	7	14	
6	Oil & Grease	mg/l	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	0.4	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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

4. # Indicates this parameter is not covered in our NABL scope

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(Technical Manager)

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# adani environmental laboratory (Accredited by NABL)

## ADANI POWER MAHARASHTRA LIMITED, TIRODA

#### Format No: APML/ENV-LB/7.8/F01

TC-5193

URL:TC5193200000006098	F		Date: 30.06.2020				
Issued To:	APML,Plot No. A -1, Tirora Growt	h Centre, MIDC – Tirora, Dist.	Gondia - 441 911				
Sample Collection Date	10.06.2020	Analysis Starting Date	10.06.2020				
Quantity received	3 Lit /Sample	Sampled by	Environment Dept.				
Sample Particulars : Treated Waste Water							
Location of sample : STP -1 & 2 Out Let							

#### TEST REPORT

Sr	Sr Parameter Unit Test Method		Test Methods	MPCB Standards	Results		
no	(NABL SCOPE)				STP-1	STP-2	
1	pH Value		APHA-23rd -4500- H+B Electrometric Method	5.5-9.0	7.2	7.3	
2	TSS	mg / I	APHA-23rd - 2540 D	500	38	33	
3	TDS	mg / I	APHA-23rd - 2540 C	2100	358	215	
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	100	40	48	
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	17	14	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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

The sample will be destroyed after retention time unless otherwise appendix of the second seco

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL NO :TC51932000000606F

Date: 30.06.2020

issued To:	APML,Plot No. A -1, Tiror	a Growth Centre, MIDC – Tirora, D	ist. Gondia - 441 911					
Sample Collection Date	10.06.2020	Analysis Starting Date :	10.06.2020					
Quantity received	1 Ltr / Sample	Sampled by :	Environment Dept. APML					
Sample Particulars : Condenser Cooling Water (Waste Water)								
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5								

#### **TEST REPORT**

Sr	Parameter	Lloit	Tost Mathada	МРСВ	Results				
по	Farameter	Onic	Test Methods	Standards	U # 1	U # 2	U#3	U#4	U#5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5		7.6	7.5	7.4	
2	Temperature	Deg C	APHA-23rd - 2550 B		UNIT UNDER SHUT DOWN	33	33	34	UNIT UNDER SHUT DOWN
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5		0.1	0.1	0.2	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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- TC 5490 2. The sample will be destroyed after retention time unless otherwise specified specially. Multicard
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aharasht 6/20 Authorized Signatory (Technical Manager)

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL: TC51932000000607F

30.06.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911							
Sample Collection Date	10.06.2020	Analysis Starting Date	:	10.06.2020				
Quantity received	1 Ltr / Sample	Sampled by	;	Environment Dept. APML				
Sample Particulars : Cooling tower blowdown (Waste Water)								
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5.								

#### TEST REPORT

	Decemeter			MDCB			Results		
Sr no	(NABL SCOPE)	Unit	Test Methods	t Methods Standards		U # 2	U # 3	U#4	U # 5
1	Free Available Chlorine	mg/l	APHA-23rd - 4500-Cl G, DPD Colorimetric Method	0.5		0.2	0.2	0.3	
2	Phosphate as (PO4)	mg/I	APHA-23rd -4500- P D Stannous Chloride Method	5	UNIT UNDER	2,1	2.7	3.1	UNIT UNDER
3	Zinc as (Zn)	mg/l		1	SHUT DOWN	BDL	BDL	BDL	SHUT DOWN
4	Total Chromium as (Cr )	mg/l		0.2		BDL	BDL	BDL	

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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# adani environmental laboratory

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### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No: TC51932000000601F

Date 30.06.2020

Issued To:		APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911								
Sai	mple Particulars :	Ambient Air Quality (Plant)								
San	ple Collected by :	Environment Dept. APML								
			Test	Report						
			0	-	Par	ameters				
Station	Sampling Location	Sampling	Analysis Starting	PM 10	PM 2.5	S02	NOx			
		Date	Date	µg/m3	µg/m3	µg/m3	µg/m3			
		01.06.2020	02.06.2020	64.2	27.5	8.6	15.6			
		05.06.2020	06.06,2020	61.3	23.0	5.1	12.0			
		08.06.2020	09.06.2020	65.2	25.9	5,9	10.8			
		12.06.2020	13.06.2020	35.0	13.4	7,6	13.2			
AAQ 1	Near AWRS	15.06.2020	16.06.2020	41.0	17.4	6,5	17.4			
		19.06.2020	20.06.2020	63,6	20.2	8.0	16.2			
		22.06.2020	23.06.2020	62.0	28.0	6.3	15.0			
		26.06.2020	24.06.2020	72.4	33.4	10.8	19.2			
		29.06.2020	30.06.2020	49.2	13.2	9,2	18.0			
		01.06.2020	02.06.2020	42.8	20.3	7.8	12.0			
		05.06.2020	06.06.2020	54.8	25.0	9.8	16.2			
		08.06.2020	09.06.2020	64.9	22,9	7.0	13.8			
		12.06.2020	13.06.2020	59.8	21.4	6.1	10.8			
AAQ 2	Near Brick Plant	15.06.2020	16.06.2020	57,4	17.8	10.4	15.0			
		19.06.2020	20.06.2020	48.6	15.9	6.5	11.4			
		22.06.2020	23.06.2020	39.1	16.8	8.0	14.4			
		26.06.2020	24.06.2020	62.5	25.9	9.2	13.8			
		29.06.2020	30.06.2020	47.6	18.7	5.1	10,2			
		01.06.2020	02.06.2020	57.5	16.9	7.0	14.4			
		05.06.2020	06.06.2020	62.7	25.2	11.0	18.0			
		08.06.2020	09.06,2020	52.0	19.1	8.0	11.4			
		12.06.2020	13.06.2020	35.4	11.2	10.0	17.4			
AAQ 3	China Colony	15.06.2020	16.06.2020	56,4	11.9	12,1	16.2			
		19.06.2020	20.06.2020	48.0	18.3	6.5	12.0			
		22.06.2020	23.06.2020	33.1	13,3	11.2	16.2			
		26.06.2020	24.06.2020	66.0	20.6	10.4	26.5			
		29.06.2020	30.06.2020	45.4	15.6	8.8	10.8			
	NAAQMS St	andard		100	60	-80	80			

#### \*\*\*End of the Report\*\*\*

Envy Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NAAQMS Note:

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(Technical Manager)

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL No. : URLTC51932000000623F

#### Date: 30.06.2020

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC Tirora, Dist. Gondia 441 911
Sample Particulars :	Ambient Noise Level (Plant)
Sample Collected by :	Environment Dept. APML
Date of Sampling:	20.06.2020

#### Test Report

S. No	Locations	Day Time in dB (A) (6.00 a.m. to 10.00 p.m.)	Night Time in dB (A) (10.00 p.m. to 06.00 a.m.)
I			
1	Near Shanti Niketan I II & III	57.7	47.3
2	Near Labour Hutment	62.8	55.4
3	Near Store Area	68.2	51.1
4	Gate No.1	55,2	49.0
5	Gate No.2	66.1	58.3
6	Gate No.3	71.2	56.7
7	Near OHC	56.0	48.8
8	Railway Siding	67.3	60.5
9	Near Reservoir 2	59.7	48.5
10	Near Ash Water Recovery Pump House	61.5	50.4
11	In China Colony	41.1	38.5
	CPCB Standards (Industrial Area)	75	70

\*\*\* End Of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB / CPCB.

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC51932000000628F			Date:	13.06.2020			
	Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911						
Sample Particulars : Stack Monitoring							
Sample Collected by : Environment Dept. APML							
1	Sampling Location	:	Uni	t -2			
2	Date of Sampling	:	11.06	2020			
3	Time of Sampling	:	12:15	5 PM			
4	Load (MW)	:	60	06			
5	Height of Stack (Me	ter) :	27	275			
6	Diameter of Stack (	Neter) :	7.	.4			
7	Type of Fuel	:	Co	bal			
8	Flue Gas Temperatu	re ( <sup>0</sup> C) :	12	24			
9	Flue Gas Velocity (N	N/sec) : 22.97					
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :			2568	8194			
	r						
6			1				

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	50 Mg/Nm <sup>3</sup>	
2	50-	IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	937.9
	302	1985	75.2	TPD	57.4
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	268.3

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

Note Tested results are well within the permissible limits of MPCB.

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Page **1** of **1** 

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC519320000000629F			Date: 13.06.2020				
Issued To:	APML,Plot No. A -1, T Dist. Gondia – 441 9'	irora Growth Centre, MI 11	DC – Tirora,				
Sample Particulars :	Stack Monitoring	Stack Monitoring					
Sample Collected by :	Environment Dept. A	Environment Dept. APML					
1 Sampling Location	:	Unit -3					
2 Date of Sampling	:	11.06.2020					
3 Time of Sampling	:	11:40 AM					
4 Load (MW)	:	590					
5 Height of Stack (M	eter) :	275					
6 Diameter of Stack	(Meter) :	7.4					
7 Type of Fuel	:	Coal					
8 Flue Gas Temperat	ure ( <sup>0</sup> C) :	126					
9 Flue Gas Velocity (	M/sec) :	23,55					
10 Flow of Exit Gas at	NTP (NM <sup>3</sup> /Hr) :	2620521					
		· · ·					

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm³	43.0
2	50	IS 11255 (Part 2)		Mg/Nm³	947.3
	302	1985	80.2	TPD	58.4
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	280.9

\* Results are corrected with 6% oxygen

#### \*\*\*End of the Report\*\*\*

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Page 1 of 1

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## ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

TC5	19320000000630F		Date: 13	.06.2020			
		Т	EST REPORT				
	lssued To:	APML,Plot No. A -1 Dist. Gondia - 441	l, Tirora Growth Cei 911	ntre, MIDC – Tirora	1		
S	ample Particulars :						
Sample Collected by : Environment Dept. APML							
1	1 Sampling Location : Unit -4						
2	Date of Sampling	:	11.06	2020			
3	Time of Sampling	:	10:30	MA O			
4	Load (MW)	:	59	90			
5 Height of Stack (Meter) :			275				
6	Diameter of Stack (A	Aeter) :	7.	4			
7	Type of Fuel	:	Co	Coal			
8	Flue Gas Temperatu	re ( <sup>0</sup> C) :	119				
9 Flue Gas Velocity (M/sec) :			23.92				
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) :			2709	9417			
Sr,	Test Parameters	Test Method	MPCB Standards	Units	Results		

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	39.5
2	SO2	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	941.6
		1985	80.2	TPD	61.2
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	265.7

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

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# adani environmental laboratory

(Accredited by NABL)

### ADANI POWER MAHARASHTRA LIMITED, TIRODA



#### Format No: APML/ENV-LB/7.8/F01

#### URL NO :TC51932000000805F

Date: 31.08.2020

Issued To:	APML,Plot No. A -1, Tiro	ra Growth Centre, MIDC – Tiro	ra, Di	ist. Gondia – 441 911				
Sample Collection Date	12.08.2020	Analysis Starting Date	:	12.08.2020				
Quantity received	1 Ltr / Sample	Sampled by	:	Environment Dept. APML				
Sample Particulars : Condenser Cooling Water (Waste Water)								
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5								

#### TEST REPORT

Sr	Parameter	Unit	Test Methode	MPCB			Results		
no	Farameter	Unit	rest methods	Standards	U # 1	U # 2	U # 3	U # 4	U # 5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5		7.9	8.1		
2	Temperature	Deg C	APHA-23rd - 2550 B		UNIT UNDER SHUT DOWN	33	32	UNIT UNDER SHUT DOWN	UNIT UNDER SHUT DOWN
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5		0.1	0.1		

\*\*\*End of the Report\*\*\*

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#### Format No: APML/ENV-LB/7.8/F01

URL: TC51932000000806F

31.08.2020 Date:

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911						
Sample Collection Date	12.08.2020	Analysis Starting Date	12.08.2020				
Quantity received	1 Ltr / Sample	Sampled by :		Environment Dept. APML			
Sample Particulars : Cooling tower blowdown (Waste Water)							
Location of sample : Unit1,Unit-2,Unit-3,Unit-4 & Unit-5.							

#### TEST REPORT

	Deremotor			MDCD			Results		
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 2	U # 3	U # 4	U # 5
1	Free Available Chlorine	mg/l	APHA-23rd – 4500- Cl G, DPD Colorimetric Method	0.5		0.2	0.2		
2	Phosphate as (PO4)	mg/l	APHA-23rd -4500-P D Stannous Chloride Method	5	UNIT UNDER	0.5	0.9	UNIT UNDER	UNIT UNDER
3	Zinc as (Zn)	mg/l		1	SHUT DOWN	BDL	BDL	SHUT DOWN	SHUT DOWN
4	Total Chromium as (Cr )	mg/l		0.2		BDL	BDL		

\*\*\*End of the Report\*\*\*

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**Authorized Signatory** (Technical Manager)
# adani **ENVIRONMENTAL LABORATORY**

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format No: APML/ENV-LB/7.8/F01

TC-5193

JRL: TC519320000000807F	Date:	31.08.2020		
Issued To:	APML,Plot No. A -1, Tirora G	rowth Centre, MIDC – Tirora, Dist. C	Gondia – 441 911	
Sample Collection Date	12.08.2020	Analysis Starting Date	12.0	8.2020
Quantity received	3 Lit /Sample	Sampled by	Environme	nt Dept. APML
Sample Particulars : Treat	ed Effluent Water			
Location of sample : DM PI	ant N-Pit , ETP Outlet			

### TEST REPORT

		Demonstration			Results	
Srno	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet
1	pH Value		APHA-23rd -4500-H+B Electrometric Method	5.5-9.0	8.1	7.8
2	TSS	mg / l	APHA-23rd - 2540 D	100	31	34
3	TDS	mg / I	APHA-23rd - 2540 C	2100	354	204
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	250	40	48
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 °C	30	16	25
6	Oil & Grease	mg / l	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10	BDL	3.000

\*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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4. # Indicates this parameter is not covered in our NABL scope



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# ADANI POWER MAHARASHTRA LIMITED, TIRODA

### Format No: APML/ENV-LB/7.8/F01

TC-5193

JRL: TC519320000000809	F		Date: 31.08.2020
Issued To:	APML,Plot No. A -1, Tirora G	rowth Centre, MIDC – Tirora, Dist.	Gondia – 441 911
Sample Collection Date	12.08.2020	Analysis Starting Date	12.08.2020
Quantity received	3 Lit /Sample	Sampled by	Environment Dept.
Sample Particulars : Trea	ted Waste Water		<u>.                                    </u>
_ocation of sample:STP	-1 & 2 Out Let		

### **TEST REPORT**

Sr	Parameter	Unit	Test Methods	MPCB Standards	Results	
no	(NABL SCOPE)				STP-1	STP-2
1	pH Value		APHA-23rd -4500-H+B Electrometric Method	5.5-9.0	7.5	7.4
2	TSS	mg / I	APHA-23rd - 2540 D	500	26	18
3	TDS	mg / I	APHA-23rd - 2540 C	2100	207	197
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	100	50	60
5	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 27 ℃	30	22	24

\*\*\*End of the Report\*\*\*

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4. # Indicates this parameter is not covered in our NABL scope

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA

### Format No: APML/ENV-LB/7.8/F01

#### Date: 31.08.2020

Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911
Sample Particulars :	Ambient Noise Level (Plant)
Sample Collected by :	Environment Dept. APML
Date of Sampling:	21.08.2020

## Test Report

S. No	Locations	Day Time in dB (A) (6.00 a.m. to 10.00 p.m.)	Night Time in dB (A) (10.00 p.m. to 06.00 a.m.)
1	Near Shanti Niketan I II & III	42.9	40.0
2	Near Labour Hutment	63.8	57.2
3	Near Store Area	63.1	58.4
4	Gate No.1	57.7	52.0
5	Gate No.2	58.1	51.1
6	Gate No.3	60.7	53.3
7	Near OHC	60.6	56.4
8	Railway Siding	65.6	60.4
9	Near Reservoir 2	55.0	50.7
10	Near Ash Water Recovery Pump House	52.1	49.4
11	In China Colony	39.7	37.7

#### \*\*\* End Of the Report\*\*\*

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Note: Tested results are well within the permissible limits of MPCB / CPCB.

CPCB Standards (Industrial Area)

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ENVIRONMENTAL LABORATORY (Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



### URL No: TC51932000000801F

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Date 01.09.2020

	Issued To:	APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911							
Sa	mple Particulars :	Ambient Air Quality ( Plant )							
Sample Collected by :		Environment Dept. APML							
			Test	Report					
			Analysis		Pa	rameters			
Station	Sampling Location	Sampling	Starting	PM 10	PM 2.5	SO2	NOx		
		Date	Date	µg/m3	µg/m3	µg/m3	μg/m3		
		03.08.2020	04.08.2020	19.4	10.6	9.6	12.0		
		07.08.2020	08.08.2020	29.1	14.5	11.7	16.2		
		10.08.2020	11.08.2020	24.7	12.7	7.6	12.6		
		13.08.2020	14.08.2020	20.8	16.9	8.2	11.4		
AAQ 1	Near AWRS	17.08.2020	18.08.2020	24.9	19.6	10.0	13.8		
		20.08.2020	21.08.2020	25.5	15.8	6.7	16.2		
		24.08.2020	25.08.2020	24.7	17.3	9.4	13.2		
		29.08.2020	30.08.2020	22.4	14.4	8.0	11.4		
		31.08.2020	01.09.2020	21.5	12.3	7.6	9.6		
		03.08.2020	04.08.2020	22.9	11.5	7.8	14.4		
		07.08.2020	08.08.2020	25.6	16.8	6.7	12.6		
		10.08.2020	11.08.2020	26.5	15.5	8.6	11.4		
		13.08.2020	14.08.2020	23.9	17.2	9.0	13.2		
AAQ 2	Near Brick Plant	17.08.2020	18.08.2020	28.7	14.8	5.7	12.0		
		20.08.2020	21.08.2020	27.3	16.7	7.4	15.6		
		24.08.2020	25.08.2020	30.8	17.3	9.2	16.2		
		29.08.2020	30.08.2020	29.2	23.1	8.4	10.8		
		31.08.2020	01.09.2020	37.9	22.5	10.6	15.0		
		03.08.2020	04.08.2020	24.1	18.1	8.6	15.6		
		07.08.2020	08.08.2020	28.7	19.5	7.2	14.4		
		10.08.2020	11.08.2020	31.8	23.9	6.5	15.6		
		13.08.2020	14.08.2020	29.9	12.7	8.0	16.8		
AAQ 3	China Colony	17.08.2020	18.08.2020	30.2	26.5	5.9	13.2		
		20.08.2020	21.08.2020	22.2	15.8	6.1	12.6		
		24.08.2020	25.08.2020	28.9	17.6	8.4	17.4		
		29.08.2020	30.08.2020	27.9	12.4	9.2	15.0		
		31.08.2020	01.09.2020	30.0	13.8	11.0	18.0		
	NAAQMS Standard				60	80	80		

### \*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NAAQMS

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# adani **ENVIRONMENTAL LABORATORY**

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



# Format No: APML/ENV-LB/7.8/F01

TC51	932000000828F		Date: 24.08.2020		
	Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911				
Sa	mple Particulars :	Stack Monitoring			
San	Sample Collected by : Environment Dept. APML				
1 \$	Sampling Location	:	Unit -2		
2 [	Date of Sampling	:	20.08.2020		
3	Time of Sampling	: 11:40 AM			
4 1	Load (MW)	:	655		
5 I	Height of Stack (Met	er) :	275		
6 I	Diameter of Stack (N	leter) :	7.4		
7	Type of Fuel	: Coal			
8	<sup>-</sup> lue Gas Temperature ( <sup>0</sup> C) : 1:		125		
91	Flue Gas Velocity (M	1/sec) : 22.86			
10	Flow of Exit Gas at N	ITP (NM <sup>3</sup> /Hr) :	2550508		

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	44.7
2 50	50.	IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	959.2
2	002	1985	75.2	TPD	56.5
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	275.0

\* Results are corrected with 6% oxygen

### \*\*\*End of the Report\*\*\*

Note: Tested results are well within the permissible limits of MPCB.

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# adani Environmental Laboratory (Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



## Format No: APML/ENV-LB/7.8/F01

TC51932000000829F		Date: 24.08.2020	
APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911			
Sample Particulars :	Stack Monitoring		
Sample Collected by :	Environment Dept. AP	ML	
1 Sampling Location	:	Unit -3	
2 Date of Sampling	:	20.08.2020	
3 Time of Sampling	:	12:26 PM	
4 Load (MW)	:	650	
5 Height of Stack (Me	ter) :	275	
6 Diameter of Stack (	Meter) :	7.4	
7 Type of Fuel	:	Coal	
8 Flue Gas Temperat	ure ( <sup>0</sup> C) :	126	
9 Flue Gas Velocity (I	Flue Gas Velocity (M/sec) : 23.09		
10 Flow of Exit Gas at	NTP (NM <sup>3</sup> /Hr) :	2568814	

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	РМ	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	43.2
	50	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	982.1
2	302	1985	80.2	TPD	57.8
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	290.8

\* Results are corrected with 6% oxygen

### \*\*\*End of the Report\*\*\*

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



### Format No: APML/ENV-LB/7.8/F01

TC51932000000926F		Date: 3	0.09.2020				
TEST REPORT							
Issued To:	ntre, MIDC – Tirora	3					
Sample Particulars :	Stack Monitoring						
Sample Collected by :	Environment Dep	t. APML					
1 Sampling Location	:	Un	it -4				
2 Date of Sampling	:	17.09	9.2020				
3 Time of Sampling	:	: 2:15 PM					
4 Load (MW)	:	: 458					
5 Height of Stack (Me	ter) :	2	75				
6 Diameter of Stack (I	Meter) :	7	.4				
7 Type of Fuel	:	C	bal				
8 Flue Gas Temperatu	ıre ( <sup>°</sup> C) :	1:	22				
9 Flue Gas Velocity (N	//sec) :	22	.37				
10 Flow of Exit Gas at NTP (NM <sup>3</sup> /Hr) : 2			4709				
Sr. No Test Parameters	Test Method	MPCB Standards	Units	Results			

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	36
2	2 60	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	874
2		1985	80.2	TPD	52.8
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	250
4	Mercury	USEPA - 0060	0.03	Mg/Nm3	0.019

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

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

03/10

Lab

Authorized Signatory (Technical Manager)



(Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



Format No: APML/ENV-LB/7.8/F01

TC51932000000925F			Date: 30.09.2020		
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911					
Sample Particulars : Stack Monitoring					
Sample Collected by : Environment Dept. APML					
1 Sampling Location	:	Unit -3			
2 Date of Sampling	:	28.09.2020			
3 Time of Sampling	:	3:40 PM			
4 Load (MW)	:	612			
5 Height of Stack (Me	ter) :	275			
6 Diameter of Stack (	Meter) :	7.4			
7 Type of Fuel	:	Coal			
8 Flue Gas Temperat	ure ( <sup>0</sup> C) :	126			
9 Flue Gas Velocity (I	M/sec) :	23.04			
10 Flow of Exit Gas at	NTP (NM <sup>3</sup> /Hr) :	2563142			
			<u> </u>		

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	PM	IS 11255 (Part- 1):1985	50	50 Mg/Nm <sup>3</sup>	
2	2 60	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	967.7
	002	1985	80.2	TPD	58.0
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	291.1
4	Mercury	USEPA - 0060	0.03	Mg/Nm3	0.02

\* Results are corrected with 6% oxygen

\*\*\*End of the Report\*\*\*

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Authorized Signatory (Technical Manager)



ADANI POWER MAHARASHTRA LIMITED, TIRODA



Format No: APML/ENV-LB/7.8/F01

TC51932000000924F Date: 30.09.2020 APML, Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Issued To: Dist. Gondia – 441 911 Sample Particulars : Stack Monitoring Sample Collected by : Environment Dept. APML 1 Sampling Location Unit -1 2 28.09.2020 2 Date of Sampling : Time of Sampling 3:05 PM : Load (MW) : 465 Height of Stack (Meter) 275 : Diameter of Stack (Meter) : 7.4 Type of Fuel Coal 2 Flue Gas Temperature (<sup>0</sup>C) 120 : Flue Gas Velocity (M/sec) 23.24 :

2624850

Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results *
1	РМ	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	48.0
2	50-	IS 11255 (Part 2)	1210	Mg/Nm <sup>3</sup>	941.6
2 302	1985	75.2	TPD	57.0	
3	NOx	IS 11255 (Part 7) 2005	300	Mg/Nm <sup>3</sup>	278.7
4	Mercury	USEPA - 0060	0.03	Mg/Nm3	0.019

\* Results are corrected with 6% oxygen

3

4

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6 7

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### \*\*\*End of the Report\*\*\*

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adani environmental laboratory

(Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



### Format No: APML/ENV-LB/7.8/F01

TC5	19320000000927F	Date: 3	0.09.2020					
	TEST REPORT							
	Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911							
s	ample Particulars :	Stack Monitoring						
Sa	mple Collected by :	Environment Dep	t. APML					
1	Sampling Location	:	Un	it -5				
2	Date of Sampling	:	17.09	9.2020				
3	Time of Sampling	:	2:50	PM				
4	Load (MW)	:	4	60				
5 Height of Stack (Meter) :			275					
6 Diameter of Stack (Meter) :			7.4					
7	Type of Fuel	:	Co	bal				
8	Flue Gas Temperatu	re ( <sup>0</sup> C) :	1:	23				
9	Flue Gas Velocity (M	/sec) :	23	.28				
10	Flow of Exit Gas at N	ITP (NM <sup>3</sup> /Hr) :	2609	9841				
Sr. No	Test Parameters	Test Method	MPCB Standards	Units	Results			
1	PM	IS 11255 (Part- 1):1985	50	Mg/Nm <sup>3</sup>	41			
2	SO	IS 11255 (Part 2)	1292	Mg/Nm <sup>3</sup>	887			
-	002	1985	80.2	TPD	55.6			

Mercury \* Results are corrected with 6% oxygen

NOx

3

4

\*\*\*End of the Report\*\*\*

300

0.03

Note: Tested results are well within the permissible limits of MPCB.

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IS 11255 (Part 7)

2005

**USEPA - 0060** 

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258

0.02

Mg/Nm<sup>3</sup>

Mg/Nm3

# adani ENVIRONMENTAL LABORATORY (Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



### Format No: APML/ENV-LB/7.8/F01

### URL No : TC519320000000901F

Date 30,09,2020

	lssued To:	APML,Plot No	o. A -1, Tirora G	rowth Centre,	MIDC – Tirora, (	Dist. Gondia - 44	1 911	
Sar	mple Particulars :	Ambient Air (	Ambient Air Quality (Plant)					
San	ple Collected by :	Environment	Dept. APML					
			Test	Report				
					Par	ameters		
Station	Sampling Location	Sampling	Analysis Starting	PM 10	PM 2,5	S02	NOx	
	j	Date	Date	µg/m3	µg/m3	µg/m3	µg/m3	
		04.09,2020	05,09,2020	56.2	17.9	10.2	19.8	
Í		07.09.2020	08.09.2020	51,8	23.7	8.0	18.6	
		10.09.2020	11.09.2020	58.3	27.2	5.7	17.4	
		14.09.2020	15,09,2020	35.7	24.3	6.3	16.8	
AAQ 1	Near AWRS	17.09.2020	18.09.2020	32.6	26.6	9,4	20.4	
		21.09.2020	22.09.2020	38.8	21.0	8.4	18.0	
		24.09.2020	25.09.2020	47.4	19.0	7.2	14.4	
		28.09.2020	29.09.2020	45.7	24.7	7.0	16.2	
		03.08.2020	05.09.2020	55.2	17.3	7.2	15.6	
		07.08.2020	08.09.2020	40.2	28.9	6.3	10.2	
		10.08.2020	11.09.2020	39.9	25.8	9.0	18.6	
اممما	Nees Databally Direct	13.08.2020	15.09.2020	59.3	18.5	8.4	15.0	
	Near Brick Plant	17.08.2020	18.09.2020	39.8	14.6	10.0	19.2	
		20.08.2020	22.09.2020	42.2	23.2	6.7	19.8	
		24.08.2020	25.09.2020	50.6	22.7	7.6	14.4	
		29.08.2020	29.09.2020	54.4	34.8	9.8	15.0	
		03.08.2020	05.09.2020	56.4	27.4	8.2	13.8	
		07.08.2020	08.09.2020	58.4	25.9	7.4	14.4	
		10.08.2020	11.09.2020	46.4	15.4	9.8	16.8	
	Chica Calcord	13.08.2020	15.09.2020	59.3	26.6	10.6	18.0	
L DNA	china colony	17.08.2020	18.09.2020	51.9	22.7	8.2	15.6	
		20.08.2020	22.09.2020	46.0	13.9	7.8	13.2	
		24.08.2020	25.09.2020	60.6	35.8	11.0	20.4	
		29.08.2020	29.09.2020	62.2	28.8	12.9	19.8	
	NAAQMS St	andard		100	60	80	80	

\*\*\*End of the Report\*\*\* Tested results are well within the permissible limits of National Ambient Air Quality Monitoring Stanadard (NAAGMS Note:

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Authorized Signatory Wani Power (Technical Manager)

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# adani ENVIRONMENTAL LABORATORY





# ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format-No-APML/ENV-LB/7.8/F01

URL N	o.: URLTC51932000000920F		Date: 30.09.2020		
Issued To:		APML,Plot No. A -1, Tirora Growth Centre, MIDC - Tirora, Dist. Gondia - 441 911			
Sampl	e Particulars :	Ambient Noise Level (Plant)			
Sampl	e Collected by :	Environment Dept. APML			
Date of Sampling: 19.09.2020					
		Test Report			
		Day Time in dB (A)	Night Time in dB (A)		
S, No	Locations	(6.00 a.m. to 10.00 p.m.)	(10.00 p.m. to 06.00 a.m.)		
1	Near Shanti Niketan I II & III	41.8	39.9		
2	Near Labour Hutment	61.5	58.1		
3	Near Store Area	54.3	49,7		
4	Gate No.1	53.2	47.8		
5	Gate No.2	64.4	50.0		
6	Gate No.3	53.4	50.6		
7	Near OHC	61.3	54.2		
8	Railway Siding	64.9	59,2		
9	Near Reservoir 2	59,3	51,1		
10	Near Ash Water Recovery Pump House	64.3	54.2		
11	In China Colony	40.7	38.0		
0	PCB Standards (Industrial Area)	75	70		

\*\*\* End Of the Report\*\*\*

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3/10/20 Authorized Signatory (Technical Manager)



# ADANI POWER MAHARASHTRA LIMITED, TIRODA



# Format No: APML/ENV-LB/7.8/F01

URL: TC51932000000915F

Date: 30.09.2020

Issued To:	APML,Plot No. A -1, Tiron	a Growth Centre, MIDC - Tirora,	Dist. (	Sondia - 441 911		
Sample Collection Date	23.09.2020	Analysis Starting Date	:	23.09.2020		
Quantity received	1 Ltr / Sample	Sampled by	:	Environment Dept. APML		
Sample Particulars : Cooling	g tower blowdown (Waste	Water)				
Location of sample : Unit1.Unit-2.Unit-3.Unit-4 & Unit-5.						

### TEST REPORT

	Bacamotor			AADC9	MARCA		Results			
Sr no	(NABL SCOPE)	Unit	Test Methods	Standards	U # 1	U # 2	U # 3	U#4	U # 5 <u>.</u>	
1	Free Available Chlorine	mg/l	APHA-23rd – 4500 Cl G, DPD Colorimetric Method	0.5	0.2		0.2	0.1	0.1	
2	Phosphate as (PO4)	mg/l	APHA-23rd -4500- P D Stannous Chloride Method	5	1.5	Unit Under	0.9	1.8	1.1	
3	Zinc as (Zn)	mg/l		1	BDL	Shut Down	BDL	BDL	BOL	
4	Total Chromium as (Cr )	mg/l		0.2	BDL		BDL	BDL	BDL	

\*\*\*End of the Report\*\*\*

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(Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA

Format No: APML/ENV-LB/7.8/F01

TC-5193

URL: TC519320000000916	Date:	30.09.2020				
Issued To: APML,Plot No. A -1, Tirora Growth Centre, MIDC – Tirora, Dist. Gondia – 441 911						
Sample Collection Date	23.09,2020	Analysis Starting Date	23.0	9.2020		
Quantity received	3 Lit /Sample	Sampled by	Environmer	nt Dept, APML		
Sample Particulars : Treated Effluent Water						

Location of sample : DM Plant N-Pit , ETP Outlet

### TEST REPORT

					Results				
Sr no	Parameter (NABL SCOPE)	Unit	Test Methods	MPCB Standards	N-pit	ETP Outlet			
1	pH Value		APHA-23rd -4500-H+B Electrometric Method	5,5-9,0	8.2	7.9			
2	TSS	mg / I	APHA-23rd - 2540 D	100.0	23	12			
3	TDS	mg / I	APH <b>A</b> -23rd - 2540 C	2100.0	187	166			
4	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	250.0	50	20			
5	BOD at 27 <sup>0</sup> C for 3 days	mg /	IS: 3025 (P-44)-1993 R- 1999 Ad.1 BOD 3-days at 27 °C	30.0	15	10			
6	Oll & Grease	mg / I	APHA-23rd Ed 2017- 5520 B Liquid Liquid Partition Gravemetric method	10.0	0.3	1.4			

### \*\*\*End of the Report\*\*\*

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4. # Indicates this parameter is not covered in our NABL scope

03/10/20 Authonized Signatory (Technical Manager)

# adani ENVIRONMENTAL LABORATORY

# (Accredited by NABL)

# ADANI POWER MAHARASHTRA LIMITED, TIRODA



# Format No: APML/ENV-LB/7.8/F01

### URL NO :TC51932000000914F

### Date: 30.09.2020

Issued To:	APML,Plot No. A -1, Tiror	a Growth Centre, MIDC – Tirora, Dist	. Gondia – 441 911
Sample Collection Date	23.09.2020	Analysis Starting Date :	23.09.2020
Quantity received	1 Ltr / Sample	Sampled by :	Environment Dept. APML
Sample Particulars : C	ondenser Cooling Water(	Waste Water )	
Location of sample : U	nit1,Unit-2,Unit-3,Unit-4 8	Unit-5	

### **TEST REPORT**

Sr	Pacamotor	Unit Test Methods	MPCB			Results			
no	Parameter	Onic	Test Methods	Standards	U#1	U#2	U#3	U#4	U#5
1	pH Value		APHA-23rd - 4500-H+B Electrometric Method	6.5-8.5	7.9		7.6	8.1	8.0
2	Temperature	Deg C	APHA-23rd - 2550 B	Not to exceed 5°C than that of intake water	34.0	Unit Under Shut Down	33.0	35,0	32.0
3	Free Available Chlorine	PPM	APHA-23rd – 4500-Cl G, DPD Colorimetric Method	0.5	0.2		0.2	0.1	0.1

\*\*\*End of the Report\*\*\*

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TG-510 10/20 Authorized Signato (Technical Manager)

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# ADANI POWER MAHARASHTRA LIMITED, TIRODA



### Format No: APML/ENV-LB/7.8/F01

JRL: TC519320000000	918F		Date: 30.09.2020
lssued To:	APML,Plot No. A -1, Tiror	a Growth Centre, MIDC – Tirora,	Dist. Gondia – 441 911
Sample Collection Date	23.09.2020	Analysis Starting Date	23.09.2020
Quantity received	3 Lit /Sample	Sampled by	Environment Dept.

	TEST REPORT											
Sr	Parameter	Unit	Test Methods	MPCB Standards	Res	ults						
no	(NABL SCOPE)				STP-1	STP-2						
1	TSS	mg / I	APHA-23rd - 2540 D	50	25	16						
2	COD	mg / I	APHA-23rd Ed 2017- 5220B Open Reflux Method	100	40	20						
3	BOD at 27 <sup>0</sup> C for 3 days	mg / I	IS: 3025 (P-44)-1993 R-1999 Ad.1 BOD 3- days at 2 <b>7</b> °C	30	14	11						

\*\*\*End of the Report\*\*\*

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imental Labo 3/0/20 Authorized Signatory (Technical Manager)

											Annexure- I	1	
				E C C		WER MAHA	RASHTRA		- (00-)				
Static		MS 12 and	d 3)	5 X 00	Report Ty	rmai Power vne: Mean	Plant , Tir	ora, Gond Ti	ne Base: 1	1Hr	M	onth- Anril	'20
010110			AAQMS-1 ( La	bour Hutmen	t)	,permeen	AAQMS-2 (CI	hina Colony)	line Bober		AAQMS-3	(Gate no -2)	20
Month		PM 10	PM 2.5	S02	NOx	PM10	PM2.5	S02	NOX	PM10	PM2.5	S02	NOX
	Max	87.1	32.8	13.2	27.6	74.4	25.3	11.3	18.9	88.3	35.7	14.5	30.1
1-Apr-20	Min	66.3	21.5	8.1	13.4	52.2	12.2	8.4	11.7	71.2	23.6	7.8	18.2
	Avg Max	76.7 85.1	27.2	10.7	20.5	63.3 77.6	18.8 28.3	9.9 10.6	15.3 20.4	79.8 83.1	29.7	11.2 13.6	24.2
2-Apr-20	Min	63.9	22.8	9.7	12.4	51.1	16.7	6.3	12.6	74.8	27.9	10.9	20.1
	Avg	74.5	24.6	12.5	18.1	64.4	22.5	8.5	16.5	79.0	30.5	12.3	23.9
3-Apr-20	Min	65.7	23.3	9.5	24.8	72.5	25.5	12.7	29.3	75.1	29.5	8.3	26.3
	Avg	77.7	29.4	10.9	28.5	77.5	23.7	14.5	26.0	77.9	27.1	10.1	28.9
4-Apr-20	Max	84.6 68.3	30.8	13.6	30.8 24.3	86.7 77.8	33.8 27.6	13.2	28.3	90.3 76.8	36.2 28.4	17.3	35.3
	Avg	76.5	29.0	11.6	27.6	82.3	30.7	11.7	25.5	83.6	32.3	15.5	33.9
E Asc 20	Max	88.7	38.4	10.7	29.3	83.4	27.3	14.3	29.3	87.5	34.2	12.6	30.8
5-Api-20	Avg	78.7	35.3	9.7	21.8	81.8	25.6	12.8	26.9	80.6	31.5	9.5	28.8
	Max	81.6	27.6	13.4	26.3	86.3	22.8	13.7	31.5	84.3	25.7	9.6	22.6
6-Apr-20	Min Avo	78.3	23.3	11.8	22.7	68.4 77.4	23.4	11.9 12.8	22.9	61.2 72.8	21.3	6.4 8.0	15.3
	Max	86.5	22.9	14.8	29.3	88.7	26.9	11.2	26.7	83.6	23.5	13.3	29.3
7-Apr-20	Min	66.6	18.6	11.6	23.4	69.8	22.4	8.7	23.6	78.4	19.3	10.8	24.1
	Avg Max	76.6 89.1	20.8	13.2	26.4 30.7	79.3 83.1	24.7 31.8	10.0	25.2 32.6	81.0 79.6	21.4	12.1	26.7
8-Apr-20	Min	68.8	26.7	13.4	25.9	77.2	26.1	10.5	30.8	55.6	15.8	9.6	21.1
ļ	Avg	79.0	29.6	15.9	28.3	80.2	29.0	12.2	31.7	67.6	19.5	10.7	22.4
9-Apr-20	Min	88.4	34.8	10.8	31.8	83.1	26.9	12.5	27.7	82.6	24.2	12.5	25.3
ļ	Avg	89.8	35.6	12.4	32.6	86.0	29.8	14.4	29.3	84.1	26.8	14.7	27.5
10-Apr-20	Max Min	90.6 72.2	42.1 36.2	10.9 6.3	31.5 27.6	85.1 82.7	28.9 21.5	12.7 9.3	33.7 26.2	87.2 81.5	31.5 27.3	13.6 10.8	31.2 26.8
	Avg	81.4	39.2	8.6	29.6	83.9	25.2	11.0	30.0	84.4	29.4	12.2	29.0
11-406-20	Max	86.3	35.4	13.2	26.7	88.3	30.8	14.8	31.8	83.9	34.6	15.8	30.9
11-Api-20	Avg	74.9	30.9	10.9	21.5	80.7	27.6	12.4	27.7	80.4	33.2	13.9	27.8
	Max	88.1	28.3	14.5	29.7	89.6	29.7	18.3	32.5	80.8	25.8	17.6	32.1
12-Apr-20	Min Ava	83.4 85.8	21.8 25.1	9.3 11.9	22.9	75.5	24.6	13.7	25.8 29.2	61.5 71.2	22.9	12.8	28.9
	Max	86.0	24.7	9.6	26.8	91.6	37.6	15.6	35.1	87.4	35.8	14.7	29.3
13-Apr-20	Min	61.9	22.6	6.2	22.1	68.3	29.3	10.9	32.5	69.7	25.7	10.8	26.7
	Max	81.6	29.3	10.5	24.5	80.0	32.9	13.5	28.9	84.9	26.9	12.8	31.5
14-Apr-20	Min	69.2	21.8	7.3	24.8	77.6	27.6	9.6	23.7	77.2	21.1	12.6	25.6
	Avg	75.4 83.6	25.6	8.9 13.5	27.1	82.2	30.3	11.2	26.3 31.8	81.1 82.6	24.0 32.8	14.9 13.2	28.6
15-Apr-20	Min	63.2	20.4	6.8	22.7	67.9	24.3	12.8	25.1	71.5	24.7	8.3	23.4
	Avg	73.4	22.2	10.2	24.5	78.8	27.6	14.6	28.5	77.1	28.8	10.8	26.4
16-Apr-20	Min	62.2	27.6	9.3	26.6	60.8	26.4	10.8	29.6	76.2	29.5	6.1	28.6
	Avg	74.6	30.9	11.1	29.7	72.0	24.3	12.0	27.0	82.4	26.6	7.7	24.9
17-Apr-20	Max	82.1 62.8	30.8 26.7	13.6 10.8	29.3 22.8	87.7 69.3	22.1 19.3	17.3 13.4	33.1 28.3	80.9 73.3	24.4	10.9 6.3	31.6 28.8
	Avg	72.5	28.8	12.2	26.1	78.5	20.7	15.4	30.7	77.1	23.0	8.6	30.2
18-401-20	Max	87.9 83.6	29.3	16.6 13.8	32.4	81.6 72.8	26.3	12.3	29.3	86.3 82.7	21.4	14.6	27.3
10 Apr 20	Avg	85.8	26.9	15.2	28.5	77.2	25.1	10.5	27.0	84.5	19.1	10.4	23.3
10 4 20	Max	85.5	26.1	17.6	32.3	88.6	33.0	13.3	32.9	81.1	29.3	16.3	32.2
19-Apr-20	Min Ava	75.9	22.5	11.5	25.4	69.5 79.0	27.6	10.9	26.5	72.2	22.1	12.4	26.5
	Max	82.2	28.6	14.2	29.3	86.3	32.4	14.2	32.5	85.2	31.1	12.5	30.6
20-Apr-20	Min	63.6 72.9	21.1	10.6	21.5 25.4	80.6 83.5	28.2	12.8	28.6	75.3	23.1 27.1	8.3 10.4	24.4
	Max	86.9	32.5	13.2	31.2	89.6	36.0	12.2	26.2	82.2	27.2	10.9	29.0
21-Apr-20	Min	75.8	28.9	9.6	27.4	75.5	27.1	8.8	20.8	63.2	23.9	6.7	22.5
	Max	88.6	29.3	16.3	28.4	86.1	28.3	15.2	32.2	87.4	32.2	13.2	32.2
22-Apr-20	Min	64.2	21.8	13.7	23.8	63.8	24.6	9.8	28.3	80.9	27.7	10.1	27.2
	Avg Max	76.4 91.1	42.2	15.0	26.1 34.2	75.0 89.3	26.5	12.5	32.2	84.2 83.8	50.0 34.4	11./	29.7 30.8
23-Apr-20	Min	83.5	33.4	9.0	29.0	66.7	25.8	11.1	30.5	75.2	31.1	10.6	24.9
	Avg	87.3 86.8	37.8	10.6	31.6	78.0 81.8	30.9 29 3	12.2	31.4 34.2	79.5 87.6	32.8 28.1	12.4	27.9
24-Apr-20	Min	72.1	34.9	12.4	23.8	64.2	22.1	12.6	28.1	83.4	23.9	9.7	24.1
	Avg	79.5	37.7	14.4	26.6	73.0	25.7	15.2	31.2	85.5	26.0	11.8	28.5
25-Apr-20	Max Min	85.4	34.4 31.8	8.6	27.8	74.4	28.9	13.5	27.7	73.9	24.6	8.9	27.6
	Avg	82.2	33.1	9.9	29.4	80.0	32.1	12.1	30.3	78.8	27.4	13.2	25.1
26-Apr-20	Max	88.9 73.6	29.1 22.4	10.0 6.7	26.3 21.8	83.1 79 3	26.3 22.1	9.6	24.0 18.6	85.9 62.8	27.4 22 1	14.3 8.5	28.1
	Avg	81.3	25.8	8.4	24.1	81.2	24.2	7.5	21.3	74.4	24.8	11.4	25.7
27 4 20	Max	86.6	31.2	16.3	28.6	88.8	31.5	12.4	26.9	80.6	20.7	12.4	28.3
27-Apr-20	Avg	84.4	28.8	12.4	24.5	77.1	28.4	8.0 10.5	24.2	70.2	18.8	9.9	25.7
	Max	88.3	33.6	12.9	31.4	82.4	29.6	13.6	36.3	85.2	25.6	13.6	22.6
28-Apr-20	Min	65.7 77.0	32.2	9.7 11 3	26.8 29.1	76.1	23.7	11.8 12 7	31.5 33 9	68.9 77 1	21.8 23.7	11.5 12.6	19.3 21.0
	Max	85.5	37.6	16.3	30.8	88.3	30.5	14.2	28.2	81.6	26.3	17.4	26.9
29-Apr-20	Min	78.6	33.4	12.7	26.3	81.1	25.7	10.8	22.8	72.2	20.7	11.6	23.4
	Avg Max	82.1 87.0	35.5 28.6	14.5	28.6	86.3	28.1 27.6	9.6	25.5 27.6	76.9 87.6	23.5 30.6	14.5	25.2
30-Apr-20	Min	74.4	23.3	8.6	28.6	78.9	25.5	6.7	23.7	80.9	26.3	8.8	24.1
1	Avg	80.7	26.0	10.4	30.5	82.6	26.6	8.2	25.7	84.3	28.5	9.8	26.8

