COMPLIANCE STATUS REPORT – OCTOBER 2019 TO MARCH 2020

Ref: Environment Clearance & Amendments to Environment Clearance Letter and Consent for Operation as mentioned below:

1. Letter No: J–13011/11/90-IA-II(T) dated 3rd September, 1996
2. Letter No: J–13011/11/90-IA-II(T) dated 10th September, 1996
3. Letter No: J-13011/11/90-IA.II dated 15th November, 1996
4. Letter No: J-13011/11/90-IA.II(T) dated 20th April, 1999
5. Letter No: J-13012/92/2008.IA.II(T) dated 4th March, 2009
6. Letter No: J-13012/92/2008-IA.II(T) dated 10th June, 2010
7. F. No: 11-58/2011-IA-III dated 3rd January, 2014
8. F. No: 11-58/2011-IA-III dated 17/19th March, 2015
9. Letter No: 245/Env/CZMA/2015, dated 05th June, 2015
10. F. No: 11-58/2011-IA-III dated 01st October, 2015
11. F. No: 11-58/2011-IA-III dated 01st October, 2015 (Amendment)
12. Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020- dated :06th March,2020

Sr. No.	Condition (*Letter No: J–13011/11/90-IA-II(T) dated 3rd September, 1996)*	Status
Specific Conditions		
i)	All the conditions stipulated by Andhra Pradesh Pollution Control board vide their letter No.19/PCB/ C.Estt./RO/VSP/AEE/V111/95-4433 dated 13th November, 1995 should be strictly implemented	Noted and are being complied as applicable. A monthly environmental monitoring report is being submitted to APPCB every month.
ii)	A bi-flue stack of 275 m with continuous stack monitoring system should be installed.	A bi-flue stack of 275 m has been constructed with continuous stack monitoring system.
iii)	Electrostatic precipitator having efficiency of not less than 99.8% should be installed and it should be ensured that particulate emissions would not exceed the prescribed limit of 150 mg/Nm3.	An ESP with 99.8% efficiency has been installed to control the Particulate matter emissions below 50 mg/Nm3.
iv)	Once through cooling system should be provided and the rise in temperature should be maintained within 7 degrees centigrade of the ambient water. The proposed pipeline for sea water intake and outlet should conform to the regulations of the coastal zone notification of February, 1991. Desalination plant should be provided for meeting the water requirement of the power project and other auxiliary activities.	Water balance of the power plant enclosed as **Annexure-II** (Please check with HNPCL Engineering for Latest WBD). We have obtained the CRZ clearance from MoEF has been obtained for sea water intake//outfall system. Once through cooling system has been designed to maintain temperature differential within 7 deg centigrade over and above the ambient temperature of receiving water body and being maintained the same during operation of the Plant. Desalination plant with a capacity of 12.5 MLD has been installed to meet the sweet water requirement.
v)	Adequate space should be provided for installation of flue gas desulphurization plant	Space provision for installing FGD if required, has been provided in the plant layout in future for

Sr. No.	Condition (*Letter No: J–13011/11/90-IA-II(T) dated 3rd September, 1996)*	Status
	in future for control of sulphur dioxide.	control Sulphur dioxide, if necessary.
vi)	Acquisition of land should be restricted to 2682 acres including 890 acres for ash disposal.	The land requirement for the power project is 923 acres.
vii)	Only beneficiated coal to the tune of 16080 MT/day should be used with ash content not exceeding 34%. Fly ash generated should be collected in dry form in silos and fully utilized in a phased manner. As indicated in the Environmental Management plan, increase in the dyke height above 8 m should be undertaken through use of fly ash. For avoiding contamination of ground water, ash pond area should be suitably lined and dyked. As provided in the layout, adequate space should be earmarked for getting up of ash user plants to avoid long distance transportation to fly ash.	MoEF vide its letter mentioned in Ref:3 has modified this condition to be read as *"Only beneficiated coal to the tune of 16080 metric tonnes/day should be used with average annual ash content supplied by Mahanadi Coalfields Limited not exceeding 34+ or - 1-2%. Fly ash generated should be collected in dry form in silos and fully utilized in a phased manner. As indicated in the Environmental Management plan, increase in the dyke height above 8 m should be undertaken through use of fly ash. For avoiding contamination of ground water, ash pond area should be suitably lined and dyked. As provided in the layout, adequate space should be earmarked for getting up of ash user plants to avoid long distance transportation to fly ash."* Further vide letter mentioned in Ref:4 MoEF has accorded *"no objection to the use of fuel from alternative sources which will have the same coal quality as beneficiated coal".* • With respect to the above we confirm that: Total coal expected to be used in a day will be well within the quantity recommended. Fly ash will be fully utilized in a phased manner as mentioned in the condition. • Ash pond is being lined with HDPE to prevent contamination of ground water. Further the Ground water monitoring is being undertaken by a third party on Monthly basis as per the monitored data the levels are within permissible limits. • Pond ash and Fly ash will be utilized by the following Agencies: 1) Maha cement Ltd 2) Simhadri Constructions 3) Ramco Cements 4) Sagar cements 5) Sri chakra 6) Fly ash brick association members 7) Myhome cements 8) Cenosphere 9) Ultra tech cement 10) Nagarjuna cement
viii)	Noise level should be limited to 85 dBA and regular maintenance of equipments be undertaken. For people working in the area of generator halls and other high noise areas, ear plugs should be provided.	Noise levels are being monitored by third part at locations within the plant area and the results are within prescribed limits. Requisite personnel protective equipment has already been provided to people working in high noise areas.

