## **GMR Warora Energy Limited**



Site Office:
Plot No. B1 & B7
Mohabala MiDC Growth Centre
Post and Tehsil Warora, Dist. Chandrapur
Maharashtra - 442 907
CIN U40100MH2005PLC155140
T+91 7176 267009 F+91 7176 267008
W www.gmrgroup.in

Ref: GMR/GWEL/EC/COM/21-22/01 30<sup>th</sup> Oct. 2021

The APCC F (C.)

Ministry of Environment and Forest & Climate Change, RO (WCZ) Ground Floor East Wing, New Secretariat Building Civil Line, Nagpur – 440001 Maharashtra

Subject: EC Compliance Report of GMR Warora Energy Limited 2 x 300 MW (Phase -I & II)

Ref .:

- 1. MoEF, Environment Clearance Letter J-13011/2/2008-IA.II (T) DATED 19th MAY, 2008
- 2. MoEF, Environment Clearance Letter J-13011/2/2008-IA.II (T) DATED 4th JUNE, 2009
- 3. MoEF, Environment Clearance Letter J-13012/75/2008-IA.II (T) DATED 25th MAY, 2010

#### Respected Sir,

With reference to the above, we are pleased to submit our half yearly Environment Clearance compliance report for Phase I & II of our unit GMR Warora Energy Limited situated at MIDC, Warora, Chandrapur for the period of April to September 2021.

Kindly acknowledge the receipt of the same.

Thanking you.

Yours Faithfully,

For GMR Warora Energy Ltd

Dhananjay V. Deshpande

COO

Encl.: As Above

CC:

1. The RO, MPCB, Chandrapur, Maharashtra

2. The SRO, MPCB, Chandrapur, Maharashtra

Registered Office: Plot No. 301, G Block, 7th floor, Naman Centre Bandra Kurla Complex (Opp. Dena Bank)

Bandra Kurla Complex (Opp. Dena Bank) Bandra (East), Mumbai - 400 051

Corporate Office: Building No. 302, New Shakti Bhawan New Udaan Bhawan Complex Opp. Terminal-3, IGI Airport, New Delhi - 110 037

# COMPLIANCE REPORT



As per conditions stipulated in

# **ENVIRONMENT CLEARANCE**

Phase—I: ISSUED BY MOEF VIDE LETTER No J-13011/2/2008-IA.II (T) DATED 19th MAY, 2008

And LETTER No J-13011/2/2008-IA.II (T) DATED 4th JUNE, 2009

Phase—II: ISSUED BY MOEF VIDE LETTER No J-13012/75/2008-IA.II (T) DATED 25th MAY, 2010

Of

# MINISTRY OF ENVIRONMENT & FOREST & CLIMATE CHANGE, NEW DELHI

Compliance Period: APRIL TO SEPTEMBER 2021

For

2 x 300 MW COAL BASED THERMAL POWER PLANT

Of

# **GMR Warora Energy Limited,**

Plot No B-1 | MIDC Growth Centre | PO – Warora |

Dist – Chandrapur | Maharashtra-442 907

# SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE CONDITIONS FOR UNIT-I: ISSUED BY MOEF VIDE LETTER NO J-13011/2/2008-IA.II (T) DATED 19TH MAY, 2008

SI. No	Terms and Conditions	Compliance Status	
1	The total land requirement for the project shall be restricted to 114 ha	Total land requirement is restricted to 114 ha only.	
2	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 44% respectively	Sulphur content in coal is 0.35% and ash content is 34% which are well under the prescribed standard.	
3	A bi-flue stack of 220 m height with continuous online monitoring Equipment's for SOx, NOx and Particulate matter shall be provided. Exit velocity of flue gases shall not be less than 25 m/sec	A bi-flue stack of 275 m height with continuous online monitoring system for $SO_x$ , $NO_x$ and Particulate matter is duly provided. Exit velocity of flue gases is being maintained above 25 m/sec.	
4	High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 100 mg/Nm <sup>3</sup>	ESPs has been installed with 99.98% efficiency to maintain the emission of particulate matter well below 50 mg/Nm3. (Annexure-I)	
5	Fly ash shall be collected in dry form and its 100% utilization shall be ensured from day one. Bottom ash shall be disposed in conventional slurry mode in the ash pond	We have constructed 3 Nos. Fly ash silo with capacity of 1500 MT each for collection of Fly ash in dry form which are then sent to cement industries for utilization. Bottom ash is disposed in ash pond in slurry form.  (Annexure-II)	
6	Ash pond shall be lined with suitable impervious lining. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached		
7	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 dust extraction system like bag filters and water spray system is duly provided in dusty areas such as coal handling and ash handling points, transfer areas and other vulnerable dusty areas which are continuously operated to take care of fugitive emission.	
8	Water requirement shall not exceed 830 m3/hr	Water requirement is well within prescribed limit of 830 m3/hr.	
9	Closed cycle cooling system with cooling towers shall be provided. The effluent shall be treated to conform to the prescribed norms	Induced draft cooling tower (IDCT) is being constructed. Amendment to shift from Natural draft cooling tower (NDCT) to IDCT, MOEF (Gol). Vide letter no. J-13012/75/2008-1A.II (T), dated 30th November, 2010.  State of art ETP is in operation in which Effluent are treated to meet the prescribed norms.  (Annexure-III)	

10	The treated effluents conforming 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 so that effluents and storm water do not get mixed	The treated effluents conforming to the prescribed standards are completely recirculated and reused within the plant. Arrangement are made to ensure that no discharge will take place outside the plant boundary except during monsoon season. Storm water and effluent drains are kept separate to arrest any mixing of the both.
11	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation	Sewage Treatment Plant with the capacity of 25 KLD has been installed and is in operation. Treated water from STP is used in green Belt development activities/ plantation. (Annexure-IV)
12	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry	Regular Monitoring of ground water in and around the ash pond area is being monitored and analysis results of the same are also submitted to MPCB on quarterly basis.
13	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	Rain Water harvesting system is in place as per the recommendation by ground water board for ground water recharge. Regular monitoring of ground water level is done through piezometers.  (Annexure-V)
14	A green belt of adequate width and density shall be developed around the plant periphery covering about 42 ha of project area preferably with local species	More than 40% of plant area is under green belt plantation with more than 95% survival rate in and around the periphery and open land of the plant premises. Additionally organic farming is also carried out. (Annexure-VI)
15	LeQ of Noise levels emanating from turbines shall be limited to 75 dB. 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, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas	Being complied. Noise levels generating from turbines are well within the prescribed limits. Personal protective Equipment's like earplugs/ear muffs etc. are provided to people working in the high noise area. Periodic medical checkup conducted for workers engaged in noisy areas such as turbine area, air compressors etc. and their audiometric records are also maintained.

16	A plan for conservation of fauna reported in the study area shall be prepared in consultation with state forests and wildlife depart within 3 months and shall be implemented immediately	GIB and other Schedule-1 wildlife conservation plan for EMCO Energy Ltd for Rs. 24.91 Lakhs has been prepared by Divisional Forest officer, Chandrapur vie letter No:Desk-5/survey/Land/2128/ 2013-14, dated 19.03.2014 as per guidelines of Ministry of Environment and forest, New Delhi on the basis of plan sanctioned by P.C.C.F.(Wildlife), M.S, Nagpur. Ref No:-Desk-WL/22(6)/CR69/5370/ 13-14, Nagpur Dated 07.03.2014. As per demand letter No: Desk-5/Survey/Land/2268 dated 26/03/2014 received from Divisional Forest officer-Chandrapur, EMCO Energy Ltd. deposited the amount of Rs. 24.91 in Ad-hoc Compensatory Afforestation Fund Management & Planning Agency (CAMPA)Savings Bank A/c No: SB 01025218 Corporation bank, Lodhi Road, New Delhi IFSC Code- CORP0000371 through RTGS on date 08/07/2014. The UTR no. for the payment done is "BRN-RTGS-UTIBH14189021366-AD HOC COMPENS". Lakhs in CAMPA.
17	Regular monitoring of ground level concentration of SO2, NOx, Hg, 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 monitoring shall be decided in consultation with SPCB. Six monthly reports shall be submitted to the Regional Office of this Ministry at Bhopal.	Regular Monitoring of ground level concentration of SPM, SO2, NOx, PM 2.5 & PM10 and Hg is being carried out continuously by the third party in the impact zone and records maintained. Results of the same are well within the standards.  Monitoring reports are also submitted to the board & regulatory bodies on regular basis.
18	Appropriate safeguard measures shall be taken to guard against fire hazards in coal storage area. DMP shall be prepared to handle such situation.	Fire Hydrant system and water monitors installed around coal stack yard to guard against fire incident. The system is always in pressurized condition through Fire water pump house for ready use. DMP is in place.
19	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 the clearance letter, informing that the project has been accorded EC and copies of clearance letter are available with the state pollution control board/committee and may be also be seen at website of the MoEF at http://envfor.nic.in	Complied
20	A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards	Environment Management Cell has been set up with qualified and competent staff for proper implementation of environment control measures and satisfactory compliance to condition of EC/CTE and CTO.
21	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/ Regional Office/CPCB/SPCB	We are regularly submitting six monthly compliance reports to the Board and ministry as per the guidelines. Last report submitted on 29 <sup>th</sup> Apr. 2021.

22	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring	Noted
23	Separate funds shall be allocated for implementation of environmental protection measures along with itemwise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry	We have allocated separate budget for Environment Management for implementation of environmental protection measures from which various environmental works is being carried out.  The budget is solely dedicated for the purpose of Environment Management only.