Annexure- II													
				5 x 66	ADANI PO	MER MAHA	RASHTRA	LIMITED	ia (Mh)				
Statio	on: (AAQ	MS 1,2 and	d 3)	2 . 00	Report Ty	/pe: Mean		Tii	me Base: 1	IHr	M	onth- May	20
Month		DM 10	AAQMS-1 ( La	bour Hutmen	:) NO::	<b>BM10</b>	AAQMS-2 (CI	nina Colony)	NOY	<b>BM1</b> 0	AAQMS-3	(Gate no -2)	NOV
Monen		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	502 ug/m3	ppm	ug/m3	ug/m3	ug/m3	ppm
1-May-20	Max	90.3 71.1	35.0	12.3	28.5	83.2	32.4	11.9	24.1 15 9	93.6 72.8	43.5	16.8 10.2	31.2
	Avg	80.7	29.3	10.4	26.1	73.8	28.3	9.3	20.0	83.2	37.6	13.5	26.8
2-May-20	Max	92.4 74.2	37.1 21.9	14.4 6.8	30.6 22.0	86.8 60.1	28.3 21.7	10.8 8.6	29.7 16.8	91.5 63.8	46.7 33.4	14.2 9.5	33.4 24.8
2 110) 20	Avg	83.3	29.5	10.6	26.3	73.5	25.0	9.7	23.3	77.7	40.1	11.9	29.1
3-Mav-20	Max	88.3 70.2	30.8 18.5	12.3	27.2	82.1 76.8	25.4 18.3	11.8 6.7	26.3 18.8	83.2 72.8	22.6	16.3 12.8	32.2
	Avg	79.3	24.7	10.6	25.3	79.5	21.9	9.3	22.6	78.0	20.8	14.6	26.9
4-May-20	Max	78.9 62.4	23.4	13.6 10.8	22.8	85.0 71.8	36.2 32.8	13.5 11.2	29.5 24.4	89.3 75.5	23.0 18.6	15.2 12.9	27.7
	Avg	70.7	21.2	12.2	21.1	78.4	34.5	12.4	27.0	82.4	20.8	14.1	25.2
5-Mav-20	Max	86.3 75.8	28.8 23.1	10.6 8.4	29.3 24.2	89.6 65.2	42.2	16.8 12.5	33.7 26.4	78.2	28.9 23.1	12.3 9.4	33.1 28.4
	Avg	81.1	26.0	9.5	26.8	77.4	38.7	14.7	30.1	69.7	26.0	10.9	30.8
6-Mav-20	Max	92.2 79.3	33.6 26.8	16.8 13.7	34.1 32.6	87.6 63.2	38.2 29.8	17.2	28.9	85.2 72.4	31.4 22.6	18.6 14.2	29.3 23.4
	Avg	85.8	30.2	15.3	33.4	75.4	34.0	14.4	26.2	78.8	27.0	16.4	26.4
7-Mav-20	Max	96.7 84.2	46.8 34.1	12.5 9.7	33.7 30.8	89.6 83.4	33.1 27.6	12.8 8.6	35.6 31.5	83.4 78.9	36.6 33.7	11.3 7 9	32.6 30.8
	Avg	90.5	40.5	11.1	32.3	86.5	30.4	10.7	33.6	81.2	35.2	9.6	31.7
8-May-20	Max	93.4 76.6	40.2 37.4	16.2 13.7	28.8	85.2 74.4	28.3	15.3 10.6	29.2	87.3 69.8	41.2	16.3 12.4	28.3 25.1
,	Avg	85.0	38.8	15.0	27.9	79.8	24.8	13.0	27.6	78.6	39.0	14.4	26.7
9-Mav-20	Max	96.6 88.2	34.1 31.4	14.2 9.8	31.2 28.8	88.6 85.2	32.5 28.8	14.2 11.7	31.1 27.2	82.2 74.4	36.4 27 1	12.5 8 3	29.9 24.8
, =•	Avg	92.4	32.8	12.0	30.0	86.9	30.7	13.0	29.2	78.3	31.8	10.4	27.4
10-Mav-20	Max Min	93.1 86.4	32.4 29.7	13.5 10.8	33.6 29.4	86.3 74.7	37.5 33.7	14.6 11.2	32.2 28.8	89.3 75.8	46.8 33.4	18.3 13.6	32.5 27.2
,	Avg	89.8	31.1	12.2	31.5	80.5	35.6	12.9	30.5	82.6	40.1	16.0	29.9
11-Mav-20	Max	87.3 65.2	28.6 24.1	12.5 8.8	29.6 22.4	83.9 66.2	38.8 33.1	12.2 9.8	36.4 29.8	91.2 78.6	41.1	15.6 11.5	33.6 28.7
	Avg	76.3	26.4	10.7	26.0	75.1	36.0	11.0	33.1	84.9	36.6	13.6	31.2
12-May-20	Max	93.4 82.3	36.6 24.8	11.8 8.6	39.7 25.5	88.7 76.8	30.6 21.5	16.9 13.7	32.4	85.6 76.3	28.4	17.2	27.6
	Avg	87.9	30.7	10.2	32.6	82.8	26.1	15.3	30.3	81.0	24.0	15.3	25.2
13-Mav-20	Max	96.3 84.3	42.8 35.4	18.6 12.7	36.8 32.4	82.7 74.4	28.9 23.4	13.7 10.9	31.1 28.7	89.6 76.8	33.1 27.4	18.8 12.4	31.5 26.2
	Avg	90.3	39.1	15.7	34.6	78.6	26.2	12.3	29.9	83.2	30.3	15.6	28.9
14-Mav-20	Max	89.3 68.2	38.6 34.4	16.3 12.2	29.6 22.4	79.9 75.3	22.6 19.3	10.7 8.6	27.6	82.9 76.4	29.8	16.3 13.7	33.4 29.9
	Avg	78.8	36.5	14.3	26.0	77.6	21.0	9.7	24.5	79.7	26.2	15.0	31.7
15-May-20	Max	85.2 80.4	26.3 22.2	12.3 8.6	26.3 21.1	80.6 73.4	33.6 28.3	13.4 10.8	32.2 28.6	89.3 82.4	33.6 28.4	18.6 15.2	36.4 32.7
	Avg	82.8	24.3	10.5	23.7	77.0	31.0	12.1	30.4	85.9	31.0	16.9	34.6
16-May-20	Max Min	88.8 84.6	30.5 27.9	16.3 12.8	29.3 27.3	84.3 71.4	33.6 25.7	19.6 13.5	31.2 28.6	83.4 78.2	29.4 27.1	19.2 13.6	32.1 30.8
	Avg	86.7	29.2	14.6	28.3	77.9	29.7	16.6	29.9	80.8	28.3	16.4	31.5
17-May-20	Max Min	82.6 75.2	26.3 22.4	11.5 8.6	23.3 20.7	87.6 82.2	39.3 33.4	15.2 13.4	27.2	90.6 84.1	44.2 36.1	17.6 12.1	38.3 32.4
	Avg	78.9	24.4	10.1	22.0	84.9	36.4	14.3	24.6	87.4	40.2	14.9	35.4
18-May-20	Max Min	89.6 82.2	30.8 21.5	16.3	28.3	86.3 76.2	28.3	16.3 14.2	29.6	85.5 81.1	36.3 31.4	19.6 12.1	33.6 31.5
	Avg	85.9	26.2	14.1	25.4	81.3	24.0	15.3	25.4	83.3	33.9	15.9	32.6
19-May-20	Max	78.4	35.6	9.8	26.3	77.1	30.8	15.2	26.5	89.5	38.3	17.6	32.5
	Avg	87.4	41.3	12.2	28.8	82.9	32.0	16.9	29.6	86.7	40.3	14.7	33.3
20-May-20	Max	94.5	41.2	9.9	32.4	85.5	33.6	12.8	25.6	82.6	35.7	11.9	29.5
	Avg	92.9	42.9	11.8	34.4	88.4	35.0	14.1	28.2	85.7	36.5	13.6	25.9
21-May-20	Min	77.2	36.5	8.9	30.2	83.4	28.8	7.9	26.8	86.8	44.8	13.7	30.9
	Avg	83.8 86 3	38.7 33.6	12.8 14 4	31.8	86.5 82.6	30.7	9.7	29.7 27.8	90.6 86.6	46.7	15.7 16 3	32.3
22-May-20	Min	76.8	31.5	10.9	21.8	79.3	21.4	6.3	21.9	82.1	28.8	11.8	24.6
	Avg May	81.6 89.1	32.6 31.1	12.7 13.3	25.7 31.5	81.0 92.3	25.4 38.6	8.0 14.3	24.9 34.5	84.4 83.6	30.8 29.3	14.1 15.7	27.0 32.5
23-May-20	Min	75.3	26.9	10.9	27.6	85.5	33.4	12.9	31.8	81.4	25.2	9.6	29.8
	Avg Max	82.2 93.3	29.0 46.8	12.1 15.9	29.6 33.8	88.9 90.6	36.0 42.6	13.6 12.6	33.2 34.4	82.5 86.3	27.3 33.8	12.7 16.3	31.2 29.3
24-May-20	Min	91.5	37.1	11.6	31.2	85.7	39.2	9.9	32.9	80.9	31.6	11.8	21.5
	Avg Max	92.4 89.9	42.0 41.1	15.8 12.3	52.5 29.3	88.2 93.5	40.9 46.3	11. <i>3</i> 10.9	33.8	85.6 89.6	32.7 30.6	14.1 13.9	25.4 32.6
25-May-20	Min	86.7	38.8	9.3	22.4	88.6	41.4	6.3	29.2	84.3	27.2	10.2	27.3
	Max	94.3	40.0	16.8	25.9 35.5	91.1 87.8	45.9	8.6 15.7	29.6	91.4	28.9 36.6	14.4	36.9
26-May-20	Min	92.6	39.6	12.9	32.8	83.9	31.5	12.5	24.4	87.5	32.5	10.6	31.5
	Max	93.5 93.3	42.0	14.9	31.4	89.3	31.5	14.1	35.3	87.3	32.6	12.5	30.9
27-May-20	Min	86.1	40.3	8.6	28.6	82.5	28.6	10.9	31.8	83.6	30.8	13.8	28.6
	Max	89.7	36.3	9.6	28.6	92.3	39.3	19.6	36.7	90.9	34.9	15.7	29.8 38.6
28-May-20	Min	81.4	34.5	6.3	22.5	91.5	34.6	14.3	32.1	84.5	32.2	12.5	33.7
	Max	89.6	32.1	15.6	31.6	90.6	35.6	13.2	34.4	93.7	45.5	16.3	32.8
29-May-20	Min	84.5	28.6	11.8	25.8	81.8	33.7	8.9	32.9	92.4	42.3	11.8	29.5
	Max	94.6	46.6	12.5	33.8	86.7	34.7 39.0	18.3	34.3	95.1 91.4	45.9	14.1	33.8
30-May-20	Min	92.5	33.7	7.6	28.9	80.6	33.8	12.9	31.4	85.5	39.6	12.9	31.3
	Max	91.5	40.2	13.3	30.9	89.9	33.7	19.0	36.8	86.3	35.8	14.1	37.2
31-May-20	Min Avo	89.7 90.6	38.7 39.9	9.7 11.5	27.6 29.3	81.1 85.5	30.8 32.3	11.5 13.1	31.5 34.2	81.1 83.7	33.1 34.5	8.6 10.6	32.8 35.0

ADANI DOMER MAHADASHITRA I MITED													
					ADANI P	OWER MAHA	RASHTRA L	IMITED					
Chak	iaa. (AAO	MC 1 2 and	7)	5 x	660 MW Th	ermal Power	Plant , Tiro	ra, Gondia (A	Ah)	14			20
Stat	ion: (AAQI	VIS 1,2 and 2	) 10115 1 (   -	have Liviana	Report I	ype: Mean	AOME 2 (0	hina Calaaw	me Base: Ti	-1r	N		20
Month		PM 10	PM 2 5			PM10	PM2 5	SO2	NOX	PM10	PM2 5		NOX
		uo/m3	uo/m3	uo/m3	uo/m3	ug/m3	uo/m3	ua/m3	DOM	uo/m3	uo/m3	ug/m3	DOM
	Max	86.3	42.2	10.6	26.3	89.1	40.9	15.3	25.6	82.3	32.3	12.3	22.4
1-Jun-20	Min	68.4	33.8	6.3	22.8	80.3	34.3	12.2	21.4	72.2	28.6	9.4	18.6
	Avg	77.4	38.0	8.5	24.6	84.7	37.6	13.8	23.5	77.3	30.5	10.9	20.5
	Max	88.6	32.7	11.8	29.9	82.6	33.4	12.3	24.1	80.5	31.5	16.3	20.6
2-Jun-20	Min	84.2	28.2	8.8	27.5	81.1	29.7	8.8	21.9	78.2	26.3	14.1	18.3
	Avg	86.4	30.5	10.5	28.0	81.9	30.1	10.6	25.0	/9.4 07.4	28.9	15.2	19.5
3-Jun-20	Min	87.2	32.9	9.0	20.5	811	27.5	8.6	17.2	81.2	28.3	9.8	20.5
2 00 20	Ava	88.5	35.7	8.2	25.1	82.4	28.8	10.2	19.4	82.3	30.6	11.2	22.1
	Max	92.3	40.3	17.3	28.6	90.2	38.3	13.4	26.3	88.5	39.3	14.3	26.3
4-Jun-20	Min	88.4	37.2	13.7	23.7	87.5	32.2	11.8	22.7	81.3	37.8	10.8	24.9
	Avg	90.4	38.8	15.5	26.2	88.9	35.3	12.6	24.5	84.9	38.6	12.6	25.6
	Max	85.6	31.2	12.3	21.6	82.2	29.3	9.6	23.3	89.6	40.3	16.3	23.4
5-Jun-20	Min	84.3	27.3	8.8	17.3	78.2	26.8	6.3	20.8	87.2	37.9	14.2	21.1
	Avg	85.U	29.5	10.6	19.5	80.2	28.1	8.U	22.1	88.4 01.6	39.1 20.3	15.5	22.5
6-Jun-20	Min	83.1	31.4	12.7	21.4	78.9	31.8	10.4	20.4	79.3	29.5	9.7	20.4
0 00 20	Ava	85.9	32.7	14.5	22.5	81.1	32.8	12.3	25.6	80.5	26.7	11.3	25.3
	Max	87.1	25.6	12.2	26.3	85.1	29.6	9.6	19.7	81.1	22.6	13.2	23.2
7-Jun-20	Min	84.4	21.1	6.5	24.8	83.7	23.4	7.2	16.8	76.3	19.8	11.1	20.0
	Avg	85.8	23.4	9.4	25.6	84.4	26.5	8.4	18.3	78.7	21.2	12.2	21.6
	Max	63.4	22.1	9.8	19.1	66.6	18.6	7.7	21.1	61.5	18.8	10.9	20.3
8-Jun-20	Min	55.8	18.6	5.3	13.5	62.7	13.3	6.1	18.7	58.8	16.5	6.6	17.6
	Avg	29.6 60.3	20.4	/.0 11.2	21.1	04./ 77.7	21.1	0.9 12.6	19.9	64.4	20.9	8.8 17.7	19.0
9-Jun-20	Min	64.8	20.5	8.8	∠1.1 18.8	73.5	21.1 19.6	8.8	22.4	62.8	20.8 15.6	14.8	22.0
	Ava	67.1	25.4	10.0	20.0	72.4	20.4	10.7	22.6	63.6	18.2	16.1	21.2
	Max	63.2	19.6	17.8	26.4	69.6	23.1	8.9	18.3	56.8	17.6	14.2	18.6
10-Jun-20	Min	57.7	14.4	15.9	23.7	57.8	21.1	5.6	12.5	54.5	13.7	11.1	12.8
	Avg	60.5	17.0	16.9	25.1	63.7	22.1	7.3	15.4	55.7	15.7	12.7	15.7
44 100 00	Max	60.0	15.6	14.3	21.1	58.6	19.6	10.6	18.6	59.9	21.4	11.3	20.3
11-Jun-20	Min	58.8	12.2	12.2	18.8	46.3	15.7	6.5	15.7	57.7	17.5	9.4	17.2
	Max	63.7	23.7	10.6	20.0	66.6	21.4	77	19.9	63.3	19.4	13.6	23.3
12-Jun-20	Min	60.9	21.1	6.7	19.6	63.1	17.5	5.9	16.3	61.1	14.5	11.4	21.4
	Avg	62.3	22.4	8.7	21.5	64.9	19.5	6.8	18.1	62.2	16.1	12.5	22.4
	Max	56.8	16.6	13.4	19.3	51.5	15.6	8.9	15.6	55.0	18.9	9.9	16.8
13-Jun-20	Min	54.4	13.8	10.8	13.5	46.3	13.9	6.0	12.8	53.8	14.6	6.8	14.1
	Avg	55.6	15.2	12.1	16.4	48.9	14.8	7.5	14.2	54.4	16.8	8.4	15.5
14. Jun-20	Max	58.8	18.6	11.2	22.4	54.1	18.6	8.1	11.3	51.6	19.8	12.4	19.6
14-3011-20	Avo	56.7	16.0	9.7	21.0	52.2	15.4	75	9.7	49.8	17.0	11.2	14.7
	Max	62.5	22.2	14.4	23.3	64.3	19.6	12.3	21.4	60.3	22.7	14.3	23.4
15-Jun-20	Min	61.7	20.8	11.7	21.5	62.2	13.3	9.8	18.6	58.8	20.1	12.4	21.1
	Avg	62.1	21.5	13.1	22.4	63.3	16.5	11.1	20.0	59.6	21.4	13.4	22.3
	Max	65.5	24.5	10.8	21.1	61.1	20.3	8.3	13.8	58.8	18.8	11.7	20.6
16-Jun-20	Min	62.2	21.8	7.6	18.6	58.8	17.6	6.4	11.1	55.9	16.6	9.3	17.7
	Avg	62.9	25.2	9.2	19.9	60.0 56.0	19.0	7.4 12.3	12.5	57.4	21.5	10.5	19.2
17-Jun-20	Min	60.8	16.4	11.8	21.5	54.3	14.1	10.8	15.8	49.8	18.6	8.6	16.7
	Avg	61.5	17.6	12.5	22.3	55.6	16.5	11.6	17.6	50.7	20.1	9.2	17.5
	Max	55.5	16.7	17.1	22.6	58.2	17.8	14.2	20.4	53.6	15.3	10.6	19.2
18-Jun-20	Min	53.9	14.7	14.3	20.8	56.7	13.5	11.1	17.7	51.4	12.4	9.7	17.7
	Avg	54.7	15.7	15.7	21.7	57.5	15.7	12.7	19.1	52.5	13.9	10.2	18.5
10, 100, 20	Max	62.1	18.5	14.2	20.2	60.3	22.4	10.6	21.8	57.4	18.6	13.1	20.6
19-3011-20	Avo	61.3	10.7	12.0	19.0	59.5	20.5	9.0	17.0	56.3	10.0	12.3	10.0
	Max	65.2	23.1	12.7	21.1	63.2	20.2	12.4	22.5	60.2	21.1	7.9	18.1
20-Jun-20	Min	63.8	21.5	10.6	17.6	61.5	18.8	10.1	20.9	58.8	19.9	5.4	16.5
	Avg	64.5	22.3	11.7	19.4	62.4	19.5	11.3	21.7	59.5	20.5	6.7	17.3
	Max	61.1	18.6	14.8	22.6	58.3	15.9	6.8	18.8	63.4	22.8	11.2	21.0
21-Jun-20	Min	59.7	13.7	12.4	19.3	57.1	12.4	5.7	14.5	62.5	19.9	9.8	18.3
	Avg	6U.4	16.2	15.6	21.0	56.0	14.2 17.9	6.3 Q.6	10./ 10.9	0.0 co	21.4	10.5	19.7
22-Jun-20	Min	56.8	10.5	9.0	20.8	55.1	14.2	7.7	15.5	49.9	15.5	و.در 11.5	18.8
	Avg	57.4	12.3	10.1	21.5	56.0	16.0	8.7	17.7	50.5	17.7	12.4	19.9
	Max	60.3	20.8	14.8	23.3	57.6	19.7	12.5	23.4	59.7	20.7	10.5	22.1
23-Jun-20	Min	58.8	17.7	12.5	21.1	54.4	17.7	9.6	21.1	57.9	17.7	8.8	18.9
	Avg	59.6	19.3	13.7	22.2	56.0	18.7	11.1	22.3	58.8	19.2	9.7	20.5
24. Jun 20	Max	66.9	21.1	10.5	24.2	63.9	16.3	8.9	19.8 16 e	60.5	21.8	/.2 E 1	18.8
2-7-3011-20		65 5	20.9	0./ 9.6	22.0	62.6	14.8 15.6	0.4	18.2	20.0 59.7	20.1	5.1	17.4
	Max	63.8	17.3	12.2	21.4	66.7	18.8	9.7	21.4	61.1	17.4	8.4	23.5
25-Jun-20	Min	60.2	15.5	9.9	19.6	65.1	16.4	8.4	17.6	59.7	14.1	6.8	21.8
	Avg	62.0	16.4	11.1	20.5	65.9	17.6	9.1	19.5	60.4	15.8	7.6	22.7
	Max	66.4	19.7	10.6	16.8	68.3	20.4	11.4	20.8	63.3	18.9	12.8	20.5
26-Jun-20	Min	64.7	15.5	8.4	12.4	67.1	17.6	9.9	18.7	61.8	15.8	8.3	17.7
	Avg	65.6	17.6	9.5	14.6	67.7	19.0	10.7	19.8	62.6	17.4	10.6	19.1
27- Jun-20	Max	67.9 67.7	21.1 19.9	15.4	22.5 10.9	6U.8 59 7	22.2	15.8	25.5	56 0	14.4	8.4	16.5
2. 001-20	Avo	68.3	20.0	12.1	21.2	59.6	20.8	12.5	22.3	57.8	12.8	7.5	15.4
	Max	52.5	15.2	7.9	19.1	56.8	17.6	11.9	20.7	61.4	21.0	10.6	20.8
28-Jun-20	Min	50.9	14.1	5.8	15.8	54.3	13.8	8.5	18.9	59.7	18.8	8.3	17.7
	Avg	51.7	14.7	6.9	17.5	55.6	15.7	10.2	19.8	60.6	19.9	9.5	19.3
	Max	54.6	18.3	8.7	18.9	59.4	18.1	12.8	18.1	51.6	16.3	12.6	21.8
29-Jun-20	Min	52.8	15.1	5.8	16.3	57.6	16.6	10.2	16.2	50.1	14.8	11.7	19.9
	Avg	53.7 52 1	16.7	/.5	1/.6	58.5	1/.4	11.5 17.6	17.2	50.9	15.6	12.2	20.9
30-Jun-20	Min	50 R	19.9	9.7	20.5	54.2	21.1 18.4	10.0	22.2	55 R	19.9	9.9	23.4
	Avg	51.5	18.4	8.9	19.6	54.7	19.8	12.1	20.8	56.0	18.8	10.7	22.5