Sr. No.	Condition (*Letter No: J–13011/11/90-IA-II(T) dated 3rd September, 1996)*	Status
ix)	For controlling fugitive dust, regular sprinkling of water in coal handling and other vulnerable areas of the plant should be ensured.	Dust Suppression system installed and regular sprinkling of water on coal in stock yard and conveyors is being ensured.
x)	Afforestation plan should be formulated in consultation with the local DFO and implemented by creating a greenbelt of 500 m along the sea side from High Tide Line. A strip of greenbelt of 150-200 m should also be created along the ash pond area and about 100 m in available spaces within the colony along the road etc. A norm of 1500-2000 trees per ha should be followed and aftercare and monitoring should also be ensured.	Out of 923 acres, the construction activities for the power project including ash pond is restricted to 533 acres. Presently green belt is being developed in and around the power project area and an area of 249.14 acres has already been developed. Further development of Green belt continues.
xi)	Continuous monitoring of ground water should be undertaken by establishing good network of observation wells in consultation with the Central ground water board. Results and data collected should be analysed to ascertain the status of water quality and findings should be submitted for evaluation.	Continuous ground water monitoring is being carried out at six locations on Monthly basis and the monthly data is being submitted to APPCB. As per the results the limits are within the prescribed norms. The same has been compiled and is enclosed in **Chapter-3, Section-3.5.**
xii)	All effluents generated in various plant activities should be collected in the Central Effluent Treatment Plant and treated to ensure adherence to specified standards of discharge. The concept of zero discharge should be adopted to a maximum possible extent.	As per specification, all the effluents generated are treated in the Effluent Treatment Plant (ETP). The outflow is being monitored by continuous monitoring system, and then it is sent to sea through outfall The concept of zero discharge has been adopted to the maximum possible extent by adopting the following: .n 1. Recirculation of ash water in ash handling system. 2. Recirculation of filter backwash water into the system. 3. DM Plant effluent is sent to the ash slurry sump and then recycled back. Plant clarifier sludge is put into ash slurry pump house for disposal in ash pond, which is recycled.
	Keeping in view the fact that 2x500 MW thermal power plant by M/s. National Thermal Power Corporation limited proposed in the vicinity of 1040 MW thermal power project, common facilities for coal transportation, laying of rail lines etc. should be worked out with mutual consultation to avoid duplication of facilities and acquisition of additional land.	Noted
xiv)	A financial provision of Rs. 250 crores should be provided for implementation of environmental mitigative measures with adequate scope for its enhancement in future. These funds should not be diverted for any other activities and separate account	Found Noted

