

**HALF YEARLY COMPLIANCE REPORT TO THE
CONDITIONS OF ENVIRONMENT CLEARANCE
(MODERNIZATION OF EXISTING TOWNSHIP AT ITPS)**

**ODISHA POWER GENERATION CORPORATION LIMITED
BANA HARAPALI, JHARSUGUDA, ODISHA**



SUBMITTED TO

**Member secretary,
SEIAA, Odisha,
Qtr No: - 5RF 2/1
Unit – IX
Bhubaneswar -751022**

2 X 660 MW Thermal Power Project Office: Resource Centre, Ib Thermal Power Station,
Dist.: Jharsuguda – 768234, Odisha, Ph.: 06645-222212 Web: www.opgc.co.in

Letter No. OPGC II-SEIAA-2017-0118
Date: 31.05.2017

To
The Member Secretary,
State Environment Impact Assessment Authority, Odisha,
Q.No.-5RF 2/1, Unit-IX, Bhubaneswar 751022

Reference: Your office letter no: 243/SEIAA dated 21.01.2014,
Our office letter no OPGC II-SEIAA-2014-3374

Sub: Submission of Compliance Report – Modernization of existing township along with new construction at IB Thermal Power Station.

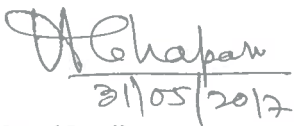
Dear Sir,

Enclosed Please find herewith the Compliance Report of Modernization of existing township along with new construction at IB Thermal Power Station of Odisha Power Generation Corporation Ltd. Po- Banharpali, District- Jharsuguda, Odisha.

This is for your kind information.

Thanking You.

Yours Faithfully,



21/05/2017

GM (Civil).

Copy to: Member Secretary, State Pollution Control Board, Odisha.
Regional Office, Jharsuguda, State Pollution control Board, Odisha

HALF YEARLY EC COMPLIANCE STATUS REPORT

Sl. No.	ENVIRONMENT CLEARANCE CONDITIONS	STATUS REPORT
1	General Conditions	Compliance Status
1.1	The applicant (project proponent) will take necessary measure for prevention control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form 1, Form 1A and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.	<p>Now the project is in Construction phase.</p> <p>Air Pollution Control Measures:</p> <ul style="list-style-type: none"> Vehicles with PUC certificate is being deployed at site Water sprinkling is being carried out on the haulage roