

Ref: GREL-RJY/O&M/21/ 27

DT: 03/Jul/2021

To,

**Additional Principal Chief Conservator of Forests(C),**  
Ministry of Environment, Forest and Climate Change,  
Regional Office (SEZ),  
Ist and IInd floor, Handloom Export Promotion council,  
34, Cathedral Garden Road, Nungambakkam,  
**Chennai – 600034.**

Sub: -Submission of Six Monthly Environmental Compliance report.

Dear Sir,

We are here with submitting Six monthly Environmental Compliance report  
(From Jan-21 to Jun-21). Kindly acknowledge.

Thanking you,

Yours faithfully,

For GMR RAJAHMUNDRY ENERGY LIMITED



Mathews.P  
COO, Gas Assets

CC To

The Assessing Authority,, APPCB, Vijayawada  
The Regional Environmental Engineer, APPCB, Kakinada

Ref: GREL-RJY/O&M/21/ 28

DT: 03/Jul/2021

To,

**The Assessing Authority,**  
A.P Pollution Control Board,  
D.No. 33-26-14  
D/2, Near Sunrise Hospital,  
Pushpa Hotel Centre,  
Chalamvari Street, Kasturibaipet,  
Vijayawada – 520 008

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We are here with submitting Six monthly Environmental Compliance report (From Jan-21 to Jun-21). Kindly acknowledge.

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Mathews.P  
COO, Gas Assets

Ref: GREL-RJY/O&M/21/ 29

DT: 03/Jul/2021

To,  
**The Regional Environmental Engineer,**  
Andhra Pradesh Pollution Control Board,  
5.532, Shanthinagar,  
Opp.DIC Office, Ramanayyapeta,  
**Kakinada-533005.**

Sub: -Submission of Six Monthly Environmental Compliance report.

Dear Sir,

We are here with submitting six monthly Environmental Compliance report  
(From Jan-21 to Jun-21). Kindly acknowledge.

Thanking you,

Yours faithfully,

For GMR RAJAHMUNDRY ENERGY LIMITED



Mathews.P  
COO, Gas Assets

**SIX MONTHLY ENVIRONMENTAL COMPLIANCE  
REPORT**

**GMR RAJAHMUNDRY ENERGY  
LIMITED**

**Vemagiri Village,  
Kadium Mandal, East Godavari District,  
Andhra Pradesh  
Pin-533125, India**

**Jan-21 to Jun -21**

# **GMR RAJAHMUNDRY ENERGY LIMITED**

## **Environment Monitoring Report**

**Jan 21 to Jun 21**

### **INTRODUCTION**

GMR Rajahmundry Energy Ltd., promoted by GMR Group of companies with an installed capacity of 2X383.779 MW at Vemagiri village, Kadiyam Mandal of East Godavari District, Andhra Pradesh.

In order to establish baseline status, GMR Rajahmundry Energy Ltd had undertaken the post project Environment monitoring study in and around the plant site.

### **SITE LOCATION**

The project is located near village Vemagiri, about 12 kms South-East of Rajahmundry town in the East Godavari District of Andhra Pradesh, India. The site location Longitude is 81°48'57.61" to 81°48'16.27".Latitude is 16°55'44.08" to 16°55'12.24".

The site measuring around 80 acres is very close to Rajahmundry-Kakinada High Way No.NH5 at a distance of 1.5 km.Rajahmundry is nearest Railway Station located at a distance of 12 km and Rajahmundry is nearest Airport at a distance of 32 km & Kakinada Sea Port distance of 60 km from project site. The site is accessible both by road and railway.

# **GMR RAJAHMUNDRY ENERGY LIMITED**

## **Environment Monitoring Report**

**Jan 21 to Jun 21**

### **CONTENTS**

- EC,CFE and CFO Compliance
- Meteorological Data
- Ambient Air Quality monitoring
- Stack Emission monitoring for Heat Recovery Steam Generator stack
- Effluent Quality Monitoring
- Noise level measurement inside the plant (Day & Night).
- Water balance report.