Sr. No.	Condition (*Letter No: J–13011/11/90-IA-II(T) dated 3rd September, 1996)*	Status
	should be maintained.	
xv)	Regular monitoring for SPM, SO_2 and NOx around the power plant may be carried out and records maintained. The data also collected should be properly analysed and submitted to the Ministry every six months.	Monitoring is being carried out at eight ambient air quality monitoring stations within the 10 km radius study area from the existing power plant complex, with two in the predominantly downward wind direction. Data on ambient air quality is being submitted to APPCB on monthly basis and also to the regional office of MOEF. As per the AAQ data, the results are within limits. The same has been compiled and is enclosed in **Chapter-3, Section-3.2.**
xvi)	Full cooperation should be extended to the Scientists/officers from the Regional Office of the Ministry at Bangalore and also to the State Pollution Control Board who would be monitoring the compliance of environmental status. Complete set of impact assessment report and the Management Plans should be forwarded to the Regional Office for their use during monitoring.	Noted.
xvii)	Monitoring committee should be constituted for reviewing the compliance to various safeguard measures by involving recognized local NGOs, Pollution Control Board experts etc.	An Environmental Monitoring Committee is in place. The Committee has already met once and suggested some improvements, which are being implemented.
3	The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry	Noted
4	For any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the conditions imposed and to add additional environmental protection measures required, if any.	Noted
5	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, the public liability Insurance Act, 1991, the Impact Assessment Notification of January, 1994 and its amendments.	Noted

Ref Letter No J-13012/ 92/2008. IA.II (T) dated 4th March, 2009		
S.No.	**Conditions**	**Compliance status**
6	Map indicating CRZ area duly certified by the approved agency and authenticated by the state coastal zone management authority may be submitted on Top priority.	Map has already been submitted to MOEF,
7	Compliance status w.r.to stipulated EC conditions should be uploaded in the company web site and updated twice in a year and the same will also be sent by e-mail to the MOEF regional office located at Bangalore.	Six monthly compliance reports are being regularly uploaded on the company web site. The link is as below. http://www.hindujanationalpower.com/images/compliance-status October 2019-March 2020 -website-version.pdf
8	The ambient levels of criteria pollutants (SO2, NOX & SPM) should be uploaded and displaced on your website and also at a convenient place in the plant premises periodically.	Display is kept at the entrance of power project.

Sr. No	Condition (Letter No: 11/58/2011 IA.III dated 3rd January, 2014)	Compliance Status
SPECIFIC CONDITIONS		
(i)	"Consent for Establishments" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	"Consent for Establishment" was issued by state pollution control board vide their order no 19/PCB/C.ESTI/RO/VSPI AEE- VIII/95 -4433 signed dated 13/11/1995 and complied with.
(ii)	Shall maintain the existing vegetation cover in the area between HTL and 500m line which is approximately 180 acres, belonging to government, located adjacent to the project area, in consultation with the State Government and there shall be no industrial development with in this area as committed.	Noted. There is already plantation exist in part of this area. Additional plantation in this area and in the land owned by HNPCL is in progress.
(iii)	The railway line has been shifted from mud flat area and as per the modified line only 160m is with in mud flat area as against the original plan on 1500m. Railway line in CRZ area shall be on stilt.	Noted. Correction in the designing has been done for implementation and as per revised proposal length of Railway line in CRZ3 area is 0.375 Route Km and Railway line does not pass through CRZ1 area or Inter tidal waters of mud flat. The proposal has been approved by MOEF&CC

Sr. No	Condition (Letter No: 11/58/2011 IA.III dated 3rd January, 2014)	Compliance Status
		vide letter No.F.No.11-58/2011-IA-III dated:1st October, 2015.
(iv)	There shall be no construction in mudflat except part of railway line on stilt as committed.	Noted. Shall be complied with.
(v)	Adequate spare diffuser arms for operation and maintenance of the marine outfall systems shall be Provided.	Spare diffusers arm shall be kept for O&M.
(vi)	Pipelines shall be laid with more care to minimize the impact to sand dunes	Noted.
(vii)	The double story switchgear, electro chlorination building and two numbers of storage tanks Proposed between 200 and 500 m from HTL shall be located beyond 500 m from HTL as committed.	Complied. The electro chlorination building and the storage tanks have been constructed beyond 500 m from the HTL with in the plant premises.
(viii)	Periodic monitoring of water quality in terms of temperature chlorine content if applicable, salinity etc at the outfall locations shall be carried out. If the impact of temperature and salinity is found significant in future, necessary remediation measures shall be taken by extending the outfall as well as the intake lines and/or providing augmentation in inland cooling facilities.	Periodic monitoring of water quality is going on at outfall location. Agreed.
(ix)	Installation of trash bar/screens shall be put in place at the intake well to avoid fish entrapment	Complied. Trash rack has been installed.
(x)	All the conditions laid by the SCZMA shall be strictly adhered to.	Agreed
(xi)	Construction activity shall be carried out strictly as per the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Agreed
(xii)	The project shall be executed in such a manner that there shall not be any Disturbance to the fishing activity.	Noted. There is no disturbance to fishing activity
	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project	Shall be ensured
(xiii)	The project proponents shall set up separate Environment management cell for effective implementation of the stipulated environmental Safeguard under the supervision of a Senior executive.	The Environment management is done by senior management personnel .One officer has already been appointed to monitor the implementation on continuous basis.
	The funds earmarked for environment management shall be included in the budget and this shall not be diverted for any other purposes.	Noted.
General Conditions		
Sr.No	**Condition (Letter F.No: 11-58/2011-IA-III dated 3rd January, 2014)**	**Compliance Status**
(i)	Appropriate measures must be take while undertaking	Noted.

Sr. No	Condition (Letter No: 11/58/2011 IA.III dated 3rd January, 2014)	Compliance Status
	digging activities to avoid any likely degradation of water quality.	
(ii)	Full supports shall be extended to the officer of this Ministry/Regional office at Bengaluru by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environment protection activities.	Noted.
(iii)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bengaluru regarding the implementation of the stipulated Conditions.	Noted and being complied with.
(iv)	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Agreed.
(v)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted
(vi)	In the event of a change in project profile or change in the implementation agency, fresh references shall be made to the Ministry of Environment and Forests.	Noted
(vii)	The project proponent shall inform the Regional office as well as the Ministry, the date-of financial closure and final approval of the project by the concerned Authorities and the date of start of land Development work.	Complied.
(viii)	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion /representation has been Made received while processing the Proposal.	Agreed.
(ix)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/ Tehsildar's office for 30 days.	NA

Sr. No.	Condition (Letter No: F.NO. 11-58/ 2011-IA.III dated 17/19th March 2015)	Compliance Status
(i)	Railway line, in the CRZ, shall be on embankment with clear openings or on stilt so as to ensure free flow of water.	Noted. Being complied with.
(ii)	PP shall get an expert opinion on the design of alignment on CRZ area on embankment with clear openings or on stilt so as to ensure free flow of water and submit to Ministry prior to commencement of Railway line work in CRZ area.	Noted
(iii)	The water bodies present adjacent to the proposed to the Railway alignment shall not be disturbed.	Noted. Shall be adhered to.

Sr. No.	Condition (Letter No: F.NO. 11-58/ 2011-IA-III dated 01th October 2015) (Amendment in CRZ Clearance-reg)	Compliance Status
(i)	All the conditions/recommendation stipulated by Andhra Pradesh Coastal zone Management Authority (APCZMA) vide letter No.245/Env/CZMA/2015 dated 05.06.2015 shall strictly be complied with	Noted. Details are furnished below
(ii)	All the condition stipulated in the clearance vide letter No.11-58/2011-IA-III dated 3rd January, 2014 and subsequent amendment dated 17th March, 2015 shall remain unchanged.	Noted and complied as detailed above

Sr. No.	Condition (Letter No: F.NO. 11-58/ 2011-IA-III dated 01th October 2015) (Interim arrangement for the sea water intake and outfall system-reg)	Compliance Status
(i)	All the conditions/recommendation stipulated by Andhra Pradesh Coastal zone Management Authority (APCZMA) vide letter No.245/Env/CZMA/2015 dated 06.07.2015 shall strictly be complied with	Noted. Details are furnished below
(ii)	All the condition stipulated in the clearance granted by this Ministry vide letter No.11-58/2011-IA-III dated 3rd January, 2014 and subsequent amendment dated 17th March, 2015 shall remain unchanged.	Noted and being complied with
(iii)	The PP shall use multi diffuser in the outfall. As suggested by NCSCM, the thermal water shall be release at 10 m depth from the 8 diffuser.	Noted and being complied with
(iv)	A monitoring system shall be deployed by the PP to assess the movement of thermal plume in and around the outfall coolant water jetty due to the occurrence of thermal plume oscillation in south-north direction during monsoon and also to monitor the impact of hot water discharge in to the sea water flora and fauna. The PP shall comply with at the direction of the APCZMA and take necessary corrective measures wherever required.	Noted and being complied with
(v)	The PP shall take all necessary clearance from the concerned authorities viz-a-viz from the concerned State Pollution Control Board	Noted and being complied with
(vi)	Care should also be take to ascertain minimal impact on the shore line change due to construction of coastal structures. For this purpose, shoreline change shall be monitored using the satellite imaginary and by beach profile studies at regular intravels.	Noted and being complied with