Sr. No	Terms and Conditions	Action to be Taken
1	An amount of Rs.1.6 Crores as capital and Rs.30 Lakhs as recurring expenditure per annum should be earmarked for taking up activities under CSR.	Being Complied
2	Copy of conservation plan of fauna in the study area, reported to be prepared, should be submitted to the Ministry within 15 days of the issue of this letter.	GIB and other Schedule-1 wildlife conservation plated for EMCO Energy Ltd for Rs. 24.91 Lakhs has been prepared by Divisional Forest officer, Chandrapur villetter No:Desk-5/survey/Land/2128/ 2013-14, date 19.03.2014 as per guidelines of Ministry of Environment and forest, New Delhi on the basis of plan sanctioned by P.C.C.F. (Wildlife), M.S., Nagpur Ref No:-Desk-WL/22(6)/CR69/5370/ 13-14, Nagpur Dated 07.03.2014. As per demand letter No: Desk 5/Survey/Land/2268 dated 26/03/2014 received from Divisional Forest officer- Chandrapur, EMCO Energ Ltd. deposited the amount of Rs. 24.91 in Ad-ho Compensatory Afforestation Fund Management Planning Agency (CAMPA)Savings Bank A/c No: S01025218 Corporation bank, Lodhi Road, New Dell IFSC Code- CORPO000371 through RTGS on dat 08/07/2014. The UTR no. for the payment done "BRN-RTGS-UTIBH14189021366-ADHOC COMPENS" Lakhs in CAMPA.
3	First aid and sanitation arrangements shall be made for the drivers and the contract workers during construction phase.	Full-fledged Occupational Health Centre wit experienced MBBS Doctor and Paramedic Staff ha been deputed in the plant for first aid arrangement and well devised schedule is developed for carrying out the sanitization.
4	Regular monitoring of ground level concentration of SOx, NOx, Hg, 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 monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	Regular Monitoring of ground level concentration of SOx, NOx, Hg, SPM, PM2.5 & PM10 is being carried out in the impact zone and records are maintained Results of the same are well within the prescribe limits.  Monitoring reports of the same are also submitted the board on monthly basis.
5	Provision shall be made for the housing of construction labor 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.	Complied

6	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall be sent to the Regional office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels, namely SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) or critical sectorial parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	EC compliance report are sent to MoEF & CC regional office as well as to regional offices of MPCB & CPCB every six monthly.  The pollutant levels, namely SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) are being monitored and displayed at the main gate of the company in the public domain.
7	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by email) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.	Six monthly EC Compliance report including results of monitoring data are being submitted to the respective regional office of MoEF, the respective Zonal office of CPCB, SPCB.  Last compliance report was submitted on 29th Apr. 2021.
8	Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis. Criteria pollutants levels (stack and ambient levels of NOx) will be displayed at the main gate of the power plant.	The criteria pollutant levels, namely SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) are being monitored and displayed at the main gate of the company continuously.

COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE CONDITIONS FOR UNIT-II:
ISSUED BY MOEF VIDE LETTER No J-13012/75/2008-IA.II (T) DATED 25th MAY, 2010

	ISSUED BY MOEF VIDE LETTER No J-13012/75/2008-IA.II (T) DATED 25th MAY, 2010			
Sr. No	Terms and Conditions		Compliance Status	
A. Spec	ific Conditions.			
1	Environmental clearance is subjected to submission of a time bound implementation of a wildlife conservation plan particularly with respect to protection of great Indian Bustard and other Schedule-1 species, to be prepared in consultation with the office of the Chief Wildlife Warden concerned and the Wildlife Institute of India.  The plan shall have an in-built monitoring mechanism and annual audit, report of which shall be submitted to the Regional Office of the Ministry and concerned department in the state government.	for GM been Chand 2013-1 Minist the ba M.S, I 13-14, letter 26/03 Chand amour Affore (CAMP Corpor CORPO The U	/2014 received from Divisional Forest officer- rapur, EMCO Energy Ltd. deposited the at of Rs. 24.91 in Ad-hoc Compensatory station Fund Management & Planning Agency A) Savings Bank A/c No: SB 01025218 ration bank, Lodhi Road, New Delhi IFSC Code- 10000371 through RTGS on date 08/07/2014. TR no. for the payment done is "BRN-RTGS- 14189021366-AD HOC COMPENS". Lakhs in	
2	It shall be ensured that the natural drainage in the region is not disturbed due to activities associated with operation of the plant.	natura	r care has been taken to ensure that the al drainage in the region is not disturbed due ivities with operation of the plant.	
3	Provision for installation of FGD shall be provided. High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm3. 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.	provid State 99% partic Adequ bunke provid	of art ESPs has been installed with more than efficiency to maintain the emission of ulate matter well below 50 mg/Nm3.  ate dust extraction system installed in coal r and dry fog type dust suppression system ed at wagon tipplers, coal stock piles, crusher, and transfer houses to take care of fugitive	
4	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM2.5 & PM10), S02, NOX (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	param display Six mo the st monitor	oring of the ambient as well as for stack eters are regularly carried out and data is yed at main gate of the plant digitally. Onthly reports on the status of compliance of cipulated EC conditions including results of pring data are submitted to the respective al office of MoEF, CPCB & MPCB.	

5	No irrigation and drinking water requirements out of the Barrage / reservoir shall be diverted for the power plant.	Being Complied.
6	No ground water shall be extracted for use in operation of the power plant even in lean season.	Being Complied. Plant is getting water from MIDC, warora for requirements.
7	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 quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.	Hydrogeological study of the area is being carried out in annual basis and report submitted to Ministry and state board. No adverse impact is observed is ground water quantity and quality. Hydrogeological study report submitted on 25 <sup>th</sup> Feb. 2021.
8	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers even in lean season.	Plant is getting water from MIDC, Warora. Minimum required environmental flow suggested by the irrigation department is being well maintained in the channel rivers even in lean season.
9	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.	Rain Water harvesting system is in place for ground water recharge as per the guidelines of the CGWB.
10	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	Soil for leveling of the site is generated within the site in order to well protect the natural drainage system of the area.
11	Utilization of 100% Fly Ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Effective Utilization of Fly ash is in place and same is being sent to the nearby cement plants for cement manufacturing also to brick manufacturers. Ash utilization status is convened to the ministry and state board regularly.
12	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed of in the ash pond in the form of slurry form. 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 of in low lying area.	We have constructed 3 Nos. of Fly ash silo with the capacity of 1500 MT each for storage of fly ash in dry form which are then sent to cement industries for complete utilization. Unutilized ash is sent to captive ash pond in slurry form.  Regular monitoring of heavy metals in ash pond water is carried out and reports are also submitted to board on monthly basis.
13	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.	Bottom of the ash pond compacted at high dry density soil and provided with 600mm impervious clay lining. Sides of the ash pond lined with HDPE lining and tiles. Ash pond provided with garland drains to collect run-off water and seepages if any from the pond. Ash water recovery system i.e. the supernatant is collected and treated in settling tank and routed to ash handling system is in place.

14	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 areas 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
15	Closed cycle cooling system with natural draft cooling towers shall be provided. The effluents shall be treated as per the prescribed norms.	Induced draft cooling tower (IDCT) is being constructed. Amendment to shift from Natural draft cooling tower (NDCT) to IDCT, MOEF (Gol). Vide letter no. J-13012/75/ 2008-1A.II (T), dated 30th November, 2010.  State of art ETP is in operation in which Effluent are treated to meet the prescribed norms.
16	Shelter Belt consisting of 3 tiers of 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 less than 2500 per ha with survival rate not less than 70 %. To meet the expenditure of development of this, Shelter Belt, a Green Endowment Fund shall be created out of EMP budget and status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	Complied
17	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 form the date of issue of this letter.	Project is in industrial area of MIDC, Warora. Hence not applicable.
18	An amount of Rs 12.0 Crores shall be earmarked as one time capital cost for CSR program. Subsequently a recurring expenditure of Rs 2.5 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.	Being Complied. CSR works accrued out by the plant is attached as <b>Annexure</b> - VII.

As part of CSR program the company shall conduct need based assessment for the nearby villages to study economic measures with action plan of the society. 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, fruit bearing orchards, vocational training etc. can form a part of such program. Company shall provide separate budget for (Annexure-VII) community development activities and income generating program. This will be in addition to vocational training for individuals Imparted to take up self-employment and jobs. In addition to above a special scheme for upliftment of SC/ST's and marginalized farmers population in the study area out of CSR program shall be formulated and submitted to the Ministry within six months along with firm commitment of implementation. The scheme shall have an in-built monitoring mechanism. B. General Conditions: The treated effluents conforming 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 effluents and storm water do not do not get mixed.

Activities being taken up for the upliftment of SC/ST's and marginalized farmers and poor section of the society.

CSR activities is vigorously carried out by the project proponent through its wing Var Laxmi Foundation. Details of the CSR activities being carried out in last year is attached for reference.

(Appendix Province VIII)

The treated effluents conforming to the prescribed standards are recirculated and reused within the plant. Arrangement has been made to ensure zero discharge outside the plant boundary except during monsoon. Storm water and effluent drains are not allowed to mix. Treated Effluent Analysis Reports of last six months (Annexure-VIII)

A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation. Sewage Treatment Plant with the capacity of 25 KLD has been installed.

Treated water from STP is being use in green Belt development/ plantation. Treated Effluent Analysis Reports of last six months. (Annexure-VIII)

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 the Ministry as well as to the Regional Office. Adequate Fire Hydrant system and water monitors are installed around coal stack yard to check/minimize spontaneous fires in coal yard. The system is always in pressurized condition through Fire water pump house to deal with any situation.

Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, 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.

Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS are made in the plant area in consultation with Department of Explosives, Nagpur. Storage license obtained. Sulphur content in the liquid fuel is not exceeding 0.5%. Disaster Management Plan is prepared to meet any eventuality in case of an accident taking place due to storage of oil.

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

Regular Monitoring of ground water in and around the ash pond area is being done and analysis report of the same are also submitted to MPCB on regular hasis

Heavy metals are being analyzed in the ash pond water and report shared with concerned authorities.