**Compliance Status for EC J-13012/82/2008-IA.II (T) dated January 28, 2010**

	<b>Conditions</b>	<b>Status</b>
I	It is noted that Natural gas will be used as fuel for the power plant. In case the fuel is changed from natural gas to any other fuel, liquid or solid, the proponent shall apply for such a change in environmental clearance along with necessary requisite documents as per the EIA Notification, 2006 (and its amendments). In such a case, the requirement of holding fresh public hearing/consultation will be determined by the Expert Appraisal Committee.	GMR Rajahmundry Energy Ltd units are designed for Natural Gas firing only.
II	Two stacks of 70 m each shall be provided with continuous online monitoring equipments. Exit velocity of flue gases shall not be less than 25 m/sec.	Two stacks of 70 m each installation completed along with continuous online monitoring equipment.
III	Closed cycle cooling system with natural draft cooling tower shall be provided. The effluents shall be treated to conform to prescribed norms.	Provided closed cycle cooling system with induced draft type. Effluents shall be treated and complied as per norms.
IV	No ground water shall be extracted for the project work at any stage.	Noted and accepted.
V	The treated effluent conforming to the prescribed standards only shall be discharged.	The monitoring of liquid effluents shall be carried out regularly by GREL and third party
VI	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt / plantation. Continuous monitoring of effluent discharge shall be undertaken and it shall be ensured that when discharge enters the natural drain the temperature of effluent shall be at ambient.	Existing GVPGL STP is in operation. GVPGL and GREL are located in the same complex. Common effluent treatment system shall be utilized for both GMR Units.
VII	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.	GVPGL and GREL are located in the same complex. Existing Common rain water harvesting system connected to the total complex.
VIII	Adequate safety measures shall be provided in the plant area to check / minimize spontaneous fires in the gas storage area, especially during summer season. Copy of these measures with full details along with location in plant layout shall be submitted to the ministry as well as to the Regional Office of the ministry.	The unit has set up an EHS dept. to manage safety and fire related issues. Details of safety measures shall be submitted to the Board.
IX	Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS (if any) 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 any accident taking place due to storage of oils.	Plant is designed for 100% natural gas firing only.
X	Green Belt consisting of 3 tiers of plantations around the plant of 150 m width and adequate tree density not less than 2500 per ha with survival rate not less than 70% shall be developed. In areas where 100 m width is not possible at least not less than 50 m width shall be raised with adequate justification submitted to the	33% Green belt development program was completed against built up area as per consent order

	Regional Office of the Ministry.	
XI	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	complied
XII	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dB (A). 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.	Personnel protective equipment provided to the high noise area people. Regular noise level monitoring is being carried out.
XIII	Regular monitoring of ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , RSPM (PM <sub>10</sub> & PM <sub>2.5</sub> ) etc. 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.	complied
XIV	Action plan for R&R (as applicable) with suitable package for the project affected persons shall be submitted and implemented at least as per prevalent R&R policy within three months from the date of issue of this letter.	Not applicable.
XV	An amount of Rs 10.0 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 2.0 Crores 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 with. CSR Programmes are being conducted through GMR Varalakshmi Foundation
XVI	As part of CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs.	Complied. CSR Programmes are being conducted through GMR Varalakshmi Foundation.
XVII	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	complied
XVIII	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 information was published in local newspaper.



	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 <a href="http://envfor.nic.in">http://envfor.nic.in</a>	
XIX	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad / 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 on the website of the Company by the proponent.	Documents have been submitted.
XX	A dedicated Environment management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	GMR Group has set up an environment management cell to manage environmental related issues.
XXI	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, RSPM (PM10 & PM2.5), SO2, NOx, (ambient as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	Regular monitoring is being carried out and compliance data shall be up loaded in the company web site. Display board installation completed.
XXII	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.	The compliance report is being prepared once in six months and sent Regional office of MOEF and CPCB at Chennai.
XXIII	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.	Shall be complied
XXIV	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.	The compliance report is being prepared once in six months and sent Regional office of MOEF and CPCB at Chennai regularly. Compliance data shall be up loaded in the Web site.
XXV	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the	complied

	<p>stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least on a six monthly basis. Criteria pollutants levels including NOx (from stack &amp; ambient air) shall be displayed at the main gate of the power plant.</p>	
XXVI	<p>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.</p>	Noted and accepted
XVII	<p>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.</p>	complied
.XXVII I	<p>Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.</p>	Noted and accepted.