Sr. No.	Condition (Letter No: 245/Env/CZMA/2015, dated 05th June 2015)	Compliance Status
1	The proposed pipeline shall conform to the norms prescribed in the CRZ Notification issued by the Ministry of Environment and Forests, Government of India S. 0. No.19(E), dated 06-01-2011	Complied
2	No activity on the ground shall be undertaken without	Noted

Sr. No.	Condition (Letter No: 245/Env/CZMA/2015, dated 05th June 2015)	Compliance Status
	obtaining Environmental Clearance from the Ministry of Environment and Forests, Government of India as per S. 0. No.19(E), dated 06-01-2011 and the amendments issued thereof	
3	There shall be minimum disturbance to the sand dunes and other vegetation	Noted
4	On account of inversion process occurring along the Vizag coast, wherein the temperature profile gets reversed in such a way that bottom temperature tend to become higher than surface temperature on seasonal basis. Hence, it is suggested that a constant monitoring system shall be established to monitor the physical, chemical and biological activity near the outfall point and its surroundings. The industry shall take necessary steps to attain the safe diffusion of used ballast sea water discharged through outfall system	Regularly monitoring at discharge point is being carried out. All necessary steps has taken for safe discharge of ballast sea water.
5	Marker buoy and light indicators shall be established close to the intake and outfall points to avoid fishing net damage	Will be installed
6	Residual chlorine in the return water shall be kept at a very low concentration at discharge point. If possible, de-chlorination by hypo may be taken up before disposal of warm water into the sea	Noted
7	Additional diffusers shall be installed to enhance the dispersion of the hot water to facilitate the dissipation of temperature	Noted. Additional diffusers shall be installed to enhance the dispersion of the hot water
8	Regular monitoring of water quality at bottom and surface shall be carried out for pH, TSM, Salinity, DO, BOD, dissolved phosphate, nitrate, ammonia and PHC	Water quality monitoring in sea water carried out regularly
9	Inter-tidal region shall be analyzed for texture, phosphorous, chromium, nickel, copper, cadmium, lead, mercury and PHC	Noted and being complied with
10	Biological characteristics shall be assessed based on primary productivity, phytopigments, phytoplankton populations and their generic diversity, biomass, population and community diversity of benthos, fisheries composition and density as well as species diversity	Noted and being complied with
11	Regular (seasonal) monitoring of temperature at the outfall to take necessary mitigation measures. Online monitoring of salinity and temperature may be implemented	Is being complied
12	Shoreline evolution to be predicted by using Mathematical Model preferably `LITPACK of MIKE.21' due to the impact that may be caused by the piers constructed to carry intake and outfall pipelines	Noted and being complied with
13	Shoreline monitoring shall be carried out regularly by a reputed organization having requisite experience, in order to take up suitable preventive measures.	Noted and being complied with
14	The geographical position of the present HTL, LTL and slope of the beaches shall be maintained i.e. any erosion that may occur need to be prevented. The	Noted and will be complied

Sr. No.	Condition (Letter No: 245/Env/CZMA/2015, dated 05th June 2015)	Compliance Status
	beach front shall be restored to the normal condition by adopting suitable engineering and vegetative measures	
15	The Ash generated shall be utilized as per the norms stipulated in Fly Ash Notification dated 14-09-1999	Noted and being complied with
16	Environmental audit shall be taken up periodically by the independent agency and submit the report to the Regulatory Agencies	Noted and will be complied

Sr. No.	Condition (Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II	Compliance Status
	SCHEDULE-A	
1	Any up-set condition in any industrial 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 shall be complied when such condition arises.
2	The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.	Noted and being complied with
3	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable	Public liability insurance is obtained
4	The industry should put up two sign boards (6x4 ft. each) at publicly 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	Noted and being complied with
5	Notwithstanding anything contained in this 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
6	The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E(P) Rules, 1986 & amendments thereof	Noted and being complied with
7	The applicant should 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 & 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 permission of the State Pollution Control Board.	Noted and will be complied