6	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.  First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase	Full-fledged medical Centre with experienced MBBS Doctor and Paramedic Staff are deputed in the plant for efficient First Aid.
7	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 db. 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 compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas	Noise levels emanating from turbines are controlled and are well within the limits. Personal protective Equipment's like earplugs/ear muffs etc. are provided for people working in the high noise area. Periodic medical checkup conducted for workers engaged in noisy areas such as turbine area, air compressors etc. Audiometric record maintained. Ambient and Work Zone Monitoring reports. (Annexure-IX)
8	Regular monitoring of ground level concentration of SOx. NOx, PM 2.5 & PM10 and Hg 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 monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	Regular Monitoring of ground level concentration of SOx, NOx, Hg, SPM, PM2.5 & PM10 is being carried out in the impact zone and records are maintained. Results of the same are well within the prescribed limits.  Monitoring reports of the same are also submitted to the board on monthly basis.  (Annexure-X)
9	Provision shall be made for the housing of construction labor 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.	Complied
10	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	Complied. Published in Local Newspaper- Hidwada and Lokmat on 30th May, 2010. Copy of the same is already submitted with first half yearly report vide letter no. EMCO/SITE/MoEF/001, 28th August, 2010
11	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad, Municipal Corporation, Urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put	Plant is located in notified industrial area (MIDC), Clearance letter is uploaded on the website of the company.

	on the website of the Company by the project proponent	
12	A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environmental Management cell with competent 8 qualified persons, has been established since January, 2010 for implementation of the stipulated environmental measures & subsequent Environmental management in the plant.
13	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC 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.	Being complied. Six monthly reports on the status o compliance of the stipulated EC conditions including results of monitoring data are being submitted to the respective regional office of MoEF & CC & the state board.
14	The environment statement for each financial year ending 31st March in Form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e mail.	Being complied. The environment statement for each financial year is submitted regularly. Last Environment statement submitted on 30 <sup>th</sup> Sep 2021.  Six monthly reports on the status of compliance of the stipulated EC conditions including results of monitoring data are being submitted to the respective regional office of MoEF & CC & the state board.
15	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.	Being complied. Six monthly reports on the status of compliance of the stipulated EC conditions including results of monitoring data are being submitted to the respective regional office of MoEF & CC & the state board. Last Six monthly compliance report was submitted on 29 <sup>th</sup> Apr. 2021.
16	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	Noted.
17	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	We have allocated separate budget for Environment Control Measures for implementation of environment control measures.  The above budget is dedicated to Environment Management only.

18	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	Date of Financial closure of the project: October 2009. Final approval by the Concerned authorities: 1) Letter of support from Govt. of Maharashtra dated 1st May 2007 is already submitted with First Compliance report. 2) Environment clearance letter MoEF submitted. 3) Date of start of land development work: June 2010. 4) Unit-I COD- March 2013. 5) Unit-II COD- September 2013.
19	Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bangalore I CPCB/ SPCB who would be monitoring the compliance of environmental status.	Noted.
5	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	Noted.
6	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	Noted.
7	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986	Noted.
8	In case of any deviation or alteration in the project proposed, including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	Noted.
9	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Noted.
10	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	Noted.

#### ELECTROSTATIC PRECIPITATOR





#### FLY ASH AND BOTTOM ASH SILOS





#### ANNEXURE-III

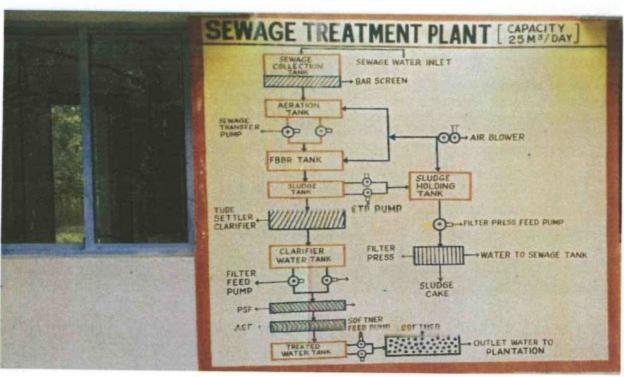
#### EFFLUENT TREATMENT PLANT





#### SEWAGE TREATMENT PLANT

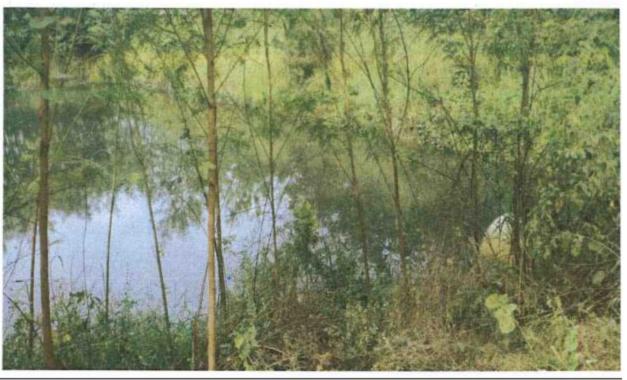




#### ANNEXURE-V

#### RAIN WATER HARVESTING





#### ANNEXURE-VI

#### **GREEN BELT**





## ANNEXURE-VI





#### ANNEXURE-VI





# CORPORATE SOCIAL RESPONSIBILITY REPORT

#### A. EDUCATION

#### A.1 Support to different educational activities:

As part of taking precautionary measures to combat COVID-19 and due to pandemic situation, all offline educational activities were kept suspended in all villages this month.

- After School Learning Centers (ASLCs).
- E- Education Centers.
- Kid Smart Centers (KSC).
- Community library.
- Navodaya Coaching.
- Anganwadi canters and other educational activities remain suspended.



#### A.2 Direct support to the children:

A.2.a. Online Crash Course at ASLC and E-Center Activities: The education volunteers including ASLC and E-center are continuing educational activities in 7 villages. Offline classes were kept suspended due to pandemic and resurge of COVID cases in villages since 10 April 21.

GMRVF has started After School Learning Center (ASLC) and E-Learning Center in year 2013-14 and since then it is trying every year to improve education quality in the village. During this pandemic, GMRVF conducted online and offline classes throughout the pandemic and also organized summer classes with an objective to boost learning level of each student. After successful implementation of summer classes GMRVF initiated re-admission process in all centers in all villages for 2021-22 academic session. Total 504 students enrolled in ASLC in 6 villages and 515 students enrolled in E-Learning Center in 6 villages. The first step followed in all center was to find out the learning level of each students so as to set the baseline data. The first test conducted to find out the baseline of students and it shows:

ASLC	Grade A	Grade B	Grade C	Grade D
Baseline	68	75	175	186
Aug Result	69	103	155	177

E-Center	Grade A	Grade B	Grade C	Grade D
Baseline	35	96	126	258
Aug Result	65	86	116	248

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All centers are conducting fortnightly test and gaging the progress of students. The August month's results depicted in above table indicating slight improvement.

Volunteer meetings have been conducted and detail plan for organizing classes were discussed. The course content was decided and shared with all volunteers to take it forward. Classes continued during the month and average 383/504 and 473/515 students attended the classes using online and offline mode this month. Three Parents Teacher Meeting (PTM) conducted in all villages to brief the performance of their children and motivate them to keep tracking of their wards. Total 258 parents attended the meeting and learned the progress of their wards.

A.2.b. Online Navodaya Classes: GMRVF is organizing Navodaya coaching at Charur Khati, Majra Rai and Chinora villages. Total 35 students are enrolled in these coaching in academic session 2021-22. The online classes are continuing in these centers where volunteers are preparing video lessons and sharing the same with students on parents WhatsApp groups. Volunteers are also collecting feedback on learning from the students by one to one interaction. 21/35 students from current batch attended the online classes and cleared their doubt and prepared for Navodaya Entrance test.

Apart from this virtual classes were conducted for last year's 28 students so as to prepare them thoroughly for upcoming Navodaya Test. This year 28 students appeared in Navodaya Entrance Test which was organized on 11 Aug at Warora center.

A.2.c. 'Learning Navigator' Tool Gooru App: Two rounds of refresher training conducted with GMRVF staff and volunteers on how to use Gooru App. All volunteers have started taking classes using offline mode and started collecting all basic information for rostering / re-enrolling students in Learning navigator application. The Gooru App have implemented on pilot basis in Chinora, Dongargaon, Dahegaon, Nimsada, Majra Rai, and Charur Khati villages last year with 131 students. This year again, same number of students from After School Learning Center (ASLC) will be targeting.

A.2.d. PRATIBHA Library: Total 470 aspirants are registered in the library. Special online classes organized during the month and more than 90 aspirants attended classes on Reasoning, Current affair and English Grammar. 3 mock tests and 4 group discussion organized in the Library that was attended by 90 students. Total 37 students registered for online courses under various online platforms. Out of 37 students, total 17 students enrolled in Accounts & Finance and Tally with GST from Udemy, 7 students enrolled in Business management course; 9 students enrolled in Digital Marketing and 4 students enrolled in Customer Services from Oxford Home Study. As of now 5 out of 37 students have completed their courses and received certificate at Pratibha Center.

Apart from this, information of various jobs provided during this month and motivated students to apply for jobs. Off-line activity of center started from 9 Aug with 50% capacity after seeking due approval from District Collector.

#### B. HEALTH HYGIENE AND SANITATION

Following are some of the major and important activities conducted during this month. As part of precautionary measures to combat COVID-19 and due to lockdown. However, all other activities under this head were kept suspended in all villages this month.

**B.1 Primary Health Clinics:** GMRVF is running eight Primary Health Clinics in 10 villages. The clinics were opened to provide basic health services to the people of all project affected villages. All necessary precautions of hygiene and cleanliness were followed strictly at the clinics to combat COVID-2019. Hand wash, Hand sanitizer, face masks and social distancing were strictly followed during conduct of the clinics. Doctors visited the clinics twice in a week and provided free check-up and medicine to each patient. More than 2118 regular and seasonal patients benefitted from the clinics during the month.

B.2 Mobile Medicare Unit: GMRVF recognize that health is integral part to quality of life, GMRVF focus on improving quality of and access to healthcare, and sanitation in its communities. Considering this GMRVF has started MMU services in about 22 project affected villages started from Madheli village to Nanduri (close to power station). The MMU is treating and providing free medicines to all old aged patients suffering from general ailments and visiting each village once in a week. The MMU is also referring patients for critical problems such as BP; Critical Arthritis etc. including counselling of old age people and conducting special awareness sessions on general / specific health related problems. The MMU has also created awareness to villagers on taking precautionary measures to combat COVID-2019 through distribution of pamphlets and displaying of posters. During this month MMU has served and benefitted 1649 old aged patients aged 50 and above.

B.3 Nutrition Center: Nutrition Center re-started providing its services from 1st week of July 2021. The awareness program and nutrition distribution started in 5 villages. The door to door services initiated in order to avoid crowed and maintain social distancing. Total 66 Pregnant and Lactating Mothers (PLM) registered in Nutrition center and out of this 56 PLM Women received supplementary nutrition at their door steps. During the month six institutional delivery taken place at Nimsada, Naidev Marda and Dahegaon. All six deliveries recorded "normal delivery". The two baby girls and four baby boys both are healthy and recorded birth weight more than 2.5kg.