**Compliance Status for Consent for Establishment order No.316/PCB/CFE/RO-KKD/HO/2009-558 dated May 31, 2010**

**SCHEDULE-A**

	<b>Conditions</b>	<b>Status</b>
1.	Progress on implementation of the project shall be reported to the concerned Regional Office.A.P.Pollution Control Board once in six months.	Complied. Six monthly compliance status reports being submitted regularly.
2.	Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.	Effluent treatment plant is common for both GMR Vemagiri Power Generation Ltd and GMR Rajahmundry Energy Limited. Meter is provided for common effluent discharge. Air pollution control system is the integral part of GTG, and separate record of the energy consumption provided for Effluent treatment plant and reservoir water system.
3.	The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec.21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.	Having a valid CFO APPCB/VSP/RY/10097/CFO/HO/2015-3548,DT: 19.08.2015, Valid up to 31/08/2017 and subsequently renewed through auto renewal up to 31.08.2020
4.	Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27 (2) of water (Prevention and Control of Pollution) Act.1974 and Under Sec.21 (4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.	Accepted and noted.
5.	The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the inspecting officers of different departments.	Complied.
6.	Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.	Not applicable.
7.	Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The industry shall maintain a good housekeeping. All pipe valves, sewers; drains shall be leak proff.Dyke walls shall constructed around storage of chemicals.	Chemical area (DM Plant) floor washings are connected to the Effluent treatment plant only. Provided leak proof effluent discharge system. Industry is maintaining good housekeeping in and around the plant premises.
8.	Rain Water Harvesting(RWH) structure (s) Shall be established on the plant site. The proponent shall ensure that not enter the Rain Water harvesting structure.	GVPGL and GREL are located in the same complex. Existing Common rain water harvesting system connected to the total complex.
9.	The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.	Noted and accepted.
10.	This order is valid for period of 5 years from the date of issue.	Noted and accepted.

**SCHEDULE-B**

1. The source of water is River Godavari and the maximum permitted water consumption after expansion is 36236 KLD.

Sl. No.	Purpose	Existing (KLD)	Proposed (KLD)	Total after expansion (KLD)
a)	DM Plant Regeneration and back wash	115	136	251
b)	HRSG Boiler feed	269	768	1037
c)	Cooling Makeup	14000	20736	34736
d)	Domestic	16	10	26
e)	Gardening	186	Nil	186
	<b>Total</b>	<b>14586</b>	<b>21650</b>	<b>36236</b>

Expansion project Name changed From GMR Vemagiri Power Generation Limited to GMR Rajahmundry Energy Limited. Granted water consumption for GMR Rajahmundry Energy Limited is 21650 KLD.

2. The maximum Waste Water Generation (KLD) shall not exceed the following.

Sl. No.	Purpose	Existing (KLD)	Proposed (KLD)	Total after expansion (KLD)
a)	DM Plant Regeneration & Back wash	115	136	251
b)	HRSG Boiler blow down	244	288	532
c)	Cooling tower blow down	2084	3840	5904
d)	Domestic and Floor washing	11	7	18
	<b>Total</b>	<b>2434</b>	<b>4271</b>	<b>6705</b>

Complied

3. The Effluent Treatment Plant (ETP) & Sewage treatment plant (STP) shall be constructed and commissioned along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution.

Existing GVPGL STP is in operation. GVPGL and GREL are located in the same complex. Common effluent treatment system shall be utilized for both GMR Units.

4. The effluents shall be treated to the on land for irrigation/surface water standards as applicable as stipulated under Environment(Protection)Rules,1986,notified and published by Ministry of Environment and Forests,Governemnt of India as specified in Schedule VI vide G.S.R.422(E),dt.19.05.1993 and its amendments thereof, and additional standards/conditions stipulated by APPCB.

Noted and accepted.

5. Industry shall adopt closed cycle cooling system to conserve the water required for cooling purposes.

Provided closed cycle cooling system and induced draft cooling system.

6. The industry shall take following mitigation measures to control fugitive emissions during construction and operational state. Vehicles shall be managed to avoid traffic congestions and shall provide parking facilities. Automated mechanical water sprinkling shall be provided on roads and at dusty construction material storage areas, for suppression of dust. Mechanized handling equipment shall be used for loading & unloading operations. All the vehicles involved in transportation shall be covered with tarpaulin. Vehicles shall comply with emission standards shall have valid PUC certification. Procurement of machinery/construction equipment in accordance to the specifications confirming to source noise levels of 85 dB (A).