							DACUTDA				Annexure- I	I	
				5 x 66	0 MW The	mal Power	Plant , Tir	ora, Gondi	ia (Mh)				
Statio	on: (AAQI	MS 1,2 and	d 3)		Report Ty	/pe: Mean	AAOMS-2 (C)	Tii Tii	me Base: ´	1Hr	M	onth- July	20
Month		PM 10	PM 2.5	SO2	NOx	PM10	PM2.5	SO2	NOX	PM10	PM2.5	S02	NOX
	Max	ug/m3 85.4	ug/m3 21.5	ug/m3 7.0	ug/m3 16.0	ug/m3 63.4	ug/m3 22.2	ug/m3 7.8	<b>ррм</b> 19.4	ug/m3 56.3	ug/m3 23.4	ug/m3 8.6	<b>ррт</b> 21.5
1-Jul-20	Min	78.5	18.8	5.3	11.1	54.8	18.5	4.5	15.3	51.4	21.1	5.1	17.7
	Max	82.0	20.2	8.3	20.2	67.7	20.4	9.6	22.5	66.8	25.4	11.5	22.7
2-Jul-20	Min	82.4	21.1	6.1	18.4	54.2	21.9	5.2	18.1	62.3	22.8	8.2	19.6
	Max	84.9	25.6	13.2	19.5	69.7	22.6	8.7	18.3	55.8	22.3	6.9	23.4
3-Jul-20	Min	79.3	21.8	11.4	14.4	57.3	16.7	6.4	14.8	52.1	19.9	5.2	21.8
	Max	79.2	21.4	10.3	23.7	78.8	22.4	11.4	20.1	63.8	23.4	12.4	23.3
4-Jul-20	Min	77.7	18.7 20.1	7.9	21.1	76.4	19.9 21.2	9.8 10.6	18.6 19.4	61.5 62.7	21.8	9.3 10.9	18.5
	Max	69.3	25.3	7.8	19.8	89.4	19.2	8.8	18.9	80.5	22.3	9.7	21.5
5-Jul-20	Min Ava	62.2 65.8	23.4 24.4	5.4	14.2 17.0	85.7 87.6	15.4 17.3	6.4 7.6	12.1	78.3 79.4	18.7	8.2 9.0	18.6 20.1
	Max	59.3	23.8	8.7	21.2	83.1	23.4	10.3	19.2	84.7	22.5	8.7	19.2
6-JUI-20	Min Avg	57.8 58.6	21.7	6.4 7.6	18.3	81.5 82.3	19.5 21.5	6.8 8.6	14.5 16.9	82.5 83.6	19.9 21.2	6.2 7.5	16.8 18.0
	Max	64.3	20.3	11.2	22.3	72.2	25.8	9.7	21.3	74.2	23.5	12.3	22.1
7-JUI-20	Min Avg	61.5 62.9	17.4	8.8	19.6 21.0	70.5	22.2 24.0	7.1 8.4	18.7	72.8	20.8	8.6	19.3
0 1	Max	68.8	25.4	10.2	18.3	76.8	26.3	13.8	22.5	71.2	18.7	8.7	19.9
0-JUI-20	Avg	67.3	23.8 24.6	8.2	15.4	76.0	24.2	10.4	20.8	70.5	17.3	5.8 7.3	18.0
9- Jul-20	Max	56.2	17.8	7.1	19.2	81.4	22.5	11.7	22.2	66.1	22.5	9.5	19.6
5-301-20	Avg	55.2	15.7	6.3	17.8	80.3	20.6	10.8	21.0	65.2	20.7	8.3	18.0
10- Jul-20	Max	58.7	23.5	11.4 8 3	21.0	61.4	18.2 13.9	9.7	16.8	63.8	18.2	7.8	24.4
10-301-20	Avg	56.3	22.7	9.9	20.3	60.1	16.0	7.4	15.8	62.8	15.8	6.5	23.3
11-Jul-20	Max	62.5 59.2	24.8 21.4	14.7 11 5	23.7	67.2 64.5	21.5 18.6	8.7 5.4	18.2 13.5	57.4	24.6 21.8	9.8 7.0	21.4 18.8
	Avg	60.9	23.1	13.1	22.7	65.9	20.1	7.1	15.9	56.6	23.2	8.4	20.1
12-Jul-20	Max	81.6 78.6	22.8 19.1	8.4 6.7	19.3 17.5	57.6 53.1	22.4 18.2	10.5 7.8	21.5 18 3	61.2 58.4	20.8	12.1 10.5	23.4
	Avg	80.1	21.0	7.6	18.4	55.4	20.3	9.2	19.9	59.8	20.3	11.3	22.6
13-Jul-20	Max Min	48.2 46.8	18.2 15.6	7.2 6.4	19.5 13.4	58.2 56.7	17.5 14.2	8.7 6.1	22.4	51.1 48.3	21.1 18.7	9.1 7.4	16.5 14.8
	Avg	47.5	16.9	6.8	16.5	57.5	15.9	7.4	21.3	49.7	19.9	8.3	15.7
14-Jul-20	Max Min	52.4	21.4	8.6	23.1	62.1	18.7	9.6	20.8	65.5	23.7	9.3	19.8
	Avg	51.3	19.8	9.4	22.4	62.8	20.6	10.6	19.3	66.9	22.4	11.0	17.6
15-Jul-20	Max	44.5	14.2	4.5	13.5	48.9	15.5	7.8	18.7	54.5	24.8	13.2	17.3
	Avg Max	43.7 58.9	12.7 24.2	5.4 14.9	16.0 21.5	50.1 40.6	16.4 11.2	9.3 6.8	20.0 18.6	55.3 65.8	23.5 24.2	12.5 10.8	20.6
16-Jul-20	Min	56.7	22.8	11.7	19.2	38.2	9.6	4.6	15.5	63.4	22.8	8.2	20.5
	Avg Max	57.8 42.1	23.5 15.8	13.3 12.5	20.4	39.4 44.8	10.4 18.9	5.7 10.1	17.1 24.5	64.6 55.7	23.5 21.1	9.5 11.3	21.5
17-Jul-20	Min	40.2	13.1	9.8	15.1	42.7	13.4	8.6	22.8	52.0	19.8	9.8	18.5
	Avg Max	41.2 64.5	14.5 23.4	11.2	16.9 22.8	43.8 54.2	16.2 23.5	9.4 12.5	23.7	53.9 74.2	20.5	10.6	19.4 24.8
18-Jul-20	Min	62.8	21.6	10.1	18.6	52.8	21.9	8.4	20.9	73.8	22.8	13.3	22.5
	Max	58.7	26.8	12.0	20.7	67.1	26.3	14.2	23.8	74.0	23.1	14.8	24.8
19-Jul-20	Min	56.8 57.8	24.2	11.3 12.7	22.7	65.7 66.4	23.9	11.7	21.1	68.2	20.8	10.3	22.7
	Max	66.1	22.1	10.6	27.2	44.8	21.8	8.7	18.2	76.8	26.3	14.8	21.5
20-Jul-20	Min Ava	58.4 62.3	19.5 20.8	8.2 9.4	24.8 26.0	42.8 43.8	19.1 20.5	5.3 7.0	13.1 15.7	75.2 76.0	24.1 25.2	12.6 13.7	18.2 19.9
24 1 1 22	Max	64.7	25.4	11.5	21.5	55.0	21.1	9.6	22.3	66.7	23.4	12.8	23.7
21-JUI-20	Min Avg	56.9 60.8	23.8 24.6	8.3 9.9	18.5	48./ 51.9	20.2	8.5	20.7	65.6	21.0	6.3 9.6	21.8 22.8
22- Jul-20	Max	55.7	22.8	8.7	22.5	61.5	18.3	10.2	24.1	63.1	21.1	12.3	21.6
0	Avg	53.9	21.5	7.4	21.3	60.4	17.4	8.9	23.3	62.5	19.9	11.4	20.4
23-Jul-20	Max	46.8 44.2	20.4 18.7	6.1 4.2	16.4 14 5	57.8 54.7	21.0 19.4	11.2 8.6	22.7 19.4	50.3 49 1	22.1 20.8	8.9 53	22.8 21 3
	Avg	45.5	19.6	5.2	15.5	56.3	20.2	9.9	21.1	49.7	21.5	7.1	22.1
24-Jul-20	Max Min	72.2 70.6	34.2 32.8	9.3 6.4	21.4 18.6	56.4 47.7	25.4 23.8	14.2 11.7	23.8 21.7	63.1 59.2	38.7 36.8	12.5 9.3	26.3 24.1
ļ	Avg	71.4	33.5	7.9	20.0	52.1	24.6	13.0	22.8	61.2	37.8	10.9	25.2
25-Jul-20	Max Min	75.2 73.4	36.7 34.6	8.8	25.6	61.5	21.2 19.9	8.3	26.3 24.1	56.8	33.4 31.6	8.2	27.4
ļ	Avg	74.3	35.7	9.8	24.8	62.5	20.6	10.6	25.2	57.7	32.5	9.9	24.8
26-Jul-20	Min	77.7	30.9	6.4	20.8	64.1	26.7	8.2	19.3	57.8	24.8	5.5	21.1
	Avg Max	78.5 68.4	31.7 26.8	7.6 12.4	21.7 25.4	65.5 63.8	27.5 31.7	9.8 13.5	20.7 28.3	63.5 70.6	26.9 28.0	7.6 10.2	22.4 27.5
27-Jul-20	Min	66.6	24.6	10.9	23.1	61.5	28.1	10.2	25.8	68.7	26.8	8.3	23.4
	Avg Max	67.5 70.2	25.7 33.4	11.7 13.8	24.3 26.8	62.7 68.9	29.9 26.4	11.9 11.5	27.1 25.4	69.7 56.8	27.4 32.5	9.3 10.2	25.5 24.1
28-Jul-20	Min	68.7	30.9	10.2	23.1	66.2	24.7	9.3	22.8	53.4	30.9	7.5	22.2
ļ	Max	75.8	38.2	12.0	23.8	55.2	25.6	8.2	24.1	55.1 67.6	26.6	12.8	25.2
29-Jul-20	Min	73.1	36.7	11.2	20.1	53.7 54 5	24.5	6.6 7 4	19.3	65.2	24.1	9.3	22.8
	Max	65.2	32.5	17.2	29.3	51.8	30.5	11.8	27.7	68.5	37.0	8.6	24.0
30-Jul-20	Min	63.8 64.5	28.1	14.1 15.7	24.7 27.0	48.2	26.2	7.4	25.1 26.4	65.9 67.2	33.2 35.1	5.8 7.2	18.3 19.9
	Max	51.2	28.4	10.8	21.4	56.6	23.8	8.4	20.7	61.3	25.3	12.4	23.8
Jul-20ء	Min Avg	48.3 49.8	26.2 27.3	8.3 9.6	18.3 19.9	54.7 55.7	21.2 22.5	6.1 7.3	17.1 18.9	59.4 60.4	23.4 24.4	8.7 10.6	20.1 22.0

				5 x 66	D MW The	mal Power	Plant , Tir	ora, Gond	ia (Mh)				
Statio	n: (AAQ	MS 1,2 and	d 3)		Report Ty	/pe: Mean		Ti	me Base: 1	lHr	Moi	nth- Augus	st'20
Month		PM 10	AAQMS-1 ( La PM 2.5	SO2	NOx	PM10	AAQMS-2 (Cl PM2.5	SO2	NOX	PM10	AAQMS-3 PM2.5	(Gate no -2) SO2	NOX
		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ppm	ug/m3	ug/m3	ug/m3	ppm
1-Aug-20	Min	78.2	30.9	14.8	28.5	63.8	22.8	9.9	25.5	85.5	23.5	12.8	23.8
	Avg	83.8	31.7	13.0	25.9	64.5	21.6	10.7	23.7	84.4	24.6	11.5	22.7
2-Aug-20	Min	73.5	22.4	9.9	21.5	60.8	18.3	10.1	21.1	53.4	19.8	7.6	20.5
	Avg	75.4	24.4	10.7	22.5	61.8	19.4	11.3	21.8	54.6	20.7	8.4	22.0
3-Aug-20	Min	72.5	17.3	6.8	18.8	56.6	14.6	5.8	19.6	55.8	22.5	8.8	19.6
	Avg	71.7	19.2	7.5	19.5	57.5	16.7	6.7	20.9	56.8	21.9	9.6	20.4
4-Aug-20	Min	68.7	23.5	7.6	16.8	59.3	21.1	9.3	22.3	64.8	22.5	11.2	20.6
	Avg	69.6 66.3	22.6	9.1	18.2	60.4 54.6	21.7	10.4	23.4	65.6 50.4	23.5	12.4	22.1
5-Aug-20	Min	64.2	18.3	8.3	17.5	53.4	14.5	5.4	16.5	49.6	19.5	8.7	15.4
	Avg	65.3	19.5	10.0	18.4	54.0	15.7	6.5	17.6	50.0	20.4	9.9	16.9
6-Aug-20	Min	59.6	13.4	6.2	18.6	49.3	18.7	7.9	18.7	50.8	23.5	7.3	18.9
	Avg	60.4 63.5	15.2	7.3	20.0	50.3 48.7	21.1	9.1 6.8	20.2	51.7 53.4	24.4	9.1	19.7 21.4
7-Aug-20	Min	60.8	20.1	10.2	21.7	46.6	15.6	4.6	14.8	51.5	18.9	6.1	18.3
	Avg	62.2 61.4	21.3	11.4 11.2	22.6	47.7	16.5 19.5	5.7	16.6 18.1	52.5 56.3	19.6 21.5	7.4	19.9 16.3
8-Aug-20	Min	59.6	22.1	8.3	18.8	42.5	14.3	3.5	15.4	54.5	18.3	5.5	14.2
ļ	Avg May	60.5 45.6	23.2 17.2	9.8 7.7	20.9 16.8	43.4	16.9 13.2	4.3 8.9	16.8 20.3	55.4 46.3	19.9 14.3	6.9 7.2	15.3 18.6
9-Aug-20	Min	43.2	11.5	5.1	13.2	39.6	11.1	6.4	16.5	42.5	12.4	4.4	14.3
	Avg Max	44.4 41.5	14.4 18.3	6.4 8.6	15.0 18.3	40.1 44.3	12.2 16.3	7.7	18.4 17.6	44.4	13.4 11.5	5.8 7.9	16.5 15.8
10-Aug-20	Min	40.2	15.6	6.8	15.7	43.5	13.4	6.3	14.3	40.8	9.6	9.0	11.2
	Avg Max	40.9 48.3	17.0 19.5	7.7 6.4	17.0 19.9	43.9 56.3	14.9 21.5	8.3 12.5	16.0 22.4	41.7 44.8	10.6 23.5	8.5 10.5	13.5 18.8
11-Aug-20	Min	46.6	16.6	4.3	17.7	54.8	19.6	8.9	20.2	42.6	21.8	7.5	15.6
	Avg Max	47.5 54.2	18.1 23.5	5.4 12.5	18.8 22.6	55.6 49.5	20.6 17.8	10.7 13.3	21.3 23.6	43.7 50.6	22.7	9.0 8.6	17.2 16.8
12-Aug-20	Min	51.6	21.8	8.7	20.8	47.7	15.7	11.5	21.4	48.5	19.3	6.3	13.3
	Avg Max	52.9 58.8	22.7 26.3	10.6 17.5	21.7 24.8	48.6 55.3	16.8 23.3	12.4 15.8	22.5 26.3	49.6 51.2	20.4	7.5	15.1 25.7
13-Aug-20	Min	56.6	24.5	14.7	22.2	53.8	21.5	13.0	24.8	49.6	18.6	9.6	22.3
	Avg Max	57.7 49.6	25.4 22.1	16.1 13.6	23.5 21.1	54.6 53.7	22.4 24.6	14.4 13.1	25.6 21.4	50.4 47.7	19.5 16.3	11.0 11.9	24.0 21.4
14-Aug-20	Min	48.3	20.6	10.4	18.5	51.4	22.8	11.1	18.6	45.8	13.8	7.7	18.6
	Avg Max	49.0 45.2	21.4	6.8	19.8	48.3	23.7	12.1	20.0	46.8 51.2	15.1	9.8	20.0
15-Aug-20	Min	41.8	18.3	4.5	15.6	46.2	18.9	6.8	15.6	48.6	14.8	6.3	15.5
	Max	43.5 55.3	23.2	8.6	20.3	52.3	20.2	9.0	21.4	49.9	16.6	6.3	17.2
16-Aug-20	Min	53.6	21.5	5.2	18.8	50.6	23.4	9.9	18.2	42.8	13.5	4.7	17.2
	Avg Max	54.5 48.6	15.8	7.3	19.6	46.3	17.3	8.2	19.8	43.7 50.5	20.5	5.5 8.8	18.4
17-Aug-20	Min	46.1	12.5	5.2	15.3	45.8	14.5	5.5	14.3	49.6	17.7	5.6	16.1
	Max	52.5	23.5	12.5	21.5	55.6	22.2	11.5	18.8	54.8	24.5	8.7	13.6
18-Aug-20	Min	51.1 51.8	21.7	10.2	18.8	53.8 54.7	20.8	9.3 10.4	15.1 17.0	52.2 53.5	21.1 22.8	5.5 7 1	10.5 12 1
	Max	48.3	20.2	14.2	23.4	44.5	15.6	7.7	19.4	50.6	21.4	12.2	24.4
19-Aug-20	Min	46.7 47.5	18.8	11.1	21.1	43.8 44.2	12.2	5.3	15.6	49.9 50.3	18.6	8.8	22.5
	Max	51.2	25.5	14.5	21.5	50.6	16.6	9.6	18.8	45.8	17.6	8.3	21.9
20-Aug-20	Min Avg	49.5 50.4	23.1 24.3	12.2 13.4	18.8 20.2	48.3 49.5	13.7 15.2	4.5 7.1	15.8 17.3	43.1 44.5	14.4 16.0	6.8 7.6	18.8 20.4
24.4	Max	55.6	26.3	11.5	23.6	58.0	23.5	17.2	21.5	52.3	24.4	10.8	23.5
21-Aug-20	Min Avg	53.1 54.4	24.8 25.6	8.7	21.8	56.6	20.8	13.8 15.5	18.8	51.8 52.1	22.2	8.2 9.5	19.3 21.4
22-410-20	Max	45.5	17.2	9.6	16.3	48.6	12.5	10.5	18.0	46.3	14.6	7.6	15.6
22-MUY-20	Avg	43.7	16.4	ο.υ 7.7	14.5	47.8	11.4	8.9	14.5	44.1	13.6	6.4	14.4
23-4-0-20	Max	48.3	22.2	10.5	18.7	51.4	22.1	7.7	13.5	46.8	20.2	8.7	18.3
	Avg	47.6	20.4	8.4	14.2	50.6	21.3	6.2	12.3	45.5	19.4	7.1	16.4
24-Aug-20	Max	52.4 50.5	23.7 21.4	12.1	19.9 15 4	49.9 47 5	20.4	9.7	17.2	51.4 48.8	22.1 18.8	12.4 10.8	18.1 14 5
	Avg	51.5	22.6	10.3	17.7	48.7	18.8	8.0	15.9	50.1	20.5	11.6	16.3
25-Auo-20	Max	47.2 45.5	17.2 13.4	7.6 4.5	15.2 11.4	44.5 42.4	13.2 10.4	10.2 8.3	19.3 15.6	48.3 46.7	15.2 11.1	9.6 5.3	14.5 12.1
	Avg	46.4	15.3	6.1	13.3	43.5	11.8	9.3	17.5	47.5	13.2	7.5	13.3
26-Aug-20	Max Min	52.3 50.1	23.2 21.5	12.5 10.8	21.3 18.7	58.1 56.3	20.3 18.8	16.3 14.8	23.1 20.8	50.5 48.6	21.8 17.6	12.2 10.3	21.5 18.6
	Avg	51.2	22.4	11.7	20.0	57.2	19.6	15.6	22.0	49.6	19.7	11.3	20.1
27-Aug-20	Max Min	44.2 42.5	12.8 10.7	8.7 5.8	13.6 11.4	47.3 45.8	21.4 17.7	7.1 4.5	16.3 13.1	43.2 41.7	15.5 13.2	10.1 8.3	18.1 15.5
	Avg	43.4	11.8	7.3	12.5	46.6	19.6	5.8	14.7	42.5	14.4	9.2	16.8
28-Aug-20	Max Min	40.1 38.6	10.2 8.1	6.8 4.3	15.8 13.5	44.1 42.8	13.5 10.1	8.8 6.3	19.3 11.4	41.1 39.4	12.5 10.1	11.5 6.8	17.5 14.4
	Avg	39.4	9.2	5.6	14.7	43.5	11.8	7.6	15.4	40.3	11.3	9.2	16.0
29-Aug-20	Max Min	47.5 45.8	14.7 10.8	12.4 8.3	18.8 16.1	48.8 46.3	15.2 12.4	10.2 7.6	18.8 13.1	44.7 41.6	17.2 15.7	13.6 11.1	19.3 16.1
	Avg	46.7	12.8	10.4	17.5	47.6	13.8	8.9	16.0	43.2	16.5	12.4	17.7
30-Aug-20	Max Min	48.9 46.7	20.5 18.3	14.2 12.1	18.4 16.3	50.3 48.6	18.7 14.4	9.6 5.7	17.6 13.1	47.3 45.1	20.8 18.6	11.8 9.7	16.3 12.4
	Avg	47.8	19.4	13.2	17.4	49.5	16.6	7.7	15.4	46.2	19.7	10.8	14.4
31-Aug-20	Max Min	52.3 48.6	22.7	14.7 11.2	21.1 18.3	54.7 52.2	23.7 21.1	10.8 6.8	21.7 18.8	50.8 48.3	18.3 16.1	15.4 11.1	21.5 17.3
	Avg	50.5	21.8	13.0	19.7	53.5	22.4	8.8	20.3	49.6	17.2	12.3	19.4