**B.4 Fogging Operation:** Fogging operation is continued and covered 8 villages. This month fogging operation was performed at Fogging operation performed at Nimsada, Dongargaon, Charur Khati, Chinora, Dahegaon, Majra Rai, Majra Khurd, and Naidev. More than 10000 people from 8 villages benefitted. Dengue is outburst in Dongargaon (6 patients detected) and therefore special fogging conducted during the 14th and 22nd week of the month in day hours at Majra Khurd (Monday).

B.5 Water ATMs: GMRVF and GWEL installed 17 Water ATM in 17 villages in Warora Tehsil. These villages are Dongargaon, Dahegaon, Chikini, Charur Khati, Chinora, Majra Rai, Majra Khurd, Yensa, Mohbala, Marda, Nimsada, Naidev, Wanoja, Bawane Layout, Ekona, Wandhali and Kondala. These Water ATM installed in past 4 years and providing clean and fluoride free water to more than 18,000

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people (more than 4500 households). All households are receiving benefit uninterruptedly from the day of installation of Water ATM, and improving their health status as well as saving a sizable amount of money from medication. During this pandemic, GMRVF has provided and kept hand wash soap bottles in each Water ATM to maintain cleanliness and avoid spread of virus. GMRVF has also provided sodium hypo in each ATM and conducting regular spraying so as to maintain hygiene in the machines.

B.6 Post Lockdown Awareness: 24 Post Lockdown awareness program conducted at Marda, Dongargaon, Majra Rai, Dahegaon, and Chinora villages to aware community on COVID safety. This benefitted 499 villagers. 3 Health awareness program conducted at Nutrition Center on Dengue during pregnancy that benefitted 18 women.

**B7 Vaccination and Vaccination Awareness:** COVID Vaccination taken place at Marda village on 2 Aug (200 people vaccinated); at Chinora on 6 Aug (149 people vaccinated); at Charur Khati 16 Aug (111 people vaccinated); at Majra Rai 16 Aug(150 people vaccinated); at Majra Khurd 23 Aug (109 people vaccinated); at Nimsada 30 Aug (205 people vaccinated) and at Charur Khati 30 Aug (250 people vaccinated). Thus total 1174 people vaccinated during the month (first and second dose both).

ARI Vaccination Awareness Program: Vaccination awareness drive organized at 14 MMU villages in Warora with the support of AER RIANTA INTERNATIONAL (ARI). MMU doctor and program officer provided information on "why vaccination is important, how many doses to be taken, how to get ready for vaccination and after vaccination how to take care of yourself and how to safeguard ourselves from covid-19". Total 274 old aged attended the program and benefitted.

GMRVF and Help Age India under the support of ARI has provided transportation facility to old aged that helped in vaccination of 42 old aged people during this month.

#### C. EMPOWERMENT AND LIVELIHOODS

C.1 GMRVF Center for Empowerment and Livelihoods – Warora activities: GMRVF CEL is running two self-employment courses at Warora. These are Smartphone Hardware Repairing Technician (SPHRT) and Assistant Beauty Therapist (ABT). The center is affiliated with PMKVY Scheme of Govt. of India. The center's functioning reopened with 50% capacity after seeking permission from District Collector from 9 August 2021. Total 41 & 55 students of 4th & 5th batches of SPHRT & 7th & 8th Batch of ABT courses respectively attended online classes during the period. Topic such as "Hair Style, Make up, assembling and dissembling, diagnosing problem in mobile, fixing software problem in mobile were covered. The practical classes are also continuing this week in the center with maintaining social distancing and small group of 5 students of ABT and SPHRT each attended practical classes. At present there are total 96 students are under training in two courses in four batches. 78 out of 96 students have gone for first dose of COVID vaccination in the center. VTC team guided more than 40 students for Self-employment. Total 26 students placed this month. 12 students from SPHRT and 14 students from ABT settled in Self-employment and or joined the jobs in local shops. The certificate and kits were distributed to 18 students of 4th & batch of ABT and 10 students of online batch of SPHRT. No

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formal program was organized due to pandemic guideline but the certificate and kits were distributed to individual students at VTC. The kits of ABT containing Manicure, Pedicure set, Wax Heater, Scissor and Thread which can be used by students to take off their business.

Virtual motivation session conducted for VTC students on Self employment on 27 August 2021 at VTC Warora. Mr. Sanjay Peche, Chairman-Astha Bahuuddeshiya Charitable Trust delivered the lecture and motivated 37 students who attended the session in virtual mode.

C.2 Tailoring work: To promote skills in women, GMRVF has provided basic tailoring skills to more than 600 women in Warora in past 7 years. To engage these skilled women GMRVF has initiated tailoring hub in two villages. Due to pandemic, 55 women took it as an opportunity and started cotton mask stitching using tailoring hub facility. They have stitched nearly 14,000 masks till the end of this month from April 2021 and earned Rs. 70,000 from this work.

#### C.3 Agriculture activities:

C.3.a Floriculture: This year to promote floriculture with large number of farmers, GMRVF has initiated discussion with farmers and suggested to establish nursery in villages. Two farmers get ready to start growing nursery of flower plants but failed to do the same due to unavailability of seeds.

During the Kharif season 8 farmers from 4 villages planted Galadia and Kudi flowers during this month targeting upcoming Festival season. These farmers have covered 4.5 acres of land altogether this year under floriculture activity.

C.3.b. Grain Cash Seed Bank (GCS Bank): GCS bank of Dongargaon, Dahegaon, and Charur Khati has conducted meetings to plan seed distribution for coming Kharif crop. They have collected Rs 10.65 Lakhs for the purchase of seeds for upcoming Kharif Cropping and planned to distribute Cotton and Soybean seeds. All GCS banks have planned to purchase 1050 bags of cotton seeds and nearly 130 bags of soybean seeds. This year GCS bank could reach up to 329 farmers (Dongargaon – 49 farmers, Dahegaon – 200 farmers and Charur Khati – 80 farmers) and distributed 1180 bags of cotton and soybean seeds. Farmers will adopt improve agriculture practices and cover nearly 1180 acres land in 3 villages.

C.3.c. Vegetable Cultivation: Considering the impact of COVID pandemic on small and marginal farmers and providing them support for uplifting their livelihoods. GMRVF and GWEL has planned to promote vegetable cultivation with small and marginal farming families from 7 project affected villages so as to improve economic condition of these families.

During this Kharif, GMRVF has targeted 173 SHG women from 58 SHGs from 7 villages. Marda (3 SHG & 8 beneficiaries), Charur Khati (16 SHG & 56 beneficiaries), Majra Rai (4 SHG & 13 beneficiaries), Naidev (6 SHG & 14 beneficiaries), Dahegaon (14 SHG & 32 beneficiaries), Dongargaon (9 SHG & 16 beneficiaries) and Nimsada (6 SHG & 34 beneficiaries). All member of SHGs has contributed 50% seeds (equivalent to Rs. 1 Lakhs) for cultivating vegetables in villages. 11 types of vegetable seeds such as Brinjal (eggplant), Chilly, Cauliflower, Okra, Spinach, Tomato, Cowpea, Bitter Guard, Ridge Guard, Cluster bean and Tinda Guard provided in villages. Total 38 acres of land will be covered by the

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cultivation of vegetable during this Kharif. During the month 31 SHG members reported damage in their vegetable plots due to wild animal invasion and water logging due to heavy rains. The growth of other members vegetable plots are very good well as well as the condition of crop is good. 12 out of 141 vegetable grower have harvested 220 kgs of vegetable during the month and earned nearly Rs. 2,500/-

C.3.c. Floriculture: This year in the month of June and July, a total 8 farmers from 5 villages has purchased 1000 flowers plants each. GMRVF has supported 500 plants to each farmers for promoting floriculture in villages. Thus all eight farmers has done plantation of 12000 plants. One farmer has reported damage in crops while rest 7 farmers informed healthy and good growth of flower plants. GMRVF giving the proper guidance to farmers by agricultural experts. The harvesting of the same started during this period and farmers have sold 725 kg of flowers and earned Rs 37,000/- till the end of Aug 21.

C.4 SWADAAN: The Swadaan programs organized to create a feeling of giving back to beneficiaries of GMRVF programs and to seek their contribution for various CSR activities. Keeping this in view, 35 Swadaan activities organized at different villages by 35 old beneficiaries and helped more than 265 beneficiaries of After School Learning Center, E-Center, Nutrition center, Tailoring center and Navodaya Center.

#### D. COVID RESPONSE

- Health clinics operated in 10 villages (virtual and offline both) treated 2118 people.
- MMU operated in 22 villages and served 1649 old aged.
- Fogging is continued in 8 villages. Dengue is outburst in Dongargaon. As of now total 6 patients
  detected at Dongargaon and therefore, with the support from Panchayat Samittee special fogging
  operating conducted in day hours at Dongargaon (Tuesday); Dahegaon (Wednesday); Marda
  (Monday) and Nimsada (Friday).
- Vaccination program supported in 10 villages that helped to vaccinate 1216 people
- Vaccination awareness program started at MMU villages with the support from AER RIANTA INTERNATIONAL (ARI). 14 awareness session organized that covered 2745 old aged.
- Drain Cleaning work performed in Nimsada village so as to save community from vector borne diseases.
- Distributed sanitizer (55 Ltr), Sodium Hypo Chloride (38 Ltr), Hand wash (15 Ltr) and 2050 cotton masks at Health clinics, Gram Panchayats and Water ATM.