Being complied with.

7.	The industry shall provide necessary storm water drains to avoid flooding of surrounding lands during heavy rains.	Industry provided with separate storm water drain system.																								
8.	Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below. a) Industrial cooling, boiler feed. b) Domestic purposes. c) Processing, whereby water gets polluted and pollutants are easily bio-degradable. d) Processing, whereby water gets polluted and pollutants are not easily bio-degradable.	Complied																								
9.	The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution. <table border="1" data-bbox="268 745 874 958"> <thead> <tr> <th>S. No</th> <th>Details of Stack</th> <th>Stack 1 &amp; 2</th> <th>Stack 3 &amp; 4</th> </tr> </thead> <tbody> <tr> <td>a)</td> <td>Attached to</td> <td>Boiler ( 2 Nos.)</td> <td>DG Set ( 2 Nos.)</td> </tr> <tr> <td>b)</td> <td>Capacity</td> <td>2 X 377 TPH HRSG boiler</td> <td>2 x 1250 KVA</td> </tr> <tr> <td>c)</td> <td>Fuel form</td> <td>Natural gas</td> <td>Deisef</td> </tr> <tr> <td>d)</td> <td>Stack height :</td> <td>2 X70 Mtrs.</td> <td>2 X 13 m</td> </tr> <tr> <td>e)</td> <td>Control equipment</td> <td>Acoustic Enclosures to each boiler</td> <td>Silencer</td> </tr> </tbody> </table>	S. No	Details of Stack	Stack 1 & 2	Stack 3 & 4	a)	Attached to	Boiler ( 2 Nos.)	DG Set ( 2 Nos.)	b)	Capacity	2 X 377 TPH HRSG boiler	2 x 1250 KVA	c)	Fuel form	Natural gas	Deisef	d)	Stack height :	2 X70 Mtrs.	2 X 13 m	e)	Control equipment	Acoustic Enclosures to each boiler	Silencer	Complied
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e)	Control equipment	Acoustic Enclosures to each boiler	Silencer																							
10.	The industry shall provide dry low NOx combustion technology burners and it shall be ensured that NOx emission from individual stack shall be limited to 50 ppm.	Plant designed with latest technology of DLN 2+ Burner system in Gas Turbine for controlling NOx emissions.																								
11.	Continuous online monitoring equipments shall be provided to the two stacks and the exit velocity of flue gases shall not be less than 25 m/s.	Complied																								
12.	The industry shall install and commission continuous Ambient air monitoring stations(AAQM) within the plant as per the specifications of CPCB for online monitoring of SO2,NOx,PM2.5,PM10 At any stage these levels are found to exceed the prescribed limits, necessary control measures shall be taken immediately.	Industry installed common AAQ Stations for GREL and GVPGL. Monitoring is being going on. Common Continues Ambient Air Quality monitoring station installation done for GVPGL & GREL.																								
13.	The location of the monitoring stations and frequency of monitoring shall be decided in consultation of the Board. Periodic reports shall be submitted to the concerned Regional Officer.	Ambient monitoring stations locations fixed in consultation with APPCB, Regional officer and reports being submitted regularly.																								
14.	A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.	Sampling- system provided as per the guide lines.																								
15.	The generator shall be installed in a closed area with silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75dB(A) during day time and 70 dB(A) during night time.	Acoustic Enclosures provided for Gas turbine generators and other high noise generating equipments. In addition to these enclosures Ear protection devices provided for Workers exposed to high noise areas and their usage ensured.																								