											Annexure- I	1	
				5 6 6		WER MAHA	RASHTRA		- (00-)				
Statio		MS 12 an	d 3)	5 X 00	Report Ty	rmai Power	Plant , Tir	ora, Gono Ti	ne Base: 1	1Hr	M	onth-Sent	20
0.000		1,2 011	AAQMS-1 ( La	bour Hutmen	t)	,permeen	AAQMS-2 (CI	nina Colony)	ine bober		AAQMS-3	(Gate no -2)	20
Month		PM 10	PM 2.5	S02	NOx	PM10	PM2.5	S02	NOX	PM10	PM2.5	S02	NOX
	Max	ug/m3	23.4	ug/m3 14.2	22.1	ug/m3 54.0	23.1	12.4	24.4	ug/m3 55.1	20.4	ug/m3 11.8	19.2
1-Sep-20	Min	54.4	21.2	11.1	19.7	52.4	21.5	10.7	21.1	53.8	16.7	9.7	16.8
	Avg	55.3	22.3	12.7	20.9	53.2	22.3	11.6	22.8	54.5	18.6	10.8	18.0
2-Sep-20	Min	48.1	19.9	8.3	17.7	47.2	18.2	8.3	17.7	56.3	22.4	12.4	23.1
	Avg	47.8	20.9	9.4	19.6	48.8	20.3	10.6	20.2	57.6	23.6	11.6	22.3
3-Sen-20	Max	53.3 51.1	24.5	14.8	22.8	57.3 55.8	27.2	17.5	25.1	49.2	18.8	9.7	16.0 13.7
	Avg	52.2	23.2	12.5	20.6	56.6	26.4	15.3	23.3	48.4	17.0	8.5	14.9
	Max	46.3	21.7	8.1	18.2	52.1	24.7	15.2	21.4	49.2	20.1	10.5	18.7
4-Sep-20	Min Ava	42.8 44.6	18.4 20.1	5.6 6.9	13.6	50.8 51.5	21.1	12.1	18.3 19.9	46.7 48.0	18.3	6.2 8.4	15.4
	Max	50.2	22.7	11.8	21.8	55.8	26.1	12.5	23.4	53.1	22.7	13.1	22.8
5-Sep-20	Min	48.8	18.5	8.6	16.3	53.1	22.5	8.3	20.1	51.4	19.3	10.6	18.5
	Max	49.5	18.8	9.9	20.1	48.1	17.2	12.8	19.5	51.2	23.4	14.3	20.7
6-Sep-20	Min	41.6	13.2	7.1	15.8	45.2	14.3	8.3	15.2	48.5	19.3	10.2	18.2
	Avg	42.9	16.0 13.1	8.5	18.0	46.7	15.8	10.6	17.4	49.9	21.4	12.3	19.7
7-Sep-20	Min	44.2	11.2	8.1	16.7	46.8	18.5	5.1	13.7	48.5	21.1	8.6	18.2
	Avg	45.3	12.2	9.9	18.6	47.5	20.0	6.2	14.9	50.4	22.7	9.9	20.7
8-Sep-20	Max	53.4 51.8	25.7	14.2	24.1	50.8 49.6	26.6	11.2 8.8	19.9 15.8	56.2 54.8	22.4	17.3	21.5
· · · · · · · · ·	Avg	52.6	24.6	13.5	23.5	50.2	24.7	10.0	17.9	55.5	21.3	15.8	19.6
0-500 20	Max	57.1	27.1	12.5	22.0	55.1	22.8	15.7	22.5	52.1	24.9	12.4	22.9
9-Sep-20	Min Avg	55.7 56.4	25.6	9.9 11.2	20.8	52.8 54.0	20.7	15.4	20.3	50.6 51.4	21.5	10.6	20.1
	Max	48.3	23.0	10.3	18.6	51.5	21.4	16.2	24.2	54.8	20.6	13.5	24.4
10-Sep-20	Min	44.1	18.6	6.3	13.2	49.0	18.3	13.1	22.1	52.9	17.4	11.1	21.5
	Max	57.1	26.4	17.2	25.6	59.3	23.5	13.2	26.3	52.1	23.6	15.8	22.0
11-Sep-20	Min	55.3	22.1	12.5	19.9	57.8	20.1	11.1	23.1	50.7	21.5	13.2	19.1
	Avg	56.2 61.1	24.3	14.9 14.0	22.8	58.6 63.7	21.8	12.2	24.7	51.4	22.6	14.5 11.4	20.6
12-Sep-20	Min	58.3	18.3	11.2	23.5	61.5	25.1	10.3	19.1	52.4	21.5	8.1	20.8
	Avg	59.7	20.4	12.6	25.4	62.6	26.7	12.1	20.9	54.4	22.8	9.8	22.2
13-Sep-20	Max Min	52.1 50.7	25.3	15.1	23.8	55.6 52.3	27.3	14.3	24.7	52.8 50.3	21.2	13.6 8.3	24.3
	Avg	51.4	24.6	13.8	22.1	54.0	25.7	12.7	22.4	51.6	19.4	11.0	22.7
14 500 20	Max	45.6	21.9	11.2	23.8	48.8	22.1	13.0	21.8	43.8	19.0	9.5	20.2
14-Sep-20	Avg	43.8	20.5	9.8	21.1	45.5	20.8	10.1	20.0	41.9	17.3	7.4	18.7
	Max	46.0	15.6	7.3	14.3	49.3	16.3	9.1	18.3	41.0	16.3	12.3	21.1
15-Sep-20	Min	44.8	10.8	5.1	11.2	44.8	14.7	6.6	13.0	38.4	12.5	9.3	16.2
	Max	38.3	15.3	8.4	18.3	44.2	13.5	6.3	18.6	33.4	17.8	7.3	17.8
16-Sep-20	Min	35.8	12.5	5.5	16.3	42.8	10.1	4.2	14.4	31.2	12.5	4.5	12.0
	Avg Max	37.1 48.2	13.9	7.0	17.3	43.5	11.8 21.3	5.5 9.4	16.5 20.7	32.3 43.2	15.2 22.1	5.9	14.9 21.2
17-Sep-20	Min	44.1	12.5	5.1	13.8	43.2	17.6	6.5	16.2	41.6	20.5	10.1	18.3
	Avg	46.2	15.3	6.3	16.2	44.8	19.5	8.0	18.5	42.4	21.3	11.3	19.8
18-Sep-20	Max Min	46.2	24.1	9.9	22.4	38.3	15.5	6.7	19.3	44.8	18.3	9.8 5.3	16.5
	Avg	45.3	22.3	11.2	21.3	39.4	13.5	8.6	20.4	43.9	19.4	7.6	13.9
19-Sen-20	Max	36.9	14.4	7.2	18.8	40.2	21.4	7.7	19.3 15.2	43.1	24.1	8.7	17.8
	Avg	34.6	13.0	6.2	17.1	39.4	19.9	6.1	17.3	42.3	22.8	7.2	16.2
	Max	48.2	24.1	10.5	18.3	51.6	23.1	12.2	21.0	53.2	27.3	13.5	21.4
20-Sep-20	Min Ava	46.6	21.5	8.5 9.4	16.7	49.3 50.5	19.8 21.5	9.5	20.4	51.9	24.5	10.0	17.2
	Max	42.4	19.6	9.3	21.0	48.3	16.3	8.7	17.3	50.2	26.3	10.5	20.5
21-Sep-20	Min	40.6	14.2	6.1	18.6	46.8	11.5	5.4	14.5	48.6	22.1	6.3 8 4	19.6
	Max	38.5	15.2	8.4	15.4	44.4	18.8	10.5	18.8	42.3	12.5	8.8	14.2
22-Sep-20	Min	36.2	11.4	4.7	13.9	43.8	13.5	6.1	12.3	40.5	10.3	6.1	11.8
	Avg Max	57.4 44.1	21.4	ь.ь 11.2	14./	44.1 46.6	16.2	8.5 9.6	15.6	41.4	11.4	7.5 11.4	15.0
23-Sep-20	Min	42.1	17.5	6.8	14.3	45.5	12.5	5.8	10.7	39.3	11.8	8.6	11.2
	Avg	43.1	19.5	9.0	16.0	46.1	13.6	7.7	12.1	39.8	14.1	10.0	13.3
24-Sep-20	Min	47.8	15.2	5.8	14.1	41.8	12.2	6.2	14.2	44.2	13.5	4.8	14.2
	Avg	48.5	16.9	8.2	16.0	42.5	14.1	7.9	15.3	45.3	15.7	6.1	15.3
25-Sep-20	Max	44.3 42.8	17.2	12.2	21.1	47.3 45 1	19.4 14.2	11.1 8.6	17.3 14.2	48.8 46.2	21.4	8.6 5.7	18.8
19 000 10	Avg	43.6	15.4	10.4	19.7	46.2	16.8	9.9	15.8	47.5	19.4	7.2	17.2
26 6 20	Max	49.8	23.4	9.6	17.5	52.3	22.1	10.5	16.3	46.3	18.2	7.7	18.1
26-Sep-20	Min Ava	47.5 48.7	20.6	/.1 8.4	13.6 15.6	50.5 51.4	18.3	6.3 8.4	12.5	42.8 44.6	15.5	5.4 6.6	12.5
	Max	55.4	25.3	12.2	22.4	59.3	28.3	14.3	25.3	54.8	22.4	13.5	22.7
27-Sep-20	Min	53.1	21.4	10.4	18.3	57.6	26.1	11.5	23.4	53.4	18.6	9.3	20.4
	Avg Max	54.5 57.9	22.9	13.7	20.4	58.5 61.4	31.5	13.7	24.4	55.7	20.5	11.4	≥1.6 23.8
28-Sep-20	Min	55.8	17.6	8.7	17.0	58.6	25.3	10.5	23.7	53.4	24.3	13.5	21.1
	Avg	56.9 63.4	20.3	11.2 15.2	19.9 26.0	60.0 59 1	28.4	12.1 11.0	25.0 24.8	54.6 61 1	25.5 22 1	14.6 13.8	22.5 24.7
29-Sep-20	Min	58.6	24.5	10.8	24.8	57.5	24.6	6.3	21.1	58.9	20.0	11.7	21.5
	Avg	61.0	27.1	13.0	25.4	58.3	26.6	8.7	23.0	60.0	21.1	12.8	23.1
30-Sep-20	Max	55.5 53.1	24.7 21.6	12.2 9.9	23.0	52.4 50.0	23.7 21.8	16.3 13.2	28.2	48.6 46.2	19.3 15.6	8.9 5.8	20.1 14 8
	Avg	54.3	23.2	11.1	21.2	51.2	22.8	14.8	26.4	47.4	17.5	7.4	17.5

Annexure - II	I
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ADANI POWER MAHARASHTRA LIMITED												
5 X 660 MW THERMAL POWER PLANT, TIRODA, GONDIA, MAHARASHTRA												
			CEMS DA	ATA for t	he Month	- April'20	020					
S NO	DATE	SOX(mg/nm3)			NOX(mg/nm3)			PM(mg/nm3)				
5.110.	DATE	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX		
1	1-Apr-20	844.0	816.0	870.4	263.5	258.2	273.9	39.7	37.2	41.8		
2	2-Apr-20	846.5	820.7	876.6	263.9	258.3	277.9	39.8	37.4	42.6		
3	3-Apr-20	846.0	819.1	872.5	264.1	257.2	276.2	39.8	37.3	42.2		
4	4-Apr-20	840.5	820.0	861.0	260.7	255.3	270.7	39.1	37.2	41.3		
5	5-Apr-20	885.2	828.0	924.3	274.9	253.9	290.9	42.0	37.8	45.2		
6	6-Apr-20	891.5	825.2	934.2	277.3	255.6	294.2	42.4	37.3	45.8		
7	7-Apr-20	910.6	886.5	944.1	282.5	273.3	296.9	43.5	41.7	46.4		
8	8-Apr-20	887.8	829.4	942.9	275.4	254.2	297.5	42.1	37.9	46.5		
9	9-Apr-20	879.1	844.8	911.7	273.8	258.7	287.6	41.7	38.7	44.5		
10	10-Apr-20	898.0	856.6	919.4	280.5	262.0	289.9	43.1	39.4	45.0		
11	11-Apr-20	892.9	823.3	926.8	278.7	254.8	292.8	42.7	37.4	45.3		
12	12-Apr-20	897.9	871.5	937.5	279.0	266.7	296.0	42.8	40.7	46.2		
13	13-Apr-20	894.5	864.5	924.1	278.5	266.9	291.0	42.7	40.4	45.2		
14	14-Apr-20	891.2	829.2	924.1	276.7	254.1	291.5	42.3	37.8	45.3		
15	15-Apr-20	904.0	874.6	926.4	281.5	267.5	292.4	43.3	40.5	45.5		
16	16-Apr-20	891.3	828.1	922.9	277.7	254.9	291.2	42.6	38.0	45.2		
17	17-Apr-20	903.6	877.9	938.0	280.9	269.6	295.8	43.2	40.9	46.2		
18	18-Apr-20	898.3	848.7	927.3	279.8	265.3	292.4	42.9	39.8	45.3		
19	19-Apr-20	878.3	825.9	939.2	273.9	253.7	295.4	41.8	37.8	46.1		
20	20-Apr-20	889.2	828.2	943.7	276.9	255.2	298.0	42.4	38.1	46.6		
21	21-Apr-20	892.1	825.6	945.9	277.7	255.1	298.0	42.5	37.7	46.3		
22	22-Apr-20	893.0	846.8	944.2	277.2	261.9	297.9	42.5	39.4	46.6		
23	23-Apr-20	909.1	888.2	929.5	282.4	272.2	292.5	43.5	41.2	45.5		
24	24-Apr-20	899.1	868.8	928.6	280.5	268.5	292.8	43.1	40.7	45.3		
25	25-Apr-20	896.5	838.2	936.6	280.1	258.4	295.8	43.0	38.7	46.0		
26	26-Apr-20	907.7	847.4	935.9	283.1	261.4	295.4	43.6	38.9	46.1		
27	27-Apr-20	917.4	889.8	946.3	285.9	273.7	298.2	44.2	41.7	46.8		
28	28-Apr-20	900.8	822.1	932.0	281.1	255.8	293.4	43.2	37.3	45.9		
29	29-Apr-20	900.0	858.8	925.0	280.8	263.6	292.0	43.2	39.7	45.4		
30	30-Apr-20	907.2	850.9	937.5	283.0	262.9	295.9	43.6	39.6	46.0		

									Annex	ure - III			
		1	ADANI PC	WER MA	HARASH	TRA LIMI	TED						
	5 X 660 MW THERMAL POWER PLANT, TIRODA, GONDIA, MAHARASHTRA												
			CEMS DA	ATA for t	he Month	- May'20	020						
		SC	)X(mg/nm	13)	N	DX(mg/nn	n3)	Ρ	M(mg/nm	13)			
3.100.	DATE	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX			
1	1-May-20	891.0	840.4	920.8	278.4	260.4	290.0	42.7	39.1	45.0			
2	2-May-20	881.2	831.7	925.5	273.6	256.3	291.5	41.7	38.3	45.3			
3	3-May-20	897.8	835.3	935.4	279.9	256.1	294.5	43.0	38.2	45.9			
4	4-May-20	897.1	831.5	923.4	280.0	256.2	291.4	43.0	38.2	45.3			
5	5-May-20	902.0	840.1	941.5	280.9	259.0	297.4	43.2	38.8	46.5			
6	6-May-20	909.0	881.0	932.6	282.6	270.3	293.6	43.5	41.1	45.7			
7	7-May-20	911.1	854.0	944.3	284.8	262.9	298.2	44.0	39.6	46.6			
8	8-May-20	888.2	832.7	918.2	276.3	256.5	288.9	42.3	38.3	44.8			
9	9-May-20	897.3	861.7	930.3	279.5	266.9	293.8	42.9	40.4	45.8			
10	10-May-20	892.6	832.0	937.7	277.8	256.8	296.0	42.6	38.4	46.2			
11	11-May-20	878.8	828.6	931.8	273.7	255.0	292.0	41.7	38.0	45.4			
12	12-May-20	873.0	832.8	914.2	272.7	255.1	288.7	41.5	38.0	44.7			
13	13-May-20	850.1	826.4	885.1	264.9	253.9	280.5	40.0	37.8	43.1			
14	14-May-20	851.5	824.1	887.0	265.3	252.6	280.7	40.1	37.5	43.2			
15	15-May-20	847.9	819.1	884.7	263.8	250.9	279.7	39.8	37.2	42.9			
16	16-May-20	844.1	820.4	887.3	262.1	251.2	279.6	39.4	37.2	42.9			
17	17-May-20	857.3	827.1	887.0	266.5	254.2	281.0	40.3	37.8	43.2			
18	18-May-20	861.6	841.3	887.8	268.9	257.6	280.9	40.8	38.5	43.2			
19	19-May-20	856.3	824.6	887.4	267.5	252.9	280.7	40.5	37.6	43.1			
20	20-May-20	860.7	819.7	883.5	269.3	251.2	279.8	40.9	37.2	43.0			
21	21-May-20	848.6	826.3	874.0	264.4	254.1	276.4	39.9	37.8	42.3			
22	22-May-20	857.0	825.2	881.6	267.4	253.3	278.8	40.5	37.7	42.8			
23	23-May-20	858.3	838.8	876.5	268.1	258.4	277.5	40.6	38.7	42.5			
24	24-May-20	861.2	830.0	890.0	268.7	254.1	281.7	40.7	37.8	43.3			
25	25-May-20	887.1	859.2	922.9	275.7	263.1	287.4	42.1	39.6	44.5			
26	26-May-20	911.3	878.0	941.0	282.6	269.4	297.0	43.5	40.9	46.4			
27	27-May-20	880.1	821.4	929.7	273.9	251.5	293.8	41.8	37.3	45.8			
28	28-May-20	857.8	820.9	929.4	267.7	251.6	291.1	40.5	37.3	45.2			
29	29-May-20	893.7	846.8	927.4	278.6	264.2	292.6	42.7	39.8	45.5			
30	30-May-20	911.0	876.1	933.0	283.0	268.9	293.3	43.6	40.8	45.7			
31	31-May-20	885.0	829.8	941.1	274.7	255.5	296.0	41.9	38.1	46.2			