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## GLIMPSES



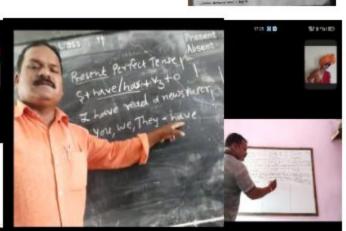






The application of the second of the second

ASLC and E-Center Activities





Pratibha Center



Water ATM



**Vocational Training Center Activities** 

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**Health Clinic** 





# GMR Varalakshmi Foundation GMR Warora Energy Ltd, Warora









Floriculture

Vegetable Cultivation

# GMR Warora Energy Ltd, Warora



Mobile Medical Unit and ARI Vaccination Awareness Program

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COVID RESPONSE

Post Lockdown Awareness



**SWADAAN** 

# GMR Warora Energy Ltd, Warora



**Nutrition Supply at Nutrition Center** 



Home Isolation and Vaccination Awareness by Social Voluntary Project Team

#### Effluent Water Analysis (Apr.2021 to Sep.2021)

Condensate Cooling Water						
F-0						
Month	pН	mg/L				
April	8.0	0.052				
May	8.1	0.048				
June	8.3	0.044				
July	8.4	<0.05				
August	8.4	<0.05				
September	8.4	<0.05				

		_	
F - Cl	PO <sub>4</sub>	Cr	Zn
	mg	/L	
<0.05	1.58	N.D.	0.018
<0.05	3.67	<0.1	0.018
< 0.05	2.62	<0.1	0.039
< 0.05	0.872	N.D.	0.039
< 0.05	<0.05	N.D.	0.019
< 0.05	1.02	N.D.	0.041

A STATE OF THE	1		1
TSS	OG	Cu	Fe
	r	ng/L	
<5	N.D.	N.D.	0.143
<5	N.D.	<0.04	0.291
<5	N.D.	<0.04	0.252
<5	N.D.	N.D.	0.275
<5	N.D.	<0.04	0.113
<5	N.D.	N.D.	0.208

DM Plant Effluent									
		TDS	TSS	BOD	COD	O & G			
Month	pН			mg/L					
April	8.6	720	<5	8.4	28	N.D.			
May	7.8	1056	17	4.9	18	N.D.			
June	7.1	972	15	17	28	N.D.			
July	8.0	559	12	8.4	28	N.D.			
August	8.3	520	11	8.4	28	N.D.			
September	8.3	708	8	10	32	N.D.			

STP- Inlet									
		TDS	TSS	BOD	COD	0 & G			
Month	pН			mg/L	•				
April	7.6	855	12	9.7	32	N.D.			
May	7.7	1152	10	19	38	N.D.			
June	7.5	1344	12	11	46	N.D.			
July	7.5	989	13	8.2	28	N.D.			
August	8.1	380	21	9.7	32	N.D.			
September	7.4	810	8	10	32	N.D.			

STP- Outlet									
		TDS	TSS	BOD	COD	0 & G			
Month	pН		110	mg/L	99	12			
April	7.8	631	<5	7.3	24	N.D.			
May	7.9	1069	<5	4.8	22	N.D.			
June	7.5	1324	10	7.4	29	N.D.			
July	7.1	660	11	6.0	20	N.D.			
August	8	380	17	8.4	28	N.D.			
September	7.5	1050	6	7.3	24	N.D.			

#### Ambient Noise Monitoring (Apr. 2021 to Sep. 2021)

		Near CHP		Near Switch Yard		Near Reservoir			
Sl. No.	Month	Day	Night	Day	Night	Day	Night		
		dB(A)							
1	April	64.3	60.4	61.7	59.3	60.0	61.2		
2	May	55.5	52.1	60.6	57.5	61.8	60.0		
3	June	57.5	53.5	55.3	51.4	60.5	55.6		
4	July	58.2	54.9	54.1	50.3	54.2	52.1		
5	August	58.2	54.9	54.2	52.1	54.1	50.3		
6	September	65.1	61.3	62.3	60.1	61.0	60.3		

#### Work Zone Noise Monitoring (Apr. 2021 to Sep. 2021)

SI. Month	Boiler	Floor	Turbine	e Floor		ressor Area	Gene	bine ration it-l	Gene	rbine eration nit-II	
No.		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
			d.			dB	(A)				
1	April	82.9	87.0	83.5	86.8	75.8	80.4	82.1	85.8	81.5	85.9
2	May										
3	June										
4	July	82.7	86.0	81.0	86.5	72.8	80.8	80.1	83.6	80.0	85.0
5	August										
6	September	82.4	87.1	83.3	86.9	75.9	80.5	82.3	84.4	81.3	85.2

#### Ambient Air Quality Monitoring (Apr.2021 to Sep.2021)

April					
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	9.61	10.76	12.68
NO <sub>2</sub>	3	80	14.05	14.88	15.65
PM <sub>10</sub>	μg/m³	100	57.75	60.25	58.25
PM <sub>2.5</sub>		60	22.00	26.25	20.00

may					
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	13.55	10.43	15.54
NO <sub>2</sub>	3	80	12.11	19.52	20.12
PM <sub>10</sub>	μg/m³	100	47.71	52.30	57.25
PM <sub>2.5</sub>		60	25.78	24.60	27.80

June					
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	12.39	18.12	15.17
NO <sub>2</sub>	3	80	20.50	18.84	26.91
PM <sub>10</sub>	µg/m³	100	68.89	51.55	58.18
PM <sub>2.5</sub>		60	26.61	24.56	27.24

July		0,94			77
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	9.87	9.87	9.43
NO <sub>2</sub>	3	80	15.58	16.38	15.13
PM <sub>10</sub>	µg/m³	100	54.75	56.75	59.50
PM <sub>2.5</sub>		60	21.00	23.00	22.75

August					W.
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	11.49	11.28	10.23
NO <sub>2</sub>		80	15.33	14.18	13.03
PM <sub>10</sub>	µg/m³	100	57.25	51.50	55.25
PM <sub>2.5</sub>		60	21.75	19.50	21.75

September					
Parameters	Unit	Standard	Near Switch Yard	Near Reservoir	Near CHP
SO <sub>2</sub>		80	9.56	10.85	10.65
NO <sub>2</sub>	, 3	80	14.00	14.00	13.98
PM <sub>10</sub>	μg/m³	100	58.00	59.00	52.00
PM <sub>2.5</sub>		60	22.25	21.75	21.00

#### Stack Emission Monitoring (Apr. 2021 to Sep. 2021)

#### <u>Unit -I</u>

SI.	ii b	PM	SO <sub>2</sub>	NOx		
No.	Month	mg/Nm <sup>3</sup>				
1	April	42.5	1280.0	269.5		
2	May	40.5	1147.5	262.5		
3	June	38.0	1122.5	270.5		
4	July	32.0	1296.0	260.0		
5	August	38.0	1088.5	284.5		
6	September	41.0	1092.5	258.5		

#### <u>Unit -II</u>

SI.	0 - 4	PM	SO <sub>2</sub>	NOx		
Sl. No.	Month	mg/Nm <sup>3</sup>				
1	April	47.0	1165.0	262.0		
2	May	41.0	1207.5	259.5		
3	June	40.0	1247.0	252.0		
4	July 35.0		1213.0	266.0		
5	August 43.0		1143.0	271.5		
6	September	37.0	1277.0	256.5		



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Test Report

Report No.: ME-NG1	3116-210921-SA-0	GMR-WARORA	Date: 21.09.2021
		ENERGY LIMITED.	Order Reference
Name and Address of Customer	Plot No. B-1, Moi Center, Post & To Dist: Chandrapur		4800159131 Dt.:03.02.2021
Sample Description/Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.1	Sample Quantity/Packing	Thimble PM: 1 X 1 No. SO <sub>2</sub> : 30mL X 1 No. PVC Bottle NOx:25mL X 1 No. PVC Bottle Hg: 200mL X2 No. PVC Bottle
Date of Sampling	13.09.2021	Date of Receipt of Sample	14.09.2021
Sampling Procedure	As per Method R	eference	
Date of Start of Analysis	14.09.2021	Date of Completion of Analysis	20.09.2021

Stack Details			The state of the s		
Stack Identity			Unit No. 1		
Stack attached to				ESP Outlet	
Material of construction				RCC	
Stack height above grou	and level (M	eter)		275	
Stack diameter (Meter)	I I Strand and I shared black to the			5.0	
Stack shape at top				Round	
Type of fuel			Coal		
Parameter	Unit	Result	#Limit	Method Reference	
Flue gas temperature	°C	125	-	IS:11255 (Part 3):2008	
Flue gas velocity	m/s	24.9		IS:11255 (Part 3):2008	
Total gas quantity	Nm <sup>3</sup> /h	1259065	-	IS:11255 (Part 3):2008	
Particulate Matter (PM)	mg/Nm <sup>3</sup>	22	50	IS:11255 (Part 1):1985, RA 2003	
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	1103	-	IS 11255 (Part 2): 1985, RA 2003	
Sulphur Dioxide (SO <sub>2</sub> )	kg/day	33330	. (=)	IS 11255 (Part 2): 1985, RA 2003	
Oxides of Nitrogen (NO <sub>x</sub> )	mg/Nm <sup>3</sup>	282	300	IS 11255 (Part 7):2005	
Mercury (Hg)	mg/Nm³	0.0011	0.03	CPCB Guidelines on Methodologies for Source Emission Monitoring, Chapter 5&6; Pg. No. 54-84	

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Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagpur-441111

Phone: 91-712-2612162, 2612212, WP:9326279040 Email: mahabal.nagpur@gmail.com

Test Report

		opt rtop ort	
Report No.: ME-NG1:	3653-210928-SA-G	MR-WARORA	Date: 28.09.2021
150		NERGY LIMITED.	Order Reference
Name and Address of Customer	Plot No. B-1, Moh Center, Post & Te Dist: Chandrapur		4800159131 Dt.:03.02.2021
Sample Description/Type	Stack Emission Monitoring	Sample Collected by	Laboratory
Sampling Location	Unit No.1	Sample Quantity/Packing	Thimble PM: 1 X 1 No. SO <sub>2</sub> : 30mL X 1 No. PVC Bottle NOx:25mL X 1 No. PVC Bottle
Date of Sampling	24.09.2021	Date of Receipt of Sample	25.09.2021
Sampling Procedure	As per Method Re	ference	
Date of Start of Analysis	25.09.2021	Date of Completion of Analysis	27.09.2021