16.	The proponent shall comply with the following:			Accepted and noted.	
	Sl. No	Solid Waste generated from	After expansion Quantity		Method of Disposal
	1)	Waste Lubricating Oil	4 KLPA		Disposed to authorized oil re-processors.
	2)	Oil Filters	24 Nos./ annum		Return to the supplier on buy back system/ authorized agencies
	3)	Used lead acid batteries	100 Nos. per annum	Return to the supplier on buy back system/	
17.	Fire detection and firefighting facilities with adequate water storage facility shall be provided in fire prone area in consultation with Directorate of Firefighting.			Complied.	
18.	Onsite & offsite Disaster Management plan shall be prepared to meet any eventually in case of any accident. Mock drills shall be conducted at least twice a year and modifications required if any shall be incorporated in Disaster Management Plan.			Onsite Emergency preparedness plan prepared and mock drills are being conducted regularly.	
19.	The following rules and regulations notified by the MOE&F, GOI shall be implemented. a) Hazardous waste (Management, Handling and Transboundary Movement), Rules, 2008. b) Manufacture, Storage and import of Hazardous Chemicals Rules 1989.			Noted and accepted.	
20.	Green belt consisting of 3 tiers of plantations around the plant of 150m width and density not less than 2500 saplings per ha. shall be developed with area not less than 33% of total area. Existing Green belt shall not be distributed in the proposed expansion/construction activity.			Complied.	
21.	The recommendations/commitments made during the Public Hearing held on 4.2.2009 at Main gate of industry, Vemagiri (V), Kadiyam (M), East Godavari District shall explicitly be followed from pollution control point of view.			Noted and accepted.	
22.	The industry shall comply with all the conditions stipulated in the Environmental Clearance issued vide order dt.28.1.2010 issued by MOE&F, GOI.			Noted and accepted	

**Compliance Status of Consent Order No. APPCB/VSP/RJY/10097/CFO/HO/2020-dated 04.09.2020 and renewed up to 31.08.2021**

**SCHEDULE - A**

	<b>Conditions</b>	<b>Status</b>
1.	Any up-set condition in any plant/activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the collector and District magistrate and take immediate action to bring down the discharge / emission below the limits	Noted and accepted.
2.	a) The industry shall carryout analysis of waste water discharges or emissions through chimneys, for the parameters mentioned in this order on quarterly basis and submit the board	Effluent Treatment Plant is common for both GREL and GVPGL. Analysis being carried out at regular intervals and reports submitting to the board on monthly basis
3.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 shall be followed as applicable.	Noted and accepted.
4.	The industry should put up two sign boards (6 X 4 ft each) at public visible places at the main gate indicating the products, effluent discharge standards, air emission standards, hazardous waste quantities and validity of CFO and exhibit the CFO order at a prominent place in the factory premises.	At Main, gate 2 boards installed and being updated regularly.
5.	Notwithstanding anything contained in the consent order, the board hereby reserves the right and powers to review / revoke any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the board	Noted and accepted.
6.	The industry shall ensure that there shall not be any change in the process technology, source & composition or raw materials and scope of working without prior approval from the board	Noted and accepted.
7.	The applicant shall submit Environment Statement in Form-V before 30th September ever year as per rule no 14 of E(P) rules,1986 & amendments thereof.	Complied.
8.	The applicant shall make applications through online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board. The industry should immediately submit the revised application for consent to this board in the event of any change in the raw material used, processes employed, quantity of trade effluents and quantity of emissions. Any change in the management shall be informed to the board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior	Noted and accepted.

	permission of the state pollution control board	
9.	Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.	Noted and accepted.
10.	The industry shall be liable to pay Environmental compensation / Other environmental taxes, if any environmental damage caused to the surroundings as fixed by the Collector and District Magistrate or any other competent authority as per the rule in vogue.	Noted and accepted.
11.	The industry may explore the possibility of tapping the solar energy for their energy requirements.	Noted and accepted.