Sr. No.	Condition (Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II	Compliance Status
8	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 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 being complied with
9	The industry may explore the possibility of tapping the solar energy for their energy requirement.	Will be reviewed.
	SCHEDULE – B	
	WATER POLLUTION	
1	The effluent discharged shall not contain constituents in excess of the tolerance limits mentioned below	Noted and the effluent is Within the prescribed limits

Outlet	Parameter	Limiting Standards
1	pH	6.50 — 8.50
	Temperature-not more than 7°C higher than intake water as per MoEF Communication dated 20.04.1999.	
	Total Suspended Solids(at 103—105° C)	100 mg/I
	Oil and Grease	20 mg/I
	Free chlorine	0.5 mg/I
	Phosphate as PO4	20 mg/I
	Chromium (Total)	0.2 mg/I
	Copper (Total)	1mg/I
	Iron	1 mg/I
	Zinc	1 mg/I
2	pH	6.50 — 8.50
	Oil and Grease	10 mg/l
	BOD (3 days at 27 °C)	30 mg/l
	Total Suspended Solids	<100 mg/I
	Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml	<1000MPN /100 ml

<table>
<tr><th>Sr. No.</th><th>Condition
(Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II</th><th>Compliance Status</th></tr>
<tr><td>2</td><td>The industry water consumption shall not exceed the quantities mentioned below:

<table>
<tr><th>S.No</th><th>Purpose</th><th>Quantity (m3/hr)</th></tr>
<tr><td></td><td>Condenser & Auxiliary Cooling Water System</td><td>175580</td></tr>
<tr><td></td><td>Ash water sump</td><td>2600</td></tr>
<tr><td></td><td>Dust Suppression system</td><td>220</td></tr>
<tr><td></td><td>For Desalination Plant feed</td><td>1600</td></tr>
<tr><td></td><td>Total</td><td>180000</td></tr>
<tr><td colspan="3">Details of specific consumption:</td></tr>
<tr><td>4 A</td><td colspan="2">From Desalination Plant to Reservoir</td></tr>
<tr><td>4 A 1</td><td>From reservoir to UF/RO System</td><td>503</td></tr>
<tr><td></td><td>RO Plant to Boiler Make Up, CPU Regeneration & other utilities</td><td>110</td></tr>
<tr><td></td><td>Blow down Quenching</td><td>90</td></tr>
<tr><td></td><td>Domestic Water</td><td>30</td></tr>
<tr><td></td><td>HVAC & Ventilation</td><td>80</td></tr>
<tr><td></td><td>Seal Water</td><td>75</td></tr>
<tr><td></td><td>Service water</td><td>52</td></tr>
<tr><td></td><td>APH & ESP Wash (As and when required)</td><td>06</td></tr>
<tr><td></td><td>RO Plant to Clarifier</td><td>---</td></tr>
<tr><td></td><td>UF , RO & EDI reject</td><td>70</td></tr>
<tr><td>4 A B</td><td>Water remain in recovery</td><td>11</td></tr>
</table>
Separate meters with necessary pipe-line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above for Cess assessment purpose.</td><td>Noted and being complied with</td></tr>
<tr><td>3</td><td>The industry shall maintain water meters for recording consumption of Sea water and maintain proper records for daily water consumption and shall submit monthly reports to the RO, Visakhapatnam.</td><td>Noted and being complied with</td></tr>
<tr><td>4</td><td>The industry shall install water meters at service water, domestic, ash water sumps by 31.03.2020.</td><td>Noted and will be complied.</td></tr>
<tr><td>5</td><td>The industry shall maintain flow meters preferably Electro Magnetic flow meters with totalizers for water and effluent quantity measurements for different streams of effluents and different categories of water usage stipulated in this order. The industry shall recycle the ash pond and D.M. Plant effluent</td><td>Noted and being complied with</td></tr>
<tr><td>6</td><td>The run-off water from coal yard shall be treated to on land for irrigation standards before final disposal.</td><td>Noted</td></tr>
<tr><td>7</td><td>The industry shall discharge the cooling water into sea through a suitable submarine pipeline</td><td>Noted</td></tr>
<tr><td>8</td><td>The industry shall monitor all ground water peizo wells and submit report to RO Visakhapatnam every three months indicating trends</td><td>Noted and being complied</td></tr>
<tr><td>9</td><td>The industry shall maintain proper arrangements for collection of seepage from ash pond and pumped back into the ash water system, so as to avoid ground water pollution in the surrounding area.</td><td>Noted</td></tr>
<tr><td>10</td><td>The industry shall treat the domestic effluents by adopting suitable technologies such as oxidation ponds aerated lagoons and discharge the treated effluents on the land for the irrigation/gardening.</td><td>Noted and being complied</td></tr>
<tr><td>11</td><td>The cooling water used in the once through system if treated with biocide will affect the Biota of the sea and fishing also, in the proximity of the discharge point. It should be controlled properly designed outfall into the sea.</td><td>Noted</td></tr>
<tr><td></td><td>AIR POLLUTION</td><td></td></tr>
</table>