Stack Details					
Stack Identity			Unit No. 1		
Stack attached to				ESP Outlet	
Material of construction				RCC	
Stack height above grou	ind level (M	eter)		275	
Stack diameter (Meter)	A(CCA)	-12/		5.0	
Stack shape at top			Round		
Type of fuel			Coal		
Parameter	Unit	Result	#Limit	Method Reference	
Flue gas temperature	°C	128	-	IS:11255 (Part 3):2008	
Flue gas velocity	m/s	25.0		IS:11255 (Part 3):2008	
Total gas quantity	Nm³/h	1250726	-	IS:11255 (Part 3):2008	
Particulate Matter (PM)	mg/Nm <sup>3</sup>	41	50	IS:11255 (Part 1):1985, RA 2003	
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	1225	-	IS 11255 (Part 2): 1985, RA 2003	
Sulphur Dioxide (SO <sub>2</sub> )	kg/day	36771	-	IS 11255 (Part 2): 1985, RA 2003	
Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	270	300	IS 11255 (Part 7):2005	

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**Test Report** 

Report No.: ME-NG:	12749-210915-SA-GI	MR-WARORA	Date: 15.09.2021	
Name and	GMR WARORA EN		Order Reference	
Address of Customer	Plot No. B-1, Moha Center, Post & Teh Dist: Chandrapur (	sil: Warora,	4800159131 Dt.:03.02.2021	
Sample Description/Type	Ambient Air	Sample Collected by	Laboratory	
Sampling Location	Near CHP     Near Reservoir     Near Switch     Yard	Sample Quantity/ Packing	PM <sub>10</sub> :Filter Paper 3 X 3 No. PM <sub>2.5</sub> :Filter Paper 1 X 3 No. SO <sub>2</sub> :30 mL X 18 No. PVC Bottle NO <sub>2</sub> :30 mL X 18 No. PVC Bottle CO: Bladder 2L X 9 No.	
Date of Sampling	06.09.2021 To 07.09.2021	Date of Receipt of Sample	07.09.2021	
Sampling Procedure	As per method refe	erence		
Date of Start of Analysis	07.09.2021	Date of Completion of Analysis	15.09.2021	

Parameter		Unit	Result	#NAAQM Standard	Method Reference				
Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)									
Location	1. Near CHP		Duration	of Survey	24 hours				
Sulphur Dioxi	de (SO <sub>2</sub> )	μg/m³	7.65	80	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6				
Nitrogen Diox	ride (NO <sub>2</sub> )	μg/m³	12.3	80	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10				
Particulate Mathan 10 µm) o	atter (size less or PM <sub>10</sub>	µg/m³	54	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14				
Particulate Mathan 2.5 µm)	atter (size less or PM <sub>2.5</sub>	μg/m³	21	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30				
Carbon Mono	oxide (CO)	mg/m <sup>3</sup>	1.04	04	CPCB Guidelines for the Measuremen of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)				
Lead (as Pb)		μg/m³	<0.02	1.0	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume 1, 2012-13, Page No.48-55				



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Engineer, Consultant, Environmental Monitoring Laboratory & Contractor Continuation Sheet

Report No.12749 Cont...

Par	ameter	Unit	Result	#NAAQM Standard	Method Reference
Location	2. Near Rese	rvoir	Duration	n of Survey	24 hours
Sulphur Dioxi	ide (SO <sub>2</sub> )	µg/m³	8.50	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	kide (NO <sub>2</sub> )	μg/m³	11.5	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate M than 10 µm) (	atter (size less or PM <sub>10</sub>	µg/m³	58	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate M than 2.5 µm)	atter (size less or PM <sub>2.5</sub>	μg/m³	20	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Mono	oxide (CO)	mg/m³	0.70	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)
Lead (as Pb)		μg/m³	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Location	3.Near Switch	h Yard	Duratio	n of Survey	24 hours
Sulphur Dioxi	ide (SO <sub>2</sub> )	µg/m³	7.65	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )		μg/m³	13.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate M than 10 µm)	atter (size less or PM <sub>10</sub>	µg/m³	62	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate M than 2.5 µm)	atter (size less or PM <sub>2.5</sub>	μg/m³	24	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m³	0.66	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)
Lead (as Pb)		μg/m³	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55

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Phone: 91-712-2612162, 2612212, WP:9326279040 Email: mahabal.nagpur@gmail.com

Test Report

Report No.: ME-NG	13117-210921-SA-G	MR-WARORA	Date: 21.09.2021
Name and	GMR WARORA EN		Order Reference
Address of Customer Plot No. B-1, Mohabala MIDC Growth Center, Post & Tehsil: Warora, Dist: Chandrapur (M.S.)			4800159131 Dt.:03.02.2021
Sample Description/Type	Ambient Air	Sample Collected by	Laboratory
Sampling Location	Near CHP     Near Reservoir     Near Switch     Yard	Sample Quantity/ Packing	PM <sub>10</sub> :Filter Paper 3 X 3 No. PM <sub>2.5</sub> :Filter Paper 1 X 3 No. SO <sub>2</sub> :30 mL X 18 No. PVC Bottle NO <sub>2</sub> :30 mL X 18 No. PVC Bottle CO: Bladder 2L X 9 No.
Date of Sampling	13.09.2021 To 14.09.2021	Date of Receipt of Sample	14.09.2021
Sampling Procedure	As per method refe	erence	
Date of Start of Analysis	14.09.2021	Date of Completion of Analysis	20.09.2021

Parameter		Unit	Result	#NAAQM Standard	Method Reference
Discipline: (	Chemical Test	ing; Produ	ct Group: A	tmospheric P	ollution (Ambient Air)
Location	1. Near CH	Р	Duratio	n of Survey	24 hours
Sulphur Dioxide (SO <sub>2</sub> )		µg/m³	12.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )		µg/m³	15.3	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		µg/m³	63	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 μm) or PM <sub>2.5</sub>		μg/m³	25	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m³	0.72	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)



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Continuation Sheet

Report No.13117 Cont...

Para	meter	Unit	Result	#NAAQM Standard	Method Reference	
Location	2. Near Res	ervoir	Duratio	n of Survey	24 hours	
Sulphur Dioxi	ide (SO <sub>2</sub> )	µg/m³	11.9	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Diox	ride (NO <sub>2</sub> )	µg/m³	14.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
Particulate Mithan 10 µm) o	atter (size less or PM <sub>10</sub>	μg/m³	57	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5 μm) or PM <sub>2.5</sub>		µg/m³	20	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30	
Carbon Monoxide (CO)		mg/m³	0.59	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)	
Location	3.Near Swit	ch Yard	<b>Duration of Survey</b>		24 hours	
Sulphur Dioxi	de (SO <sub>2</sub> )	μg/m³	13.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Diox	ride (NO <sub>2</sub> )	μg/m³	16.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
	Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		60	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		μg/m³	22	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30	
Carbon Mono	xide (CO)	mg/m³	0.69	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)	

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Test Report

Report No.: ME-NG	13413-210927-SA-G	MR-WARORA	Date: 27.09.2021		
Name and	GMR WARORA EN		Order Reference		
Address of Customer	Plot No. B-1, Moha Center, Post & Teh Dist: Chandrapur (	4800159131 Dt.:03.02.2021			
Sample Description/Type	Ambient Air	Sample Collected by	Laboratory		
Sampling Location	Near CHP     Near Reservoir     Near Switch     Yard	Sample Quantity/ Packing	PM <sub>10</sub> :Filter Paper 3 X 3 No. PM <sub>2.5</sub> :Filter Paper 1 X 3 No. SO <sub>2</sub> :30 mL X 18 No. PVC Bottle NO <sub>2</sub> :30 mL X 18 No. PVC Bottle CO: Bladder 2L X 9 No.		
Date of Sampling	20.09.2021 To 21.09.2021	Date of Receipt of Sample	21.09.2021		
Sampling Procedure	As per method reference				
Date of Start of Analysis	21.09.2021	Date of Completion of Analysis	25.09.2021		

Parameter		Unit	Result	#NAAQM Standard	Method Reference				
Discipline:	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)								
Location	1. Near CHP		Duration	of Survey	24 hours				
Sulphur Dioxide (SO <sub>2</sub> )		µg/m³	12.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6				
Nitrogen Dioxide (NO <sub>2</sub> )		µg/m³	15.3	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume 1, 2012-13, Page No.7-10				
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		µg/m³	39	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14				
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		μg/m³	16	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30				
Carbon Monoxide (CO)		mg/m³	0.89	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)				



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Continuation Sheet

Report No.13413 Cont...

Parameter		Unit	Result	#NAAQM Standard	Method Reference
Location	2. Near Rese	rvoir	Duration	n of Survey	24 hours
Sulphur Dioxi	ide (SO <sub>2</sub> )	µg/m³	10.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	ride (NO <sub>2</sub> )	μg/m³	14.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		μg/m³	64	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		µg/m³	23	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m <sup>3</sup>	0.73	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)
Location	3.Near Switch	h Yard	Duration of Survey		24 hours
Sulphur Dioxi	de (SO <sub>2</sub> )	μg/m³	8.50	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	ide (NO <sub>2</sub> )	μg/m³	12.3	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 μm) or PM <sub>10</sub>		μg/m³	52	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		μg/m³	18	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Mono	xide (CO)	mg/m³	0.76	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)

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**Test Report** 

Report No.: ME-NG	13845-211005-SA-G	Date: 05.10.2021	
Name and	GMR WARORA EN		Order Reference
Address of Customer	Plot No. B-1, Moha Center, Post & Teh Dist: Chandrapur (	sil: Warora,	4800159131 Dt.:03.02.2021
Sample Description/Type	Ambient Air	Sample Collected by	Laboratory
Sampling Location	Near CHP     Near Reservoir     Near Switch     Yard	Sample Quantity/ Packing	PM <sub>10</sub> :Filter Paper 3 X 3 No. PM <sub>2.5</sub> :Filter Paper 1 X 3 No. SO <sub>2</sub> :30 mL X 18 No. PVC Bottle NO <sub>2</sub> :30 mL X 18 No. PVC Bottle CO: Bladder 2L X 9 No.
Date of Sampling	27.09.2021 To 28.09.2021	Date of Receipt of Sample	28.09.2021
Sampling Procedure	As per method refe	erence	
Date of Start of Analysis	28.09.2021	Date of Completion of Analysis	02.10.2021

Parameter		Unit	Result	#NAAQM Standard	Method Reference
Discipline: (	Chemical Testin	g; Product	Group: Atm	ospheric Pol	ution (Ambient Air)
Location	1. Near CHP		Duration	of Survey	24 hours
Sulphur Dioxide (SO <sub>2</sub> )		µg/m³	9.35	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )		μg/m³	13.0	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		μg/m³	52	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		μg/m³	22	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m³	0.96	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)





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Continuation Sheet

Report No.13845 Cont...