#### SCHEDULE - B

1.	The industry shall report to RO, Kakinada in advance of restarting of operations of the power plant and RO, Kakinada shall verify the compliance	Noted and accepted.
2.	The industry shall provide separate energy meters to ETP and Air pollution control equipment (APC) before starting the operations.	Noted and accepted.
3.	The industry shall submit the condition wise compliance 6 monthly reports	Complied
4.	The effluent discharged shall not contain constituents in excess of the tolerance limits mentioned below.  Outlet Parameter Limiting Standards 1,2,3 & 4 pH - 6.5 to 8.5 Suspended solids 100 mg/l Oil and grease 20 mg/l Total residual chlorine 1.0 mg/l Dissolved Phosphates 5.0 mg/l Copper 1.0 mg/l Iron 1.0 mg/l Zinc 1.0 mg/l Chromium(Total) 0.2 mg/l BOD 30 mg/l COD 250 mg/l Temperature shall not exceed 5 deg C above the receiving water temperature.	Being complied with
5.	The water consumption shall not exceed the quantities mentioned below: S.No. Purpose Total 1. DM Plant regeneration and Back wash 136 KLD 2. Cooling Makeup 20736 KLD 3. HRSG Boiler feed 768 KLD 4. Domestic 10 KLD Total 21650 KLD. The industry shall maintain separate meters with necessary pipe-line for assessing the quantity of water used for each purpose.	Being complied with. Presently plant not in operation.
6.	The industry shall submit the ETP performance reports every month to the EE, RO, Kakinada.	Being Complied with.
7.	The Industry shall maintain closed cycle cooling system to conserve the water required for cooling purposes.	Provided closed cooling system to conserve the water required for cooling purpose.
8.	The industry shall maintain storm water drains to avoid	Industry has provided separate



	flooding of surrounding lands during heavy rains.	storm water drain system.
9.	The emissions shall not contain constituents in excess of the prescribed limits mentioned below. NOx =75 ppm	Complied
10.	The industry shall comply with ambient air quality standards of PM10 (Particulate matter size <10µm) - 100 µg/m3; PM2.5 (Particulate matter size <2.5µm) - 60 µg/m3; SO2 - 80 µg/m3; NOx - 80 µg/m3. Out side the factory premises at the periphery of the industry. Standards of other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, Dated:18/11/2009. Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A) Night time (10 PM to 6 AM) - 70 dB (A)	Being Complied with. Presently plant not in operation.
11	The industry shall comply with the MoEF & CC regarding water consumption and emission standards	Complied.
12.	The Industry shall comply with emission limits for DG Sets of capacity up to 800KW as per the notification G.S.R.520(E), Dated:01/07/2003 under the Environment (Protection) Amendment Rules,2003 and G.S.R.448(E), Dated:12/07/2004 under the Environment(Protection) second amendment rules,2004. In case of DG Sets of capacity more than 800 KW Shall comply with emission limits as per the notification G.S.R.489(E) ,Dated:09/07/2002 at serial no. 96, under the Environment(Protection) Act,1986.	Noted and Accepted
13.	The industry shall not use odour causing substances as Mercaptan or cause odour nuisance in the surroundings	Noted and accepted. Industry is not using such type of substances
<b>General</b>		
14.	The industry shall not manufacture new products & shall not exceed the consented quantity mentioned in this order.	Noted and accepted.
15.	The industry shall not manufacture any product other than those mentioned in this order.	Noted and accepted.
16.	The industry shall maintain dry low NOx combustion technology burners and it shall be ensured that NOx emission from individual stack shall be limited to 50 ppm.	Gas turbine is provided with Dry Low NOx Combustion system to control NOx.
17.	The industry shall calibrate the continuous online stack monitoring system every 3 months to ensure that values are correct and submit the reports to RO Kakinada.	Noted and accepted.
18.	The Industry shall maintain continuous ambient air monitoring stations(AAQM) within the plant as per the specification of CPCB for online monitoring of SO2,NOx,PM2.5,PM10.	Ambient Air Quality station installed and being maintained.
19.	The industry shall maintain greenbelt consisting of 3 tiers of plants around the plant of 150 m width and density not less than 2500 samplings per ha shall be developed with area not less than 33% of total area.	33% Green belt developed and being maintained.
20.	The Industry shall implement the action plan for development of Energy plantation.	Energy plantation integral part of 33% plantation (green belt)
21.	The Industry shall maintain logbooks on the following. 1. Hydraulic loads of effluent generation 2. Characteristics of effluents 3. Quantity of effluents generated 4. Furnish consolidated daily records on the above periodically once in three months to the RO	Accepted and being maintained.
22.	The Industry shall comply with CPCB directions dated	Noted and Accepted