Annexure -	Ш
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			ADANI PO	WER MA	HARASH	TRA LIM	TED			
	5 X 660	MW THE	RMAL PC	WER PL	ANT, TIRC	DDA, GON	IDIA, MAH	ARASHT	RA	
			CEMS D	ATA for t	he Month	h- June'20	020			
S NO	DATE	SC	)X(mg/nn	ı3)	N	OX(mg/ni	m3)	PI	M(mg/nm	13)
5.110.	DATE	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX
1	1-Jun-20	847.7	823.9	886.3	263.9	253.0	280.7	39.8	37.6	43.1
2	2-Jun-20	849.5	826.8	871.5	265.5	254.3	275.8	40.6	37.9	42.2
3	3-Jun-20	847.4	825.0	870.8	264.2	253.3	275.3	39.8	37.4	42.1
4	4-Jun-20	852.0	826.9	873.2	266.1	253.3	276.6	40.2	37.7	42.3
5	5-Jun-20				Unit in s	hutdown	condition			
6	6-Jun-20				Unit in s	hutdown	condition			
7	7-Jun-20				Unit in s	hutdown	condition			
8	8-Jun-20				Unit in s	hutdown	condition			
9	9-Jun-20				Unit in s	hutdown	condition			
10	10-Jun-20				Unit in s	hutdown	condition			
11	11-Jun-20		Unit in shutdown condition							
12	12-Jun-20		Unit in shutdown condition							
13	13-Jun-20		Unit in shutdown condition							
14	14-Jun-20		Unit in shutdown condition							
15	15-Jun-20				Unit in s	hutdown	condition			
16	16-Jun-20				Unit in s	hutdown	condition			
17	17-Jun-20				Unit in s	hutdown	condition			
18	18-Jun-20				Unit in s	hutdown	condition			
19	19-Jun-20				Unit in s	hutdown	condition			
20	20-Jun-20				Unit in s	hutdown	condition			
21	21-Jun-20		Unit in shutdown condition							
22	22-Jun-20		Unit in shutdown condition							
23	23-Jun-20		Unit in shutdown condition							
24	24-Jun-20		Unit in shutdown condition							
25	25-Jun-20		Unit in shutdown condition							
26	26-Jun-20		Unit in shutdown condition							
27	27-Jun-20		Unit in shutdown condition							
28	28-Jun-20		Unit in shutdown condition							
29	29-Jun-20				Unit in s	hutdown	condition			
30	30-Jun-20				Unit in s	hutdown	condition			

Annexure - III

	ADANI POWER MAHARASHTRA LIMITED											
	5 X 660 MW THERMAL POWER PLANT, TIRODA, GONDIA, MAHARASHTRA											
			CEMS D	ATA for t	he Montl	n- July'20	20					
		SC	)X(mg/nn	n3)	N	OX(mg/n	m3)	Р	M(mg/nn	n3)		
3.100.	DATE	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX		
1	1-Jul-20				Unit in s	hutdown	condition					
2	2-Jul-20				Unit in s	hutdown	condition					
3	3-Jul-20				Unit in s	hutdown	condition					
4	4-Jul-20				Unit in s	hutdown	condition					
5	5-Jul-20				Unit in s	hutdown	condition					
6	6-Jul-20				Unit in s	hutdown	condition					
7	7-Jul-20				Unit in s	hutdown	condition					
8	8-Jul-20				Unit in s	hutdown	condition					
9	9-Jul-20				Unit in s	hutdown	condition					
10	10-Jul-20				Unit in s	hutdown	condition					
11	11-Jul-20				Unit in s	hutdown	condition					
12	12-Jul-20		Unit in shutdown condition									
13	13-Jul-20		Unit in shutdown condition									
14	14-Jul-20		Unit in shutdown condition									
15	15-Jul-20		Unit in shutdown condition									
16	16-Jul-20				Unit in s	hutdown	condition					
17	17-Jul-20				Unit in s	hutdown	condition					
18	18-Jul-20				Unit in s	hutdown	condition					
19	19-Jul-20				Unit in s	hutdown	condition					
20	20-Jul-20				Unit in s	hutdown	condition					
21	21-Jul-20				Unit in s	hutdown	condition					
22	22-Jul-20				Unit in s	hutdown	condition					
23	23-Jul-20				Unit in s	hutdown	condition					
24	24-Jul-20				Unit in s	hutdown	condition					
25	25-Jul-20				Unit in s	hutdown	condition					
26	26-Jul-20				Unit in s	hutdown	condition					
27	27-Jul-20				Unit in s	hutdown	condition					
28	28-Jul-20		Unit in shutdown condition									
29	29-Jul-20		Unit in shutdown condition									
30	30-Jul-20				Unit in s	hutdown	condition					
31	31-Jul-20				Unit in s	hutdown	condition					

Annexure - III

	ADANI POWER MAHARASHTRA LIMITED												
5 X 660 MW THERMAL POWER PLANT, TIRODA, GONDIA, MAHARASHTRA													
	CEMS DATA for the Month of August'2020												
	DATE	SC	)X(mg/nn	ı3)	N	OX(mg/ni	n3)	Р	M(mg/nn	n3)			
3.100.	DATE	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX			
1	1-Aug-20				Unit in sl	hutdown	condition						
2	2-Aug-20				Unit in sl	hutdown	condition						
3	3-Aug-20				Unit in sl	hutdown	condition						
4	4-Aug-20				Unit in sl	hutdown	condition						
5	5-Aug-20				Unit in sl	hutdown	condition						
6	6-Aug-20				Unit in sl	hutdown	condition						
7	7-Aug-20				Unit in sl	hutdown	condition						
8	8-Aug-20				Unit in sl	hutdown	condition						
9	9-Aug-20				Unit in sl	hutdown	condition						
10	10-Aug-20				Unit in sl	hutdown	condition						
11	11-Aug-20				Unit in sl	hutdown	condition						
12	12-Aug-20				Unit in sl	hutdown	condition						
13	13-Aug-20				Unit in sl	hutdown	condition						
14	14-Aug-20				Unit in sl	hutdown	condition						
15	15-Aug-20				Unit in sl	hutdown	condition						
16	16-Aug-20				Unit in sl	hutdown	condition						
17	17-Aug-20				Unit in sl	hutdown	condition						
18	18-Aug-20				Unit in sl	hutdown	condition						
19	19-Aug-20				Unit in sl	hutdown	condition						
20	20-Aug-20				Unit in sl	hutdown	condition						
21	21-Aug-20				Unit in sl	hutdown	condition						
22	22-Aug-20				Unit in sl	hutdown	condition						
23	23-Aug-20				Unit in sl	hutdown	condition						
24	24-Aug-20				Unit in sl	hutdown	condition						
25	25-Aug-20				Unit in sl	hutdown	condition						
26	26-Aug-20				Unit in sl	hutdown	condition						
27	27-Aug-20				Unit in sl	hutdown	condition						
28	28-Aug-20				Unit in sl	hutdown	condition						
29	29-Aug-20				Unit in sl	hutdown	condition						
30	30-Aug-20				Unit in sl	hutdown	condition						
31	31-Aug-20				Unit in sl	hutdown	condition						

Annexure - III

	ADANI POWER MAHARASHTRA LIMITED											
	5 X 660 MW THERMAL POWER PLANT, TIRODA, GONDIA, MAHARASHTRA											
CEMS DATA for the Month of September'2020												
	DATE	SC	)X(mg/nn	ı3)	N	OX(mg/nr	n3)	P	M(mg/nm	3)		
3.100.	DATE	AVG	AVG MIN MAX AVG MIN MAX AVG MIN MAX									
1	1-Sep-20				Unit in sl	hutdown	condition					
2	2-Sep-20				Unit in sl	hutdown	condition					
3	3-Sep-20				Unit in sl	hutdown	condition					
4	4-Sep-20				Unit in sl	hutdown	condition					
5	5-Sep-20				Unit in sl	hutdown	condition					
6	6-Sep-20				Unit in sl	hutdown	condition					
7	7-Sep-20				Unit in sl	hutdown	condition					
8	8-Sep-20				Unit in sl	hutdown	condition					
9	9-Sep-20				Unit in sl	hutdown	condition					
10	10-Sep-20		Unit in shutdown condition									
11	11-Sep-20	861.17	841.19	886.79	252.67	243.1	265.29	40.56	38.31	42.79		
12	12-Sep-20	867.8	844.96	890.38	255.3	243.96	266.45	41.09	38.79	43.29		
13	13-Sep-20	Unit in shutdown condition										
14	14-Sep-20		Unit in shutdown condition									
15	15-Sep-20				Unit in sl	hutdown	condition					
16	16-Sep-20	911.79	877.84	971.62	268.26	253.46	291.19	43.65	40.69	48.24		
17	17-Sep-20	904.21	882.23	946.48	265.64	255.37	278.35	43.13	41.07	45.67		
18	18-Sep-20	905.02	877.38	965.51	266.52	253.32	289	43.31	40.66	47.8		
19	19-Sep-20	912.66	882.98	952.7	268.59	257.66	281.74	43.71	41.53	46.35		
20	20-Sep-20	900.59	872.67	952.93	264.12	251.81	282.82	42.8	40.36	46.56		
21	21-Sep-20	928.77	883.95	969.1	274.3	256.09	290.13	44.91	41.22	48.03		
22	22-Sep-20	911.96	878.66	964.99	268.63	254.41	287.98	43.75	40.88	47.6		
23	23-Sep-20	909.72	873.11	943.86	267.96	252.31	280.5	43.56	40.46	46.1		
24	24-Sep-20	923.31	883.9	955.16	272.01	257.24	285.58	44.44	41.45	47.12		
25	25-Sep-20	914.81	875.31	967.63	268.07	253.21	288.99	43.6	40.64	47.8		
26	26-Sep-20	899.33	899.33 875.3 942.52 264.37 253.33 279.33 42.85 40.67 45.87									
27	27-Sep-20	908.78	908.78 872.04 962.12 266.97 251.95 286.39 43.38 40.39 47.28									
28	28-Sep-20	918.16	918.16 880.49 964.25 270.59 255.21 287.47 44.1 41.04 47.49									
29	29-Sep-20	925.89	871.25	965.94	272.51	251.67	287.77	44.51	40.63	47.55		
30	30-Sep-20	927.68	874.68	974.33	273.29	253.13	291.69	44.66	40.63	48.34		

### Monthly Abstract of Ash Generatin and Utilization

(For the Period from April ,2020 to September ,2020)

Name of Power Utility: Adani Power Maharashtra Limited Installed Capacity (Total): 3300 MW

.

Name of Thermal Power Plant: Tiroda Thermal Power Plant

### PERIOD OF REPORT- April, 2020 to September, 2020

[All Quantities in Million Tonne] ASH GENERATION AND UTILIZATION MODE OF ASH UTILIZATION AND UTILIZATION IN EACH MODE g of Fly Ash / Bricks/ 'Tiles etc. οv + In construction of Highways & Roads including Flyovers In Hydro Power Sector in RCC Dam Construction ę, Part replacement of cement in concrete Others (Mount Formation in HCSD + Fine Ash Export) Generation in manufacture of Portland Pozzolana Utilization Ash dyke raising Utilization consumed In Agriculture/ Waste land Devlopment Ash content of I Mine filling Area Ň. Cement reclamation Month coal S. n making c based/ E Blocks/ T lying / Ash Ash aße Coal ⊆ Ę È Ę \* 5 5 (1) (2) (3) (4) (5) (6) (7) (8) (9) (11) (13) (17) (10) (12) (14) (15) (16) 1 Apr-20 1,27951 33.15 0.42416 0.26001 61.30 0.00461 0.00389 0.00539 0.00000 0.00000 0.00000 0.05120 0.00000 0.00000 0.19491 2 May-20 1.40316 32.71 0.45897 0.63400 138.13 0.00691 0.04559 0.00890 0.00000 0.00000 0.02500 0.47935 0.00000 0.00117 0.06708 3 0.70437 Jun-20 33.23 0.23406 0.38354 163.86 0.00482 0.09011 0.00588 0.00000 0.00000 0.00000 0.26594 0.00000 0.00138 0.01540 4 Jul-20 0.54526 32.98 0.17983 0.22406 124.60 0.00497 0.08422 0.00232 0.00000 0.00000 0.04900 0.07143 0.00062 0.00037 0.01113 5 0.54410 Aug-20 33.25 0.18091 0.14099 77.93 0.00343 0.07949 0.00102 0.00000 0.000000 0.00000 0.03604 0.00000 0.02100 0.00000 6 Sep-20 0.86547 32.27 0.27925 0.23825 85.32 0.00729 0.11876 0.00255 0.00000 0.00000 0.00000 0.09333 0.00000 0.00000 0.01632 TOTAL 5.34188 32,89 1,75718 1.88084 107.04 0.03202 0.42207 0.02607 0.00000 0.00000 0.07400 0.99730 0.00062 0.00293 0.32583

Abbreviations:-

MW-Mega Watt

TPS- Thermal Power Station

KM- Kilometre

MT- Million Tonne

Kcl- Kilocalories

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

Page 1 of 2

### ENV/SWT/2020-21/045/2

Date: 16.09.2020

## **ISSUED TO:**

# **M/s ADANI POWER MAHARASHTRA LIMITED**

Plot no. - A1, Tirora Growth Center, MIDC, Tirora,

Dist.: Gondia, Maharashtra - 441 911. India

# Sample Particulars : Bottom Ash Sample

Sample Registration Date	:	1.09.2020	Analysis Starting Da	te :	2.09.2020
Quantity received		2 kg	Analysis Completion	Date :	16.09.2020
Sample Type:	:	Solid Waste	Sampled by	2	EAEPL Representative

### **TEST RESULTS**

Sr. No.	Test Parameters	Measurement Unit	Results
1	Alumina (as Al <sub>2</sub> O <sub>3</sub> )	% by mass	19.74
2	Iron Oxide (as Fe <sub>2</sub> O <sub>3</sub> )	% by mass	5.48
3	Silica (as SiO <sub>2</sub> )	% by mass	48.3
4	Reactive Silica	% by mass	0.0119
5	Magnesium Oxide (as MgO)	% by mass	1.67
6	Sulphur Trioxide (as SO <sub>3</sub> )	% by mass	0.080
7	Alkalies (as Na <sub>2</sub> O)	% by mass	2.63
8	Chloride (as Cl)	% by mass	0.042
9	Loss on ignition (as LOI)	% by mass	0.007
10	Cadmium	mg/kg	0.12
11	Chromium	mg/kg	17.4
12	Arsenic	mg/kg	0.43
13	Mercury	mg/kg	0.041
14	Selenium	mg/kg	Nil
15	Cyanide	mg/kg	Nil
16	Cobalt	mg/kg	11.5
17	Copper	mg/kg	26.9
18	Lead	mg/kg	19.8
19	Molybdenum	mg/kg	Nil
20	Nickel	mg/kg	28,5
21	Tin	mg/kg	NiI

For Enviro Analysts & Engineers Pvt. Ltd.

**Authorized Signatory** 

Nagpur Branch : Shiv Kunj, Bunglow No. 65, Old Verma Layout, Ambazari, Nagpur - 440 010.

Pune Branch: Flat No. 11, Tarankit Co. Op. Hsg. Soc. Ltd., City S. No. 209 B/1 Sadashiv Peth

Lab: Row House No. 2, Shalom Garden, Opp. Kanakia College, 100 Feet Kanakia Roa

Workshop : Plot No. E - 122, MIDC Tarapur, Raie







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

Page 2 of 2

# ENV/SWT/2020-21/045/2

Date: 16.09.2020

# **ISSUED TO:**

# **M/s ADANI POWER MAHARASHTRA LIMITED**

Plot no. - A1, Tirora Growth Center, MIDC, Tirora,

Dist.: Gondia, Maharashtra – 441 911. India

# Sample Particulars : Bottom Ash Sample

Sample Registration Date	:	1.09.2020	Analysis Starting Dat	с:	2.09.2020
Quantity received	:	2 kg	Analysis Completion	Date :	16.09.2020
Sample Type:	:	Solid Waste	Sampled by	:	EAEPL Representative

## TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
22	Barium	mg/kg	303
23	Calcium	mg/kg	135881
24	Iron	mg/kg	41101.2
25	Zinc	mg/kg	54.1
26	Aluminium	mg/kg	104424.6
27	Manganese	mg/kg	118.8
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

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

Page 1 of 2

### ENV/SWT/2020-21/045 /1

Date: 16.09.2020

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

# Sample Particulars : Pond Ash Sample

Sample Registration Date	:	1.09.2020	Analysis Starting Date	:	2.09.2020
Quantity received	:	2 kg	Analysis Completion Date	:	16.09.2020
Sample Type:	:	Solid Waste	Sampled by	:	EAEPL Representative

### TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
1	Alumina (as Al <sub>2</sub> O <sub>3</sub> )	% by mass	22.75
2	Iron Oxide (as Fe <sub>2</sub> O <sub>3</sub> )	% by mass	4.41
3	Silica (as SiO <sub>2</sub> )	% by mass	59.30
4	Reactive Silica	% by mass	0.026
5	Magnesium Oxide (as MgO)	% by mass	1.23
6	Sulphur Trioxide (as SO <sub>3</sub> )	% by mass	0.081
7	Alkalies (as Na <sub>2</sub> O)	% by mass	3.17
8	Chloride (as Cl)	% by mass	0.038
9	Loss on ignition (as LOI)	% by mass	0.057
10	Cadmium	mg/kg	0.21
11	Chromium	mg/kg	20.7
12	Arsenic	mg/kg	0.96
13	Mercury	mg/kg	0.088
14	Selenium	mg/kg	Nil
15	Cyanide	mg/kg	Nil
16	Cobalt	mg/kg	11.7
17	Copper	mg/kg	26.6
18	Lead	mg/kg	23.2
19	Molybdenum	mg/kg	Nil
20	Nickel	mg/kg	25.1
21	Tin	mg/kg	Nil

For Enviro Analysts & Engineers Pvt. Ltd.

Authorized Signatory

agpur Branch : niv Kunj, Bunglow No. 65, Pune Branch: Flat No. 11,

Lab : Work Row House No. 2, Shalom Garden, Plot N

Workshop : Plot No. E - 122







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

Page 2 of 2

ENV/SWT/2020-21/045 /1

Date: 16.09.2020

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

# Sample Particulars : Pond Ash Sample

Sample Registration Date		18.02.2020	Analysis Starting Date	:	21.02.2020
Quantity received	į	2 kg	Analysis Completion I	Date :	14.03.2020
Sample Type:		Solid Waste	Sampled by	:	EAEPL Representative

# TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
22	Barium	mg/kg	282
23	Calcium	mg/kg	118456
24	Iron	mg/kg	30825.9
25	Zinc	mg/kg	49.3
26	Aluminium	mg/kg	120347.50
27	Manganese	mg/kg	119.6
28	Antimony	mg/kg	Nil
29	Beryllium	mg/kg	Nil

Note: 1. Results relate to tested sample only.

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

Nagpur Branch : Shiv Kunj, Bunglow No. 65. Old Verma Layout, Ambazari, Pune Branch: Flat No. 11, Tarankit Co. Op. Hsg. Soc. Ltd., Citric D. M. 2020, Bld., Sociation, Bath Lab : Row House No. 2, Shalom Garden, Opp. Kanakia College,

Workshop : Plot No. E - 122, MIDC Tarapur,





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Page 1 of 2

# ENV/SWT/2020-21/045

Date: 16.09.2020

# ISSUED TO: M/s ADANI POWER MAHARASHTRA LIMITED

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

# Sample Particulars : Fly Ash Sample

Sample Registration Date	;	1.09.2020	Analysis Starting Date	:	2.09.2020
Quantity received	:	2 kg	Analysis Completion I	Date :	16.09.2020
Sample Type:	:	Solid Waste	Sampled by	:	EAEPL Representative

## TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
I	Alumina (as Al <sub>2</sub> O <sub>3</sub> )	% by mass	24.12
2	Iron Oxide (as Fe <sub>2</sub> O <sub>3</sub> )	% by mass	5.03
3	Silica (as SiO <sub>2</sub> )	% by mass	58.8
4	Reactive Silica	% by mass	0.031
5	Magnesium Oxide (as MgO)	% by mass	1.62
6	Sulphur Trioxide (as SO <sub>3</sub> )	% by mass	0.07
7	Alkalies (as Na <sub>2</sub> O)	% by mass	3.22
8	Chloride (as Cl)	% by mass	0.038
9	Loss on ignition (as LOI)	% by mass	0.05
10	Cadmium	mg/kg	0.29
11	Chromium	mg/kg	19.6
12	Arsenic	mg/kg	1.07
13	Mercury	mg/kg	0.095
14	Selenium	mg/kg	Nil
15	Cyanide	mg/kg	Nil
16	Cobalt	mg/kg	15.8
17	Copper	mg/kg	26.6
18	Lead	mg/kg	21.7
19	Molybdenum	mg/kg	Nil
20	Nickel	mg/kg	24.9
21	Tin	mg/kg	Nil

For Enviro Analysts & Engineers Pvt. Ltd.