Parameter		Unit	Result	#NAAQM Standard	Method Reference
Location	2. Near Rese	rvoir	Duration	n of Survey	24 hours
Sulphur Dioxi	de (SO <sub>2</sub> )	µg/m³	12.8	80	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	ide (NO <sub>2</sub> )	μg/m³	15.3	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 µm) or PM <sub>10</sub>		μg/m³	57	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 μm) or PM <sub>2.5</sub>		µg/m³	24	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m³	1.15	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)
Location 3.Near Switch Y		h Yard	Duration of Survey		24 hours
Sulphur Dioxid	de (SO <sub>2</sub> )	μg/m³	8.50	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxi	de (NO <sub>2</sub> )	µg/m³	13.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10 μm) or PM <sub>10</sub>		μg/m³	58	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub>		μg/m³	25	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Carbon Monoxide (CO)		mg/m³	1.23	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)

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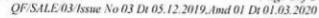


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**Test Report** 

Report No.: ME-NG	13652-210930-SA	Date: 30.09.2021			
Name and		ENERGY LIMITED.	Order Reference		
Address of Customer	Center, Post & T Dist: Chandrapu	ehsil: Warora,	4800159131 Dt.:03.02.2021		
Sample Description/Type	Ambient Air	Sample Collected by	Laboratory		
Sampling Location	Temporary     Township     Anandwan     Warora	Sample Quantity/ Packing	PM <sub>10</sub> , Pb:Filter Paper 3 X 2 No. PM <sub>2.5</sub> :Filter Paper 1 X 2 No. SO <sub>2</sub> :30mL X 12 No. PVC Bottle NO <sub>2</sub> :30mL X 12 No. PVC Bottle CO: Bladder 2L X 6 No.		
Date of Sampling	24.09.2021 To 25.09.2021	Date of Receipt of Sample	25.09.2021		
Sampling Procedure	As per method reference				
Date of Start of Analysis	25.09.2021	Date of Completion of Analysis	29.09.2021		

Parameter		Unit	Result	#NAAQM Standard	Method Reference
Location	Temporar     Township	у	Duration	of Survey	24 hours
Discipline: C	Chemical Testin	g; Product	Group: Atm	ospheric Poll	ution (Ambient Air)
Sulphur Dioxi	de (SO <sub>2</sub> )	μg/m³	11.9	80	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	ide (NO <sub>2</sub> )	μg/m³	16.1	80	CPCB Guidelines for the Measuremen of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Ma than 10 µm) o	atter (size less or PM <sub>10</sub>	hg/w <sub>3</sub>	39	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Ma than 2.5 µm) (	atter (size less or PM <sub>2.5</sub>	μg/m³	15	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Lead (Pb)		µg/m³	<0.02	01	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Mono	xide (CO)	mg/m³	1.09	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)



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Continuation Sheet

Report No.13652 cont...

Location	2. Anandwan	Warora	Duration of Survey		24 hours
Parameter		Unit	Unit Result		Method Reference
Sulphur Dioxide (SO <sub>2</sub> )		µg/m³	12.8	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Diox	xide (NO <sub>2</sub> )	µg/m³	16.9	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate M than 10 µm)	latter (size less or PM <sub>10</sub>	µg/m³	59	100	IS 5182 (Part 23): 2006
Particulate M than 2.5 µm)	latter (size less or PM <sub>2.5</sub>	µg/m³	23	60	CPCB Guidelines for measurement of Air pollutants Volume 1, Page 15 - 30
Lead (Pb)		µg/m³	<0.02	01	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide (CO)		mg/m³	0.76	04	CPCB Guidelines for the Measurement of Ambient Air Pollutants Volume-II, 2012-13, Page No. 16-22, (NDIR method)

Remarks: #- Standard for 24 h. monitoring. 1 h. Standard in case of Carbon Monoxide

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Test Report

Penert No . ME NO	13049 310019 CA CM	WARORA	D-4 10 00 2021
Report No.: ME-NG	Date: 18.09.2021		
Name and Address of Customer	Plot No. B-1, Mohabal Post & Tehsil: Warora Dist: Chandrapur (M.S	Order Reference 4800159131 Dt.:03.02.2021	
Sample Description/Type	Fugitive Emission	Sample Collected by	Laboratory
Sampling Location	Near Wagon     Tippler Area     Near Crusher     House     Near Between Ash     Silo & Ash Pond     Area     Near Ash Pond     Drive House Area	Sample Quantity/Packing	Filter paper 1 X 4 No. Cyclone Cup: 1 X 4 No.
Date of Sampling	11.09.2021	Date of Receipt of Sample	13.09.2021
Sampling Procedure	As per Method Reference	Duration of Survey	8 hours
Date of Start of Analysis	13.09.2021	Date of Completion of Analysis	16.09.2021

Parameter	Unit		Res	sult			
Parameter	Onic	1	2	3	4	#Limit	Method Reference
Discipline: Chemical	Testing; P	roduct G	roup: At	mosphe	ric Pollu	tion (Fug	tive Emission)
Suspended Particular Matter	μg/m³	1263	1059	1797	1337	2000	IS 5182 (Part 4): 1999

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Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra



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**Test Report** 

Report No.: ME-NG	13765-211004-SA-GMF	R-WARORA	Date: 04.10.2021		
Name and Address of Customer	GMR WARORA ENER Plot No. B-1, Mohabal Post & Tehsil: Warora	Plot No. B-1, Mohabala, MIDC Growth Center, Post & Tehsil: Warora, Pists Chandragus (M.S.)			
Sample Description/Type	Dist: Chandrapur (M.S Workplace Air	Laboratory			
Sampling Location	1. CHP Transformer house - 02 2. CHP Penthouse 3. CHP Crusher House 4. CHP Bunker Floor 5. AHP/Fly Silo Area	Sample Quantity/Packing	Filter paper 1 X 5 No.		
Date of Sampling	25.09.2021	Date of Receipt of Sample	27.09.2021		
Sampling Procedure	As per Method Reference	Duration of Survey	1 hours		
Date of Start of Analysis	27.09.2021	Date of Completion of Analysis	02.10.2021		

	10000			Result				M-M-4 D-6
Parameter	Unit	1	2	3	4	5	#Limit	Method Reference
Total Dust	mg/m³	3.84	2.74	1.82	2.20	3.53	10	NIOSH 0500

Remarks: #: Limit from The Factories Act, 1948, The Maharashtra Factory Rules, 1963 for 8 hours TWA (Time Weighted Average)

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**Test Report** 

Report No.: ME-NG1311	8-210921-SA-GMR-WARORA	Date: 21.09.2021	
	GMR WARORA ENERGY LIMITED.	Order Reference:	
Name and Address of Customer	Plot No. B-1, Mohabala MIDC Growth Center, Post & Tehsil: Warora , Dist: Chandrapur (M.S.)	4800159131 Dt.:03.02.2021	
Sample Description/Type	Noise Level Monitoring		
Date of Sampling	13.09.2021	(9)	
Sampling Procedure	IS 9876:1981		

		Result			
Location	Unit	Day Time	Night Time		
Near CHP	dB(A)	65.1	61.3		
Near Switch Yard	dB(A)	62.3	60.1		
Near Reservoir	dB(A)	61.0	60.3		
THE	NOISE POLLUTION (REG	ULATION AND CONTROL)	RULES, 2000		
	Catamany of Avon	Limit in dB(A)	weighted scale		
Area Code	Category of Area /Zone	Day Time (6.00a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)		
Α	Industrial Area	75	70		

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**Test Report** 

Report No.: ME-NG1311	9-210921-SA-GMR-WA	RORA	Date: 21.09.2021
	GMR WARORA ENER	Order Reference:	
Name and Address of Customer	Plot No. B-1, Mohabal Post & Tehsil: Warora Dist: Chandrapur (M.:	4800159131 Dt.:03.02.2021	
Sample Description/Type	Noise Level Monitoring	Sample Collected by	NA
Date of Sampling	13.09.2021	v	*
Sampling Procedure	IS 9876:1981	k <sub>in</sub>	

		Re	sult	
Location	Unit	Min.	Max.	#Limit
Compressor House Area	dB(A)	75.9	80.5	90
Boiler Floor	dB(A)	82.4	87.1	90
Turbine Floor	dB(A)	83.3	86.9	90
Turbine Generation Unit-1	dB(A)	82.3	84.4	90
Turbine Generation Unit-2	dB(A)	81.3	85.2	90

Remark: #: Limit from The Factories Act, 1948, The Maharashtra Factory Rules, 1963, Schedule XXIV Page No. 283-284 for 8h.

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Test Report

		Control of	HILL CONTRACTOR OF THE PARTY OF	
Report No.: ME-NG	12597-210911-SA	A-GMR-WARORA	Date: 11.09.2021	
Name and		ENERGY LIMITED.	Order Reference	
Address of Customer	Center, Post & Dist: Chandrapu	Tehsil: Warora,	4800159131 Dt.:03.02.2021	
Sample Description/Type	Industrial Effluent	Sample Collected by	Laboratory	
Sampling Location	Cooling Tower Blow Down	Sample Quantity/Packing	1 L X 1 No. PVC Can 500mL X 1 No. PVC Can	
Date of Sampling	02.09.2021	Date of Receipt of Sample	02.09.2021	
Sampling Procedure	IS:3025(Part I):	1987 RA2003, APHA 23	ord Ed. 2017, 1060-B, 1-40	
Date of Start of Analysis	02.09.2021	Date of Completion of Analysis	09.09.2021	

Sr. No.	Parameter	Unit	Result	Limit as Per Consent	Method Reference
Disc	ipline: Chemical Testing	g; Produ	ct Group:	Pollution & Env	ironment(Waste Water)
1	Free Chlorine (Residual)	mg/L	<0.05	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-Cl-G, 4-72
2	Phosphate Total (as P)	mg/L	1.02	5.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-P E, 4-164
Resi	dues in water (Trace m	etal Elei	ment)		
3	Chromium Total (as Cr)	mg/L	N.D.	0.2 Max.	IS 3025 (Part 2) 2019
4	Zinc (as Zn)	mg/L	0.041	1.0 Max.	IS 3025 (Part 2) 2019
Rem	ark;				