Sr. No.	Condition (Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II	Compliance Status
1	The emissions shall not contain constituents in excess of the prescribed limits mentioned below. **Chimney No.** / **Parameter** / **Emission Standards** 1 / Particulate matter / 50 mg/Nm3 / SO2 / 200 mg/Nm3 / NOx / 300 mg/Nm3 / Mercury / 0.03 mg/Nm3	Noted.
2	The industry shall comply with emission limits for DG sets of capacity upto 800 KW 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 will be complied. The DG sets are standby and used only in the absence of grid power supply.
3	The industry shall comply with ambient air quality standards of PM10 (Particulate Matter size less than 10µm) - 100 µg/m3; PM2.5 (Particulate Matter size less than 2.5 µm)60 µg/m3; SO2 - 80 µg/m3; NO2 - 80 µg/m3 outside the factory premises at the periphery of the industry. Standards for 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).	Noted and being complied with The Ambient air Quality and noise parameters with in the stipulated standards and reports are being submitted regularly
4	The industry shall provide interlocking facility between APC equipment (ESP) and fuel feeding system, in such a way that the feeding of the fuel shall be stopped automatically, in case, the ESP fails/ tripping's are occurred within 3 months.	Noted
5	The industry shall rectify CAAQM station at Coal Handling plant made in working condition by 10.04.2020.	will be complied.
6	The industry shall maintain online Stack and ambient monitoring systems with connection to the Board's website	Online monitoring systems are available and Connection to board through online website.
7	The industry shall take necessary measures like Ammonia dosing to maintain ESPs attached to the Boilers so as to meet SPM standards all the time.	Noted and being complied
8	The industry maintain the data logging facility provided for storing online stack emission data properly, for retrieval as and when necessary. Industry shall submit monthly report to the RO Visakhapatnam	Noted. The data is being directly connected to APPCB website for online monitoring.
	GENERAL:	
1	The industry shall not increase the capacity beyond the permitted capacity mentioned in this order.	Noted
2	The industry shall provide temperature indicator at marine out fall for assessing the temperature between the intake water and discharge water within three months.	Noted and being complied with
3	The industry shall discharge off once through cooling effluents from Unit – 1 & 2 at a distance of 900 mts from the shoreline.	Noted and being complied with
4	The industry shall install permanent mechanical sprinklers for	Complied. Sprinklers have been

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	suppression of dust on the haul roads in between the villages and report the compliance to RO-Visakhapatnam	provided on the roads besides deploying water tankers
5	The industry shall comply with CPCB directions dated 05.02.2014 / 02.03.2015 and guidelines issued regarding online monitoring systems issued from time to time. The online monitoring system shall be calibrated periodically as per equipment suppliers manual / CPCB guidelines	AAQ and Stack Emission of online monitoring systems are connected to APPCB and CPCB web site.
6	The industry shall maintain the following records and the same shall be made available to the Board Officials during the inspection. • Daily power generation details. • Quantity of Effluents generated and disposed. • Log Books for pollution control systems. • Daily Fly ash generated and disposed.	Noted and being complied with
7	The industry shall dispose fly ash to cement / brick units and export, excess to ash pond.	Pond ash and Fly ash will be utilized by the following Agencies: 1) Maha cement Ltd 2) Simhadri Constructions 3) Ramco Cements 4) Sagar cements 5) Sri chakra 6) Fly ash brick association members 7) Myhome cements 8) Cenosphere 9) Ultra tech cement 10) Nagarjuna cement
8	The industry shall submit detailed action plan for fly ash utilization as per the Fly Ash Notification on MoEF to the Board to achieve 100% utilisation of fly ash	Complied
9	The industry shall achieve 100 % of fly ash utilization within 3 months	Noted
10	The industry shall maintain water curtain in ash ponds as the fly ash is exposing to atmosphere and causing dust emissions during wind blow.	Noted and being complied with
11	The industry shall establish a dedicated Environmental cell for continuous monitoring of plant environment to ensure compliance of CFO conditions.	The Environment management is done by a senior management personnel .One senior officer has been given the responsibility to monitor the implementation on continuous basis.
12	Thick green belt shall be maintained by the industry covering an area of 33% of total area.	Presently green belt is being developed in and around the power project area in consultation with DFO and an area of 249.14 acres has already been developed. Further development of Green belt continuous.
13	The industry shall not exceed of emissions standards at any point of time. In case the industry exceeds the standards in the CEMS data, environmental compensation will be levied.	Noted
14	The industry shall treat the cooling waste waters to the marine	Noted