Authorized Signatory

Nagpur Branch : Shiv Kunj, Bunglow No. 65, Old Verma Lavout, Ambazari. Pune Branch: Flat No. 11, Tarankit Co. Op. Hsg. Soc. Ltd. Lab : Row House No. 2, Shalom Garden, Ono, Kanakia College

Workshop : Plot No. E - 122, MIDC Tarapur





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Page 2 of 2

# ENV/SWT/2020-21/045

Date: 16.09.2020

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

# Sample Particulars : Fly Ash Sample

Sample Registration Date	:	1.09.2020	Analysis Starting Date	:	2.09.2020
Quantity received	:	2 kg	Analysis Completion Da	te:	16.09.2020
Sample Type:	:	Solid Waste	Sampled by	:	EAEPL Representative

# TEST RESULTS

Sr. No.	Test Parameters	Measurement Unit	Results
22	Barium	mg/kg	284
23	Calcium	mg/kg	125106
24	Iron	mg/kg	35159.7
25	Zinc	mg/kg	55.3
26 Aluminium		mg/kg	127594.80
27	Manganese	mg/kg	130.3
28	Antimony	mg/kg	Nil
29	Beryllium	mg/kg	Nil

Note: 1. Results relate to tested sample only.

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

Pune Branch: Flat No. 11, Tarankit Co. Op, Hsg. Soc. Ltd. Lab: W Row House No. 2, Shalom Garden, P Opp. Kanakia College

Workshop : Plot No. E - 122, MIDC Tarapur



# ADANI POWER MAHARSHTRA LIMITED, TIRORA

# **GREEN BELT & PLANTATION DETAILS**

Total Area Covered: 258 HA Tree Planted: 513367 Nos. Shrubs Planted: 59884 Sq. Meter Green Carpet: 3, 22,194 Sq. Meter

### Plant & Shrubs Species used for Green Belt Development

Shrubs	Tree Species
Bogunvellia	Psidium guavajava (Amarud)
Rose	Punica granatum (Anar)
Furcaria	Manilkara zapota (Chikoo)
Cassia biflora	Phyllanthus emblica (Aonla)
Lagerstromia indica	Tamarindus indica (Imali)
Shrubs	Mangifera indica (Mango)
Flower Beds.	Lemon
Lawn	Carissa carandas
Exora Tall	Bottle Brush
Golden Ficus	Casuarina
Ficus panda	Samania saman
Group plants	Ficus religeosa
Nerium Bell (Yellow Ghanti Kanher)	Casia siamia
Hibiscus	Bauhinia purpuria
Musanda	Ficus bengalensis
Nolino	Delonix regia
Furcaria	Azadiracta Indica
Junifer	Spathodia
Ficus Golden	Peltaphorum
Ficus blackiana	Delonix regia
Headge	Acacia auriculiformis
	Jackranda
	Peltaphorum
	Neolamarckia cadamba
	Palms (Coconut, Fistal palm, Royal Palm, etc)
	Ficus Golden
	Rain Tree
	Mimusops elengii
	Cassia fistula
	Tectona grandis (Teak)
	Wad (Bargad)
	Peepal
	Neem
	Bamboo
	Satparni
	Gulmohar
	Australian babul








































































# ADANI POWER MAHARSHTRA LIMITED, TIRORA Annexure-VI







# Adani Foundation

# CSR TIRODA Six monthly report (APR-SEP) FY- 2020-21

## 1. Fight against COVID-19

On the backdrop of COVID-19 lockdown Adani Foundation provided essential support to needy. AF reached out to needy families and frontline worriers who were tackling the COVID-19 pandemic. We Supported Hospitals, Police Department & Government Offices. In COVID-19 pandemic most of the migrant labours do not have ration cards and facing difficulties to put food on the table. AF reached out to these families in need. 7635+ ration kits provided to daily migrant labors. Distributed 4920 3 ply mask, 574liter Liquid Handwash, Provided 1271Liter Sodium Hydrochloride Solution for sanitization in villages, 4320 Hand Gloves to Corona frontline workers, 475 N-95 masks distributed, 205 PPE kit to Government hospitals.



#### 2. Mask Making and Distribution

To provide essential services during Corona Pandemic to needy people. In COVID-19 pandemic the mask plays a crucial role to protect from virus spread. In the peripheral villages there is a shortage of masks to fight the spread of COVID-19 pandemic. Thus to increase an availability of masks, Adani Foundation with the guidance of respected Mrs. Ratna K. Biswas madam initiated the process of making cotton cloths masks. The mask making order has been given to village women SHG members who are trained under Adani Foundations tailoring training. Now women are making three layered cotton cloth face masks for Adani Foundation. Through this initiatives women are also got the income source. Total 1734+ masks prepared by SHG women. Before the selling, all masks have been treated under Ultraviolet rays for disinfection. In peripheral villages, these 'UV Treated Three Layered Cotton Cloth Face Masks' distribution and selling are ongoing.





**Special Activity** 

### 1. Birthday Celebration- Respected Dr. Priti Adani Ma'am

AF celebrated birthday of Respected Dr. Priti Adani Ma'am's on 29<sup>th</sup> August 2020. The birthday was celebrated with Tribal Community at Mangezari village. The Tribal youth have shown their joy and respect for ma'am by performing their Cultural Gondi Dance. We honored her as an '*ALTRUISTIC PERSON*'. To mark the celebration APML EVPs distributed blankets to Ghoti Villagers.





### 2. Van Mahotsav Saptah

Adani Foundation celebrated Van Mahotsav Saptah- Tree Plantation Festival- 2020 from 1st July- 7th July-20. On this occasion the 17-20 varieties of tree saplings were distributed in villages, the sapling includes Spathodia, Saptparni, Raintree, Karanj, Ritha, Neem, Tikoma, Amaltas, Bohaniya, Jackranda, Paltrafom, Behda, Pipal, Banyan, Bida, Bahunia, Gulmohar and other. Total 1570 saplings have been planted in nearby villages with the active participation of Grampanchayat and Villagers.





3. International Yoga Day Celebration-

Yoga plays an important role in promoting health in a holistic manner by improving physical, mental, emotional and spiritual health. A holistic approach, Yoga targets all the different systems of the body and mind. The international Yoga Day was celebrated on 21<sup>th</sup> Jun 2020 on the theme of "Yoga for Health- Yoga at Home" at Kashi Ghat, Garada by taking care of all the precautions & guidelines of COVID-19. With very few public gathering about 20 AF team and villagers practiced yoga under the guidance of Yoga



Teacher- Abani Kumar Panigrahi-APML employee volunteer. Yoga session conducted with postures, breathing techniques and meditation. Young and elderly have shown a greater response and taken resolution to practice it in their daily lifestyle.

## I- Education

## 1. Navodaya Coaching Classes-

Navodaya Coaching Classes started to nurture talent from rural area and support talented students from deprived families to get into Navodaya School. AF has opened special coaching classes for these students in Government school. In COVID 19 Lockdown period, all schools and classes are closed, but to utilize students' time through effective way of learning, AF initiated take online Navoyada Coaching classes for enrolled students. Accordingly, the online classes have been started at Gumadhavda, Birsi and Kawlewada centers for 2020-21 batch. This FY 2020-21 total 34 students enrolled at 3 centers Birsi- 12, Gumadhawada-12 & Kawalewada-10. Daily 2 hours of online classes are conducted on Google meet application, Students are actively learning through online classes. Additionally teacher has also started doing one to one interaction with students & solving students' queries by maintaining social distancing.





2. Pre- Training of Youths for Army and Police services-

Pre-Training of Youths for Army and Police services started with an objective to transform young candidates into academically proficient, physically fit, mentally strong individuals bursting with energy and confidence and ready to face any challenge in life. AF conducted total 3 months training association with police department. Three months Pre-police training has benefitting the youths to appear in the Police and army services examination. Looking at previous positive results of trained youths, aspiring village



youths are requested AF to start the online classes in this COVID-19 lockdown period. Thus, as per the request of youth, AF started online pre-police training classes with the support of Police Department. Total 100 students are attending the online training classes. The respective resource person teaching the exam syllabus online and conducts weekly online tests for the students.

## 3. Aamchi Shala Adarsh Shala Competition-

An interschool competition initiated to enhance the quality education of government Zilla Parishad School's through community participation. Started **ASAS-19-20** competition school evaluation which was on hold due to COVID-19 pandemic. The evaluation process completed as per the Samagra Shiksha, Z.P. Gondia education department letter. The District evaluation committee had completed school evaluation process of total 255 participated schools from 85 centres. 8 first ranked schools from 8 blocks evaluated for final result. Declared 4 winner schools from Tiroda, Sadak-Arjuni, Gondia and Deori Block. Two schools won the 1<sup>st</sup> prize.

st 1 - Z.P. Upper Primary School, Kodelohara, Tiroda

1 - Z.P. Upper Primary School, Parsodi, Sadak Arjuni



2 Z.P. Upper Primary Hindi School, Chipiya, Gondia

3 Z.P. Upper Primary School, Sawali, Deori







Scholarship distributions for meritorious students have started to felicitate and appreciate the students who are doing well in their academics and also increased the participation of other students to excel in their studies and other exams. In this program we awards scholarship of Rs. 6000 per student/year to meritorious 10th class students for the period of 2 years who scored outstanding marks in SSC exam. This Quarter started Scholarship Process. After the declaration of SSC results, started the selection of 10th class meritorious students from nearby villages for scholarship distribution. Completed form distribution and form collection process. 80 forms collected from students.

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adani अदाणी फाठडेशन, विरोड आदाणी फाऊंडेशन शिष्यमुती (आर पत्र मार पत्र) प्रकाश जामानाल गरांत्रात्रों ग वर् २००४ में विंग त्यते कारेक्सरों ४ व्यवसाल त्यरेसर्गी अर्थ्राया स्टब्स् से २ प्रवेश स्वाति तेवा वत्र प्रकार २०११ २ कार्यकार ३६ २० १ ञ्चलतुः 36948 विद्यानी आगम आहे का?
विद्यानी विश्वया स्त्री का पालप de/mth ant mia a min Massing 12 th ments of oil with the अन्त्रमा साम्यज्युत्व निर्देशीयाः तन्त्रस्य (क्षारे विद्याल्यों ने संवर्ध आवश्यम्बर 53141 10200060 फ्रेंग्स्स् के क ATTENT ON HE COSE # 7 C स्मीपत्र गींगी ये प्रतियों प्रस्त असन जन्मन - mind at HIN THE PROPERTY OF THE PROPERTY OF

## 5. E-Learning Package Distribution -

The E-Learning program (Gyan Jyoti) initiated as part of efforts in the Education head to modernize the education sector, exposure of rural students to new technologies aimed completely at improving the quality of learning & education in an innovative & interactive way. In this quarter with the start of this activity completed up-gradation of E-Learning syllabus in 45 schools. In COVID-19 pandemic teachers are taking online classes with the help of E-Learning kit. Block education officer has given the responsibility to school Techno-savvy teachers to take online classes through our E-learning kit syllabus at Cluster level.



II- Community Health

## 1. Mobile Health Care Unit (MHCU)-

Providing quality healthcare service at the doorstep of villages. Two MHCUs are operational – with partnership of Helpage India Organization. In COVID-19 pandemic situation 2 MHCUs are working for medical emergency which is transporting Corona Patients from villages to the treatment facilities- Hospital.

- Provided referral service to **1080** COVID-19 positive patients and their family members.
- In lockdown period MHCU benefitted 1563 patients (779-Male & 784-Female)
- The General category and Cardio vascular & life style disease patients were found more as compared to other diseases.
- Started treatment of B.P., Hypertension patients at village level.

## 2. Poor patient Assistant programme-

To provide financial assistance to deprived families in critical illness. For assisting poor patients the form collection process has been completed. Provided financial aid reimbursement to following patients.

- 1. Mr. Ashok Singanjude Accident case
- Mr. Chandrashekhar Rasdas Gajbhiye-Brain Tumor
- 3. Mrs. Shyamklabai Manohar Chaudhary- Accident
- 4. Mr. Sudhor Baburao Singanjude- Accident case
- 5. Mr. Sunil Pardhi Brain Paralysis











SuPoshan program working to eradicate malnourishment among children below five years of age, to improve health status in reproductive age women and adolescence girls. In COVID-19 pandemic, Sanginis continuously monitoring health situation of children, reproductive women, breastfeeding mothers and Adolescence girls. Sanginis spread awareness on social distancing, uses of mask, best hand-wash practices, and uses of Sanitizers.



#### 3.1 World Menstrual Hygiene Day-



On the occasion of World Menstrual Hygiene Day, 28th May 2020, Sanginis had spread awareness on Menstrual Hygiene among the small group of Adolescence Girls by maintaining social distancing & adhering to the guidelines of COVID-19.

**3.2 World Breastfeeding Week-** Celebrated World Breastfeeding Week from 1<sup>st</sup> -7<sup>th</sup> August 20 on the theme of "Support breastfeeding for a healthier planet" by Sanginis, by taking all the COVID-19 norms. The awareness has been spread on best breastfeeding practices amongst the reproductive women and breastfeeding mothers.

- ➤ 466 beneficiaries covered.
- > 132 Kitchen Garden seeds packets distributed.
- 41 participated in Drawing and essay/slogan competition on Breastfeeding
- > 28 of lactating mothers and pregnant women counselled telephonically.





**3.2 National Nutrition Month (SuPoshan Mah)** - By taking all the precautions of COVID-19 norms, Sanginis celebrated National Nutrition month from 1<sup>st</sup>to 30<sup>th</sup> September 2020 in nearby 13 villages- Tiroda, Chikhali, Nimgaon Indora, Khadki, Aalezari, Pinkepar, Jamuniya, Chirekhani, Sukali, and Khamari. Nutrition month was celebrated on the theme of '*Eat Right, Bite by Bite*', on this occasion conducted activities like- Rangoli making- 6 participated, Drawing/Quiz competition- 5 participated, distributed 160 kitchen garden seeds packets to women, 12- Sanginis gave cooking demonstration on nutritious dishes, conducted Food exhibition in 6 villages and also conducted rally in 2 villages. To check the nutrition status completed Tele counselling of 69 women and children (Women- 25, Adolescent- 20 and children (0-5)-24.



## 4. Special Activity- Wheelchair Support to physically disable person-

Adani Foundation donated 9 electric Wheelchair to 9 physically disable persons. 6 villages benefitted.

Sr. No.	Name & Age	Wheelchair Type
1	Ms. Aarti M. Ninane (23)	E-Tricycle
2	Ms. Maithili M. Ninave (17)	Tricycle
3	Mr. Ashwajit Bansod (24)	Tricycle
4	Mr. Dinesh Rahangdale (27)	Tricycle
5	Mr. Yogeswar Lade (22)	Tricycle
6	Mr. Kisan M. Thakare (59)	Tricycle Manual
7	Mr. Jasdeo P. Chaudhari (45)	Tricycle Manual
8	Ms. Anita C. Patle (35)	E-Tricycle
9.	Mr. Walmik Kanhaji Thakare (52)	E-Tricycle



## III- Sustainable Livelihood Development

**1. Organic System Rice Intensification (SRI)** – This year, to demonstrate implementation of 100% SRI principles we have developed SRI demonstration plots aiming to get maximum yield (more than 25-30qtl. /acre). However, deployed FPC as a SRI implementing agency under the guidance & support of AF and Agriculture department. Selected 37 progressive farmers from villages. With the start of monsoon, SRI paddy farming process had started in full swing. Now SRI paddy are at the seed bearing stage and Harvesting will start in month of Nov-20.

- AF distributed seeds 3kg per farmers.
- SRI transplantation training had gave to 40 women.
- Distributed Pheromone trap to all 37 farmers 2 each.
- Distributed 200lit Drum to 37 farmers for organic pesticides making.
  By continuous monitoring farmers are maintaining water level after paddy transplantation.
- Farmers using shrub plant Senna tora (Tarota/Dhencha) leaves as a green manure in paddy field.
- Farmers completed the SRI Weeding Process.
- To control pesticides Spraying of Dashparni arc, Jivamrut & Aangiastra are ongoing as per the need.





## 2. Organic Based Integrated Farming-

Organic Based Integrated Farming started to increase economic source of small and marginal farmers through multi-cropping integrated organic based farming by optimum utilization of locally available resources. Lemon and Tur crops are planted as an organic integrated farming. However, it is planned to cultivate Mong Crop in summer season. The 8 farmers planted 880 PDKV Sarbati Lime Saplings and Tur (as an intercrops) over 8 acres of farmland. Now both crops are growing healthily.

- Completed farmer's selection & inaugurated organic based integrated farming.
- Completed land preparation and layout making and digging work for lemon saplings
- Planted Tur seeds and prepared nursery.
- Completed Tur & Lemon saplings plantation work.

## 3. Farmers Producer Company-(FPC) -

## 3.1 Milk Collection and Chilling Centre (MC&CC)-

Establish a Farmer's Centric and Functional Farmers Producer Organization on Milk processing Unit and to give marketing platform to the small scale farmers. Established three MC&CC at Jamuniya/Berdipar, Chikhali & Kawlewada. Completed the branding & Logo process of Dairy- Named Tiroda Farmers Producers Company Limited TFPCL'S-Anuradha Dairy- Milk Collection and Chilling Centre. Anuradha Dairy all 3 MC&CC are ready for functioning started milk collection at centers. Installed Khoya Machine, BMC, Adulterations Unit and other.









**3.2 Established Agriculture Equipment bank** – Adani Foundation has supported Tiroda Farmers Producer Company Ltd. For establishing Agriculture equipment bank to support local farmers. Initially tractor and its equipment purchased.



#### 4. Animal Husbandry related Initiatives -

The objective is to develop livelihood of the farmers through breed improvement program. Two livestock development centers (LDC) are established in Khairbodi and Kawalewada which covered 26 villages. The LDCs are providing the services like Artificial Insemination (AI), Sorted Semen Sex (SSS) AI, and Pregnancy Diagnose (PD) as well as cattle health checkup camps.

	Activity	Apr-Sep 2020-21	Cumulative 2017-20
1	AI	708	3783
2	AI (Sorted Sex semen)	304	454
3	PD	583	1971
4	PD (Sorted Sex semen)	204	204
5	Fodder seeds	0	0
6	Meeting	0	0
7	Training	0	0
8	Cattle Health Check-up Camps	0	0
9	Calving	316	1050
10	SSS Calving	12 (Female, Male-0)	12
11	Hybrid Nepier fodder	43	43



**4.1 Cattle Vaccination in Villages**- Lumpy skin disease (LSD) on cattle has started rapidly spreading in Tiroda block. It's an infectious, eruptive and occasionally fatal disease of cattle. It causes nodules on the skin and other part of the body. Thus, to prevent the cattle from this severe disease, Adani Foundation- LDC has started vaccination camps in villages. Thus completed vaccination of total 2740 cattle from 10 villages.



## 4.2 Fodder Crop Plantation-



Completed the plantation of Hybrid Nepier crop by 43 farmers.

#### 4.3 Cow Based Livelihood-

Objective to promote organic farming and reduce the cost of cultivation and increase the production. Local Cow based farming in the villages which mainly focuses on utilization of Cow dung and Cow urine. This project has been implementing with the collaboration of Gou-Anusandhan Center, Devalapar. 12 farmers brought 11-Cows and 23-Bullocks from the center.

#### 4.4. Lac Cultivation-

AF promoting scientific method of lac cultivation to the group of farmers who has access to Lac Host- Palas trees. 200 farmers are involved in Lac Cultivation, the scientific production method and continuous technical support made farmers to get more Lac Production. From one tree they are getting 4kg-5kg of lac, and also get good price and market at Gondia getting the price of Rs. 100-





200/kg. In 2019-20, 200 farmers cultivated-1103 kg Lac from 6000 flame trees. Net Profit-Rs. 3992/farmer. Farmers cultivating 2nd round of lac over 6000.

## 5. Income generation activities


**5.1 Lac Bangles Making –** Adani Foundation Supporting 45 SHG women for Lac Bangle Making. Women are making new designs of lac Kada and Bangles. Lac Bangle making Programme are ongoing through Buy back. We have completed the registration process of "Aadhirakshi" brand of women farmer Producer Company on amazon.in, and selling is ongoing. Women are making it on demand by women from nearby villages. New designed 'Veni Bangles, Stone and Multicolor Bangles are making on demand by women from nearby villages.

#### 5.2 Agarbatti Production-

The objectives of program was Capacity building and economic development of women self-help groups. 20 Agarbatti Machines have been distributed in 6 villages (Garada, Ramatola, Tikaramtola, Mendipur, Gumadhawada, & Tiroda). AF also gave training on operation of machines. As a result total 60 women are making Agarbatti very skillfully. In COVID-19 lockdown period the Agarbatti Production has been increasing, beneficiaries are spending more time on producing Agarbatti and earning income from home only. In six months 34,281 Kg total Agarbatti Produced and sold in a





rate of Rs. Rs. 20,00,709/-

**5.3 Mushroom Cultivation:** - Oyster Mushroom spawn making process has been started at Mushroom Spawn Unit & started to supply spawn in nearby villages SHG's and other beneficiaries. Oyster Mushroom spawn making process has been started at Mushroom Spawn Unit & started to supply spawn in nearby villages SHG's and other beneficiaries. The beneficiaries have started the Mushroom bed making process with the start of winter.