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Phone: 91-712-2612162, 2612212, WP:9326279040 Email: mahabal.nagpur@gmail.com

**Test Report** 

Report No.: ME-NG12	598-210911-SA-GMR-	-WARORA	Date: 11.09.2021	
•	GMR WARORA EN	ERGY LIMITED.	Order Reference:	
Name and Address of Customer	Post & Tehsil: Waro	Plot No. B-1, Mohabala MIDC Growth Center, Post & Tehsil: Warora , Dist: Chandrapur (M.S.)		
Sample Description/Type	Industrial Effluent	Sample Collected by	Laboratory	
Sampling Location	Condenser Cooling Water	Sample Quantity/Packing	1 L X 1 No. PVC Can	
Date of Sampling	02.09.2021	Date of Receipt of Sample	02.09.2021	
Sampling Procedure	IS:3025(Part I): 19	87 RA2003, APHA 23 <sup>rd</sup> Ed.	2017, 1060-B, 1-40	
Date of Start of Analysis	02.09.2021	Date of Completion of Analysis	03.09.2021	

Sr. No	Parameter	Unit	Result	Limit as per Consent	Method Reference
Disc	ipline: Chemical Tes	ting; Pro	duct Grou	up: Pollution & Enviro	onment (Waste Water)
1	Temperature	°C	29	Not to exceed 5°C higher than the intake water	APHA 23 <sup>rd</sup> Ed. 2017, 2550-B, 2-74
2	рН	-	8.4	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H*- B, 4-95
3	Total Free Chlorine (Residual)	mg/L	<0.05	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-G, 4-72

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**Test Report** 

Report No.: ME-NG	12599-210911-9	SA-GMR-WARORA	Date: 11.09.2021
Name and		A ENERGY LIMITED.	Order Reference
Address of Customer Plot No. B-1, Mohabala, MIDC Growth Center, Post & Tehsil: Warora, Dist: Chandrapur (M.S.)		4800159131 Dt.:03.02.2021	
Sample Description/Type	Domestic Effluent	Sample Collected by	Laboratory
Sampling Location	STP Inlet	Sample Quantity/Packing	2 L X 1 No. PVC Can 100mL X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	02.09.2021	Date of Receipt of Sample	02.09.2021
Sampling Procedure	IS:3025(Part I	): 1987 RA2003, APHA 23	rd Ed. 2017, 1060-B, 1-40
Date of Start of Analysis	02.09.2021	Date of Completion of Analysis	11.09.2021

Sr. No.	Parameter	Unit	Result	Method Reference
Disc	ipline: Chemical Testing	; Product (	Group: Pollutio	on & Environment (Waste Water)
1.	рН	-	7.4	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H+- B, 4-95
2.	Total Dissolved Solids	mg/L	810	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
3.	Total Suspended Solids	mg/L	8	APHA 23rd Ed. 2017, 2540-D, 2-70
4.	Biochemical Oxygen Demand (3 days 27°C)	mg/L	10	IS 3025 (Part 44): 1993, Reaffirmed 2009
5.	Chemical Oxygen Demand	mg/L	32	APHA 23 <sup>rd</sup> Ed. 2017, 5220-B, 5-18
6.	Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2009 Amds.1
Rem	arks: N.D Not Detected			

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Test Report

		restrictor		
Report No.: ME-NG:	12600-210911-5	A-GMR-WARORA	Date: 11.09.2021	
Name and Address of Customer	Plot No. B-1, N	A ENERGY LIMITED. Iohabala, MIDC Growth Tehsil: Warora, our (M.S.)	4800159131 Dt.:03.02.2021	
Sample Description/Type	Domestic Effluent	Sample Collected by \	Laboratory	
Sampling Location	STP Outlet	Sample Quantity/Packing	2 L X 1 No. PVC Can 100mL X 1 No. PVC Can 1 L X 1 No. Glass Bottle	
Date of Sampling	f Sampling 02.09.2021 Date of Receipt of Sample		02.09.2021	
IS:3025(Part I): 1987 RA2003, APHA 23			ard Ed. 2017, 1060-B, 1-40	
Date of Start of Analysis	02.09.2021	Date of Completion of Analysis	11.09.2021	

Sr. No.	Parameter	Unit	Result	# Limit	Method Reference
Disc	ipline: Chemical Testing	; Product	Group: Pollutio	n & Environme	ent (Waste Water)
1.	pН	_	7.5	5.5-9.0	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H+- B, 4-95
2.	Total Dissolved Solids	mg/L	1050	2100 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
3.	Total Suspended Solids	mg/L	6	50 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
4.	Biochemical Oxygen Demand (3 days 27°C)	mg/L	7.3	30 Max.	IS 3025 (Part 44): 1993, Reaffirmed 2009
5.	Chemical Oxygen Demand	mg/L	24	100 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5220-B, 5-18
6.	Oil and Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
7.	Calcium (as Ca)	mg/L	81	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca- B, 3-69
8.	Magnesium (as Mg)	mg/L	26.2	823	APHA 23 <sup>rd</sup> Ed. 2017, 3500- Mg- B, 3-86
9.	Sodium (as Na)	mg/L	35.2		APHA 23 <sup>rd</sup> Ed. 2017, 3500-Na- B, 3-99

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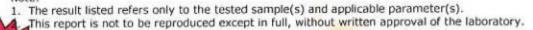
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Phone: 91-712-2612162, 2612212, WP:9326279040 Email: mahabal.nagpur@gmail.com

Test Report

Report No.: ME-NG	Date: 11.09.2021			
Name and		A ENERGY LIMITED. Mohabala, MIDC Growth	Order Reference	
Address of Customer		Tehsil: Warora,	4800159131 Dt.:03.02.2021	
Sample Industrial Sample Col		Sample Collected by	Laboratory	
Sampling Location	Ash Pond Effluent	Sample Quantity/Packing	1 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle	
Date of Sampling	02.09.2021	Date of Receipt of Sample	02.09.2021	
Sampling Procedure	rd Ed. 2017, 1060-B, 1-40			
Date of Start of Analysis	02.09.2021 Date of Completion of Analysis		09.09.2021	

Sr. No.	Parameter	Unit	Result	Limit as Per Consent	Method Reference
Discip	oline: Chemical Testing;	Product (	Group: Pol	lution & Environ	ment (Waste Water)
1.	pH	-	7.6	5.5-9.0	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H+- B, 4-95
2.	Total Suspended Solids	mg/L	9	100 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
3.	Oil and Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1

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Test Report

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Report No.: ME-NG	12602-210911-	SA-GMR-WARORA	Date: 11.09.2021	
Name and		A ENERGY LIMITED. Mohabala, MIDC Growth	Order Reference	
Address of Customer	Center, Post 8 Dist: Chandra	Tehsil: Warora,	4800159131 Dt.:03.02.2021	
Sample Description/Type	Industrial Effluent	Sample Collected by	Laboratory	
Sampling Location	D.M. Plant Effluent	Sample Quantity/Packing	2 L X 1 No. PVC Can 1 L X 1 No. Glass Bottle 100mL X 1 No. PVC Can	
Date of Sampling	ate of Sampling 02.09.2021 Date of Receipt of Sample		02.09.2021	
Sampling Procedure	grd Ed. 2017, 1060-B, 1-40			
Date of Start of Analysis	02.09.2021	Date of Completion of Analysis	09.09.2021	

Sr. No.	Parameter	Unit	Result	Limit as Per Consent	Method Reference
Disci	pline: Chemical Testing;	Product	Group: Pol	lution & Environ	ment (Waste Water)
1.	рН	-	8.3	5.5-9.0	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H+- B, 4-95
2.	Total Dissolved Solids	mg/L	708	2100 Max.	IS 3025 (Part 16):1984 RA 2006, Ed.2.1(1999-12)
3.	Total Suspended Solids	mg/L	8	100 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
4.	Biochemical Oxygen Demand (3 days 27°C)	mg/L	10	30 Max.	IS 3025 (Part 44): 1993, Reaffirmed 2009
5.	Chemical Oxygen Demand	mg/L	32	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5220-B, 5- 18
6.	Oil and Grease	mg/L	N.D.	10 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor Yeole

BRANCH MANAGER







#### Note:

The result listed refers only to the tested sample(s) and applicable parameter(s).

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Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra (Turn Opp Toyota Show Room 600 m from Hotel Rukhmini Palace. Next to Ashida Electrical. Near J B Sawant Bus Stop) Phone: 2582 0658/3139/1663/3154 Fax:+91-22-25823543 thane@mahabal.com



Engineer, Consultant, Environmental Monitoring Laboratory & Contractor Plot Nos. 13,14,17,18, Grampanchayat Bokhara, 8 km from Nagpur City,

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Phone: 91-712-2612162, 2612212, WP:9326279040 Email: mahabal.nagpur@gmail.com

Test Report

Report No.: ME-NG:	Date: 11.09.2021		
Name and	Order Reference		
Address of Customer		Mohabala, MIDC Growth Tehsil: Warora, our (M.S.)	4800159131 Dt.:03.02.2021
Sample Description/Type	Industrial Effluent	Sample Collected by	Laboratory
Sampling Location	Boiler Blow Down	Sample Quantity/Packing	1 L X 1 No. PVC Can 500mL X 1 No. PVC Can 1 L X 1 No. Glass Bottle
Date of Sampling	02.09.2021	Date of Receipt of Sample	02.09.2021
Sampling Procedure	IS:3025(Part I	d Ed. 2017, 1060-B, 1-40	
Date of Start of O2.09.2021 Date of Completion of Analysis			09.09.2021

Sr. No.	Parameter	Unit	Result	Limit as Per Consent	Method Reference
Disc	ipline: Chemical Test	ing; Produ	ct Group:	Pollution & Envi	ronment (Waste Water)
1	Total Suspended Solids	mg/L	<5	100 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
2	Oil and Grease	mg/L	N.D.	20 Max.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
Resi	dues in water (Trace	metal Eler	ment)		4
3	Copper (as Cu)	mg/L	N.D.	1.0 Max.	IS 3025 (Part 2) 2019
4	Iron (as Fe)	mg/L	0.208	1.0 Max.	IS 3025 (Part 2) 2019
Rem	ark: N.D. Not Detect	ed			

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD

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