	05.02.2014 / 02.03.2015 and the guidelines issued regarding online monitoring systems issued from time to time	
23.	The industry shall not use odour causing substances as Mercaptan or cause odour nuisance in the surroundings	Noted and accepted. Industry is not using such type of substances
24.	The industry shall maintain separate power consumption records pertaining to pollution control equipment.	Noted and accepted.
25.	The industry shall take all safety measures and provide firefighting equipment in the plant	Complied
26.	The industry shall renew the PLI policy which includes Environmental relief fund (ERF) and submit copy to RO, Vishakhapatnam on yearly basis	Noted and accepted.
27.	The industry shall update the information in OCEMS-industry information data entry software for compliance reporting protocol in part-II (sections F & G) Every quarter on 1 <sup>st</sup> January, 1 <sup>st</sup> April, 1 <sup>st</sup> July and 1 <sup>st</sup> October through the software system	Noted and accepted. System kept in place and data transmission shall be available once plant resumes operation
28.	Any other directions / circulars / notices issued by CPCB MoEF & CC and APPCB shall be followed time to time.	Noted and accepted.
29.	The industry shall identify major accident hazard chemicals and list out the hazardous chemicals endangered to human health & Environment and the details shall be furnished to the factories Department and to the Regional office, APPCB time to time duly certifying the same by the industry. Further the industry shall extend training to the working personnel while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure and safety, as per the MSHC Rules, 1989.	Noted and accepted.
30	The industry shall submit the copy of the safety audit report and On-site / Off site emergency plans as applicable after being certified by the Factories department to the APPCB, regional office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC rules, 1989.	Noted and accepted
31	The industry shall carry out calibration of safety equipment's and leak detection systems at regular intervals and shall certify the same with the Factories department. The certified copy shall be submitted to the APPCB, Regional office. The industry shall install fluorescent Wind vane at the highest point in the industry premises.	Noted and accepted
32	The industry shall inventories the hazardous wastes and its quantities stored within the industry premises as per the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016 (HOWM Rules, 2016) and shall furnish the details to Regional office, APPCB on monthly basis duly certifying the by the industry.	Complied.
33	The industry shall submit the self-certification on compliance of all the conditions stipulated in the CFO & HWA order.	Complied

**SCHEDULE - C**

[See rule 5(4)]

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]**

1	The authorized person shall comply with the provisions of the Environment (protection) Act, 1986, and the rules made there under	Noted and accepted
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2.	The authorization shall be produced for inspection at the request of an officer authorized by the state pollution control board.	Noted and accepted
3.	The person authorized shall not rent, lend, sell, transfer, or otherwise transport the hazardous and other wastes except what is permitted through this authorization.	Noted and accepted
4.	Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.	Noted and accepted
5.	The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.	Noted and accepted
6.	The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and penalty".	Noted and accepted
7.	It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.	Noted and accepted
8.	An application for the renewal of an authorization shall be made as laid down under these rules	Noted and accepted
9.	Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate change or Central Pollution Control Board from time to time.	Noted and accepted
<b>Specific conditions</b>		
10.	Annual return shall be filed by June 30 <sup>th</sup> for the period ensuring 31 <sup>st</sup> March of the year	Noted and accepted
11.	The industry shall comply with the provisions of HWM rules, 2016 in terms of interstate transport Hazardous waste and manifest document prescribed under rule 18 and 19 of the HWM rules, 2016.	Noted and accepted
12.	The Industry shall not store Hazardous waste for more than 90 days as per the Hazardous Waste and other wastes (Management, Handling and Transboundary movement) Rules, 2016.	Noted and accepted
13.	The industry shall store Used/Waste oils / Oil filters in a secured way in their premises till its disposal to the manufactures / dealers on buy back basis.	Noted and accepted
14.	The Industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of any emergency during transit. The transporter should carry as Transport Emergency (TREM) card.	Noted and accepted
15.	The industry shall maintain proper records for Hazardous Wastes stated in Authorization in Form-3 i.e. quantity of incinerable waste, land disposal waste, recyclable waste etc, and file annual returns in Form-4 as per rule 20(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2016.	Noted and accepted
16.	The industry shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous waste and manifest document prescribed under Rule 18 and 19 of the HWM Rules, 2016.	Noted and accepted

The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental clearance (EC), consent for Establishment (CFE) and Consent for operation (CFO) through website i.e. <https://pcb.ap.gov.in> by 1<sup>st</sup> of January and 1<sup>st</sup> July every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through NABL accredited third party.

Half-yearly compliance reports are being submitted on time by industry. NABL certification for half-yearly compliance shall be complied once plant resumes operation.