#### 5.4 New Initiative- Purse making & selling -

Under the guidance of respected Mrs. Ratna K. Biswas madam, SHG women have initiated new design purse making activity. Shantigram- Navya Club women had gave an order to SHG women for purse making. SHG women has made total 60 new design purses as per the order. Through this initiative women SHG members learned the new skill to enhance their income sources.



### Media Coverage



### लम्पी लसीकरण मोहिमेला सुरूवात अवानी फाउंडेशन 3.0

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उपक्रम : जनावरांचे कृत्रिम रेतन, दुग्ध व्यवसाय वाढीसाठी प्रयत्न

10 तिरोडा = प्रतिनिधी

Salarilly

विश्वासक तालुक्यातील जनावरांवर संवी या आन्तरात्रा प्राहुपांव योत्साये हिंसूय येत आहे वालुई प्रमुपलंक जेलकरी चाल्यावने जाहेत प्रती दावल रोत. अटानी यांत्राजीवराज्या तरीने परिवरतील नावामध्ये लगी जनीवरण मोहिमेला सुरुवात करण्यात आली आहे. या मोहिमेलर्गत तालुक्यातील गावागाताल जनावराज्य लसीकरण

राष्ट्रप्रसामित पामपातांत नगावतांत सर्वाचरण करमण्यल नेपार साहे. अभी मा जन्मवारंगपता प्रसार जन्मवरानपुर वाजार अरंभव्यों एक जनवरानपुर दुराज्य ताजार प्रशास्त्री एक जनवरानपुर दुराज्य ताजारपात व्यक्ती सामग्र होते. या व्यक्तरीयांत्रकी जनवराज्या रारीराउट गती देता जन्मूर जनवराजे आरंभ्य वोजवात देवे करिव यारा बनी साने, दुवाक वानवरांनपते दुवाके प्रमान कनी होजे मा साराज्यी विभिन्न जन्मने दिशुन देन

चा पुढाकार

असाम्याने साध्या अनुसामयतीयती संगति अस्यार या चित्रेष्ठा विषय बन्दतिया आहे. त्यांसुही असामी प्रश्नावेशन्य सिरोधा बाग्र असामी

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प्रार्थकार निर्णात कारा अवानी प्रवर प्रमुख गांकनीय कार्या प्रवर प्रमुख गांकनीय कार्या राज्यनी गुणाव्यों ल्यां गुणाव्यों प्रार्थ्यात् गंदीय स्वति गेण्यात आर्थनी आर्थ गंदीय स्वति गेण्यात आर्थनी आर्थ गंदीयतर्था पाहिस्तरांत आर्वायां क गुलुस्वाति संपर्धात संपर्धा या गणाव्या एतूम्य २६६८ जनावाराना संगी या रोषायां प्रतीपत्र राष्ट्रपत संगणांत कार्य, य मंत्रीवियांत स्वत्यांत संगणांत कार्य, य मंत्रीवियांत स्वत्यांत संगणांत कार्य, य breisene auf mittelatende moscare २००० जनावरांना शाहिनेआंतर्भन जन्मवास ३००० जनावरांना लसीकरण करण्यात वेशार आहे, असे म्हफ केंद्रे

নাট, নাই ফেন্ড কন যা বহুবজিলাখনা ফ্রাডিফাইয়ার্চী প্রয়াজী অ্যাচাঁরলেট কার্যক্রম তালিকাই মিনিন কটে নাগজা নীযুম্মান অক্সমির্ণু হার্মজা নির্বাজনের নাগজা দ্রীন্দের্টা ক সীর্তিগাঁজন তাল্পুর্বা কার্যীক্রমণ স্কর্মার্চ্য দ্রীন্দের্টা ক সীর্তিগাঁজন তাল্পুর্বা কার্যীক্রমণ ware uniter.



िंगेका, ता. २८ : उनदानी व्यावेशन विभिन्न ज जिल्ला अभिवन वीरप्रन्था असीवे राष्ट्रविष्णाः अर्थरण्या विषयी साम्राज्य-अव्यती राज्य' या जयप्रमात कोचेजीवार पंथेल जिला परिषद क्रम प्राथतिक antich foregroups many section ramed-laws

ाजवीन्ता "अवस्थित साम्रेन स्वाप्तां साम्रेन ता प्राद्यम् प्रचन-२०वस्ती प्रवतिष्ठेतं प्राप्तान्त्र स्वीपन स्वित्रप्रस्ति प्राप्तान्त्र स्वीपन स्वित्रप्रस्ति प्राप्तान्त्र स्वीपन स्वित्रप्रस्ति प्रियम् स्वाप्तां साम्रेल विव्यप्रस्ती प्राप्तः राजेत्व्या अवस्थान्त्र विव्यप्रस्ती प्राप्तः स्वयन्त्र जिल्लास्ट्रापि राष्ट्री थेवल्य बाह्यार, आसीस्ट प्रथम जलीव NUMBER OF

igenerite mission withit त्रण अर्थे, परवानद ध्यांनद्रणो, पुषो १९ शोधरे, जिलोव ओंग्यांसे, जोदना



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tippen, first tyle, stilling finite, पासक, त्रांव पुर, सामगा सामगा, सोएक दर्शक, सामगा प्रातांकि सीएक दर्शक, सामगा प्रातांकि सामग्रे, सुनेश आसीक, प्रतेश सामग्रे, सन्ति प्रातांकि, प्रतेश सामग्रे, सन्ति प्रातां, एक्सी प्रातं, सामग्रे सन्ति प्रातां देखेला सामग्रे किया सन्दर्भ सामगा सिका eden, semutia ficite bioge, becm mineris, shaline eben, manil mabies, fisimi sinal, भारती नेपाल, पुत्रक (संगठाव), संस्था विशोध, राज्यपुरा, जास आवित्येन प्रायम् निर्मात कार्यक्रम पुत्रमार दिन्द्रम, सार्वकार वार्यक्रम पुत्रमार देवन्द्र सार्वकार प्रायम् केर्ने साठीकार जायावर्ग wifered meet area feiner abit, faren affren fran 1011100 अपानी अखीरणाणा जिलिन विकासक राज्या वीचना पानी अभिनंदन किले.

### 'Aadirakshi' bangles making women self-reliant

#### Adami Foundation Is providing training assistance NDIA, bdy 22

Intelligend programme for the vil-lage sources and have atranged training on key bengios for there. The training is impaired in sourcest from villages of Chroft, Kathobed, Child, Genede, Kathowani, Mungreatt, Gontadoola, Chilt, Kotheburn, Barmobia, Tharmattele and others. Itamotola, Tharmantole and others. The langles worked good supports in the northext. With Asiasi providing good quality means these biaghes around on a bib on "Auditabili bangles" or Anazon. Informang, more Shoukas with opeaking or the Historical and the biasing provide new mate-nal to the information and

GONDAL hay 22 ON INDEMS values barges are considered as step of good had, and happpings. for matried waters, Bargings also have be-mered importance in any low-more fibure transfered waters in more fibure transfered waters in more fibure to beyone and more fibure to beyone and water in the second step of more of that the beyone and more of that the second step with the second step of the second step of the second second of that the second step of the second step of the more transfered step of the second step of the second step of the second step in across the country and decad, the bision fiber bidgestate at 100 MeM. These ind Min String Stringthen, these of ideal for mathematical to second in the second state of ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second to the second ideal for mathematical second is second in the second ideal for mathematical second is second in the second ideal for mathematical second is second ideal for mathematical second is second ideal for mathematical second is second in the second is sec



Worrsen while making the Auditakahi bangles. (1) An image of Auditakahi bangles.

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Looking to the response rate Toological the response transport of loger variations shows those set in joining the trind. A wordshift Labla Shows the post of the transport of the set of the transport of the set of the transport of the set of the planet that the words of the planet that the words of the planet that the words of the rescaped in the set of the rescaped to the set of the set entry researce and new they a larger seals.



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### Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

F <b>ORM V</b> Environmental Audit Report for the financial Year ending the 31st March 2020									
Unique Application Number MPCB-ENVIRONMENT_STATEMENT-0000028780		Submitted Date 29-09-2020	omitted Date 09-2020						
Company Information									
<b>Company Name</b> ADANI POWER MAHARASHTRA LIMITED	Application UAN number 0000094229								
<b>Address</b> PLOT NO A1, TIRODA GROWTH CENTER, MIDC TIRODA, DIST. GONDIA									
<b>Plot no</b> PLOT NO A1	<b>Taluka</b> TIRODA	<b>Village</b> TIRODA							
<b>Capital Investment (In lakhs)</b> 18476.48	<b>Scale</b> LARGE	<b>City</b> TIRODA							
<b>Pincode</b> 441911	<b>Person Name</b> KANTI BISWAS	<b>Designation</b> STATION - HEAD							
<b>Telephone Number</b> 07198253961	<b>Fax Number</b> 07198253971	<b>Email</b> environment.tirod	a@adani.com						
<b>Region</b> SRO-Bhandara	<b>Industry Category</b> Red	<b>Industry Type</b> R48 Thermal Powe	er Plants						
Last Environmental statement submitted online	Consent Number	Consent Issue D	ate						
yes	FORMAT 1.0/CAC/UAN/0000094229/CR200900	0468 09/09/2020							
<b>Consent Valid Upto</b> 31/08/2021									
Product Information									
Product Name Electricity Generation	Consent Quantity Actual ( 3300 MW 2325430	<b>Quantity</b>	<b>UOM</b> Mwh						
	2020-111 2020-00	-							

Electricity Generation	3300 MW	23254390	Mwh		
FLY ASH BRICKS	10000 nos./day	336000	Nos./Y		
By-product Information					
By Product Name	Consent Quantity	Actual Quantity	UOM		
-	0	0			
1) Water Consumption in m3/day					
Water Consumption for	Consent Quantity in m3/day	Actual Quantity i	n m3/day		
Process	26592	1600			
Cooling	163728	140307			
Domestic	1440	1200			
All others	100	335			
Total	191860	143442			

1) Effluent Genera	ation in CMD / MLD				_	_	
Particulars			Consent Qua	ntity	Actual Quan	tity l	JOM
Trade Emilient			34205		24327	(	LMD
Domestic Effluent			192		163.1	(	CMD
2) Product Wise P	Process Water Consump	otion (cubic meter o	of				
process water per	r unit of product) (Production)		Durina tl	he Previous	Durina t	he current	иом
	(Production)		financial	Year	Financia	l year	0014
Power Generation			2.35 m3/n	nwh	2.26 m3/r	mwh	Mwh
3) Raw Material C material per unit	onsumption (Consump of product)	tion of raw					
Name of Raw Mat	erials		During the F	Previous	During the	current	иом
Coal			0.63	ar	0.63	ear	MT/MWH
4) Fuel Consumpt	ion						
Fuel Name		Consent quantity	,	Actual Qu	antity		UOM
Furnace Oil		90 KLD		1.4 KLD AV	/ERAGE		
LDO		95.52 KLD		1.3 KLD AV	/ERAGE		
Pollution discharg	jed to environment/uni	t of output (Parame	eter as specif	ïed in the cor	nsent issued)		
Pollutants Detail	Quantity of Pollutants discharged (kL/day) Quantity	Concentration of P discharged(Mg/Lit, PH,Temp,Colour Concentration	Pollutants ) Except	Percenta from pre standaro %variati	age of variatio escribed ds with reasor on	on 15 Standard	Reason
ZLD MAINTAINED	N.A.	N.A.		N.A.		N.A.	N.A.
ZLD MAINTAINED	N.A.	N.A.		N.A.		N.A.	N.A.
[B] Air (Stack)							
Pollutants Detail	Quantity of Pollutants discharged (kL/day	Concentration discharged(Mg )	of Pollutants //NM3)	Percer variati prescr with re	ntage of ion from ibed standard easons	ls	
	Quantity	Concentration		%varia	ation	Standard	Reason
PARTICULATE MATT	ER 2688	42.4		-		-	-
SO2	58627	925.48		-		-	
NOx	17575	277.4		-		-	-
HAZARDOUS WAS 1) From Process Hazardous Waste	TES Type		Te	otal During	Total	During Currer	nt UOM
			Pi	revious Finan ear	icial Finar	ncial year	
5.1 Used or spent of	II		32	2.838	31.06		KL/A
33.1 Empty barrels/ /wastes	containers/liners contami	nated with hazardous	chemicals 30	)1	300		Nos./Y
35.2 Spent ion exch	ange resin containing tox	ic metals	0.	5	0.64		KL/A
35.3 Chemical sludg	ge from waste water treat	ment	0.	47	0.14		MT/A

#### 2) From Pollution Control Facilities

Hazardous Waste Type		Total During Previous Fina year	ncial	al Total During Current Financial year	
35.3 Chemical sludge from wast	e water treatment	0.47		0.309	Ton/Y
SOLID WASTES 1) From Process Non Hazardous Waste Type	Total During Pre	vious Financial year	Total Du	ıring Current Financial year	UOM
Bottom Ash	872762		963038	2	MT/A
2) From Pollution Control Fa	cilities				
Non Hazardous Waste Type	Total Dur	ring Previous Financial year	' Tota	l During Current Financial year	UOM
FLY ASH	3491050		3852	155	MT/A
3) Quantity Recycled or Re-u	itilized within the				
Waste Type		Total During Previous Financial year		Total During Current Financial year	ИОМ
0		-		-	set/month

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 Hazardo Waste	us	UOM	Concentration of Hazardous Waste
5.1 Used or spent oil		40.80		KL/A	REPORT ATTACHED
33.1 Empty barrels/containers/liners contaminate chemicals /wastes	d with hazardous	300		Nos./Y	-
35.2 Spent ion exchange resin containing toxic m	etals	0.64		KL/A	-
35.3 Chemical sludge from waste water treatmen	t	0.309		MT/A	-
35.3 Chemical sludge from waste water treatmen	t	0.309		MT/A	-
2) Solid Waste					
<b>Type of Solid Waste Generated</b> ORGANIC WASTE	<b>Qty of Solid Waste</b> 98 ( AVERAGE )	<b>ИОМ</b> Kg/Day	Conce -	entrati	on of Solid Waste
IN ORGANIC WASTE	4398 ( AVERAGE )	Kg/Day	Plastic	c, Metal	,Rubber,Wood
Paper waste	10 ( AVERAGE )	Kg/Day	-		

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)
Green Belt development	-	-	-	-	303.82	-
Unit#2 CEP pump DE-staging to reduce throttling loss	-	-	-	1.29 Mus /Year	-	-
Unit#1 Vacuum pump suction line modification to improve condenser vacuum	-	-	6835 MT coal savings/year	-	-	-

Additional measures/investment proposal for environme	ntal protection abatement of pollution, p	revention of pollution
[A] Investment made during the period of Environmenta Statement	1	
Detail of measures for Environmental Protection	<b>Environmental Protection Measures</b>	Capital Investment (Lacks)
Pollution control equipment O &M	ESP, Bag Filters Etc.	2397.33
Pollution Monitoring ,Study and analysis	Pollution Monitoring, Study and Analysis	96.81
Green belt Development	Green Belt Development	303.82
Rural Development/CSR	Rural Development	406.09
Legal & consent fees	Legal & Consent Fee	381.89
Training & Awareness	Training & Awareness	1.77
Waste Management	Waste Management	3495.69

[B] Investment Proposed for next Year Detail of measures for Environmental Protection Environmental Protection Measures Capital Investment (Lacks) INSTALLATION OF FGD To achieve new emission norms of SO2 30000

Any other particulars in respect of environmental protection and abatement of pollution.

#### **Particulars**

? Environmental laboratory (NABL Accredited) has been established to monitor environmental parameters. ? Pollution monitoring and control equipment's established ? We are scientifically disposing domestic waste originated from canteen and guest houses from our plant through "Organic Waste Convertor" Machine which decomposes domestic waste into organic manure. ? Installed waste paper recycling machine inside the plant premises and waste papers are being recycled and used in house activates. ?

#### Name & Designation

Kanti Biswas - Station Head

## WORLD ENVIRONMENT DAY' 2020 (Celebration from 1<sup>st</sup> June to 5<sup>th</sup> June'2020

We at "Adani Power Maharashtra Limited" celebrated the World Environment week from 1<sup>st</sup> June to 5<sup>th</sup> June to create awareness amongst the employees and their family members by organizing the various competition seeking the pandemic Covid – 19 situation, with social distancing and without mass gathering. We have got the overwhelming response from our workers, employees and their family members for all the competition organized by Environment department. We have organize various competition by avoid mass gathering due to pandemic Covid Outbreak. The following competition were organized with plantation and antilittering pledge. The details of the programs are hereunder -

### Slogan & Poster Competition:

Slogan and Poster competitions on theme of "Biodiversity Conservation" were organized for Employees, Family Members, AVT Students, Contract manpower, Approx. 250 Participations received.



### **MODEL COMPETITION FOR APML FAMILY MEMBERS AND STUDENTS**

On the occasion of WED 2020, Model competition organized on Environment Protection for APML family members and AVT students. All the participants were very enthustic and very well explain about their model and keen to save our Environment.



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"Love Biodiversity- be the hero for a better world."

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### **Online Quiz Competition & Webinar on Biodiversity Conservation:**

To maintain social distancing of pandemic COVID – 19 situation. We have organized Online Quiz and Webinar on Biodiversity Conservation for APML employees and their family members respectively. We have received an overwhelming response from employees and their family members. The total participation presented in Chart as below



### WILD LIFE PHOTOGRAPHY COMPETITION

To increase awareness for conservation of Biodiversity, we have organized online photography for nature lovers, who always work for nature as their native responsibility. The photography is divide into 03 categories: Wildlife Portraits, Biodiversity Abstracts and Habitat and Landscapes. Each participant were submitted 03 photographs in each category. The feedback and participation of the photography contest was enthusiastic.

### 1. BIODIVERSITY ABSTRACT



"Love Biodiversity- be the hero for a better world."

### 2. LANDSCAPE & PORTRAIT

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### PLANTATION AT SHANTIGRAM TOWNSHIP BY NAVYA LADIES CLUB

A symbolic plantation was organized inside APML Residential Complex. Members of Navya Ladies Club was planted around 40 Nos. of saplings inside the premises.



"Love Biodiversity- be the hero for a better world."

### **PLANTATION INSIDE APML PREMISES**

A symbolic plantation program was also organized inside APML plant premises. During the plantation program 10 Nos. of saplings was planted by respected Station Head, O&M Head and Sr. officials.



PLANTATION BY STATION HEAD



PLANTATION BY HEAD O&M



PLANTATION BY SR. OFFICIALS OF APML TIRODA

Love Biodiversity- be the hero for a better world."



Annexure- IX

# **THANK YOU**

(STAY HOME.....STAY SAFE)





## National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

NABL / T-3287

06.08.2020

ARUN PRATAP SINGH ENVIRONMENTAL LABORATORY, ADANI POWER MAHARASHTRA LIMITED TIRODA Growth Centre, MIDC Area, Tiroda GONDIA,MAHARASHTRA-441911 Mobile: 9545554938 E-mail: arunpratap.singh@adani.com

#### Subject: Outcome of Desktop Surveillance Audit in accordance with ISO/IEC 17025:2017

Dear Sir,

We are in receipt of the documents submitted for the desktop surveillance audit. The same has been reviewed.

We would like to inform you the continuation of accreditation of your laboratory in accordance with ISO/IEC 17025:2017 for the discipline of Chemical testing as per the existing scope. However, the laboratory is required to address the following within 30 days time:

• Lab to submit the revised list of CRMs with valid traceability details.

Being an accredited laboratory of NABL, you must fulfill all the terms and conditions laid down in our document NABL-131 (Current Issue). You are required to follow NABL-133 (Current Issue) for issuing NABL symbol.

The accreditation is subject to continued compliance of NABL norms during the accreditation period. The laboratory is required to submit the renewal application at least 6 months before expiry to maintain the continuity of accreditation.

Yours Sincerely, Amit Kumar Sinha amits@nabl.qcin.org

> NABL House, Plot 45, Sector 44, Gurugram 122 003, Haryana, India Tel. No.: +91-124-4679700 (30 lines) \* Fax: +91-124-4679799 \* Website: www.nabl-india.org

ASDC Tiroda Training and Placement Details													
					Cano	didate	es Trai	ning				Tabal	Total
S. N.	FY Year	Trade	ST	SC	Minority	овс	Gen	Male	Female	Total	Candidates	Trained	Placement
1	2017-18	Welding Technician	125	0	0	0	0	125	0	125	2	123	117
2	2017-18	Assistant Electrician	116	0	0	0	0	116	0	116	5	111	95
3	2018-19	Welding Technician	30	18	2	0	0	50	0	50	5	45	45
4	2018-19	Assistant Electrician	11	14	5	0	0	30	0	30	2	28	26
5	2019-20	Welding Technician	45	25	0	59	4	133	0	133	11	122	112
6	2019-20	Assistant Electrician	30	28	0	65	9	132	0	132	10	122	114
7	2019-20	General Duty Assistant	36	27	0	27	15	0	105	105	2	103	88
8	2020-21	Welding Technician	2	0	0	8	0	10	0	10	0	10	3
9	2020-21	Assistant Electrician	3	7	0	36	2	48	0	48	0	48	26
		Total	398	119	7	195	30	644	105	749	37	712	626

### Digital Literacy Out-reach Training Program Total 256 Trained FY 2018-19

Digital Literacy Out-reach Training Program Total 1334 Trained FY 2019-20

Digital Literacy and other course Online Training Program Total 349 Trained FY 2020-21