Sr. No.	Condition (Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II	Compliance Status
	coastal standards and the domestic waste waters to the on land for irrigation standards stipulated under Environmental (protection) Rules, 1986 as amended upto date, notified under Environment (Protection) Act,1986 by Ministry of Environment and Forest, Govt of India.	
15	The industry shall maintain suitable control equipment facilities in the coal handling plant and dust suppression in all coal and material handling areas shall be achieved through appropriate methods.	Noted and being complied
16	The industry shall maintain duly compacted soil cover of requisite thickness as per norms for the ash ponds to avoid dust pollution and report the compliance to RO Visakhapatnam.	Noted
17	All the conditions/recommendations stipulated by A.P. Coastal Zone Management Authority vide letter No. 245/Env/CZMA/2015 dated 06.07.2015 shall be complied with.	Noted and being complied
18	All the conditions stipulated in the CRZ clearance granted by this Ministry vide letter No. 11-58/2011-IA-III dated 3rd January, 2014 and subsequent amendment dated 17th March, 2015 shall remain unchanged.	Noted and being complied
19	The PP shall use multi diffuser in the outfall. As suggested by NCSCM, the thermal water release shall be release at 10 m depth from the 8 diffuser.	Noted and being complied with
20	A monitoring system shall be deployed by the PP to assess the movement of thermal plume in and around the outfall coolant water jetty due to the occurrence of thermal plume oscillation in south-north direction during monsoon and also to monitor the impact of hot water discharge into the Sea and the flora and fauna. The PP shall comply with at the directions of APCZMA and take necessary corrective measures wherever required.	Noted and being complied with
21	The PP shall take all necessary clearance from the concerned authorities viz-a-viz from the concerned State Pollution Control Board.	Noted and being complied with
22	Care should be taken to ascertain minimal impact on the shoreline change due to construction of coastal structures. For this purpose, shoreline change shall be monitored using satellite imagery and by beach profile studies at regular intervals.	Noted and being complied with
23	The industry shall comply with the conditions stipulated in MoEF&CC,GoI amendment in CRZ Clearance Order dated 01.10.2015.	Noted and being complied with
24	The industry shall comply with the conditions stipulated in Amendment to the EC order dated 01.10.2015 regarding interim arrangement for the sea water intake and outfall system.	Noted and being complied with
	SCHEDULE – C [*see rule 6(2)]*	
	[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 being complied with
2	The authorisation shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.	Noted
3	The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.	Noted
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
5	The person authorised shall implement Emergency Response	Noted and being complied with

Sr. No.	Condition (Consent Order No:APPCB/VSP/VSP/19/HO/CFO/2020, dated 06th March 2020) for Unit – I & Unit – II	Compliance Status
	Procedure (ERP) for which this authorisation 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;	
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 being complied with
7	It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.	Noted
8	An application for the renewal of an authorization shall be made as laid down under these Rules.	Noted and being complied
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
	Specific Conditions:	
10	Annual return shall be filed by June 30th for the period ensuring 31st March of the year.	Noted and being complied
11	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 being complied
12	The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.	Noted and being complied
13	The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.	Noted and being complied
14	The industry shall transport the hazardous waste through vehicle fitted with GPS tracking system.	Noted and will be complied
15	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 an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.	Noted and being complied
16	The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation 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 and Other Wastes (Management & Transboundary Movement) Rules, 2016.	Noted and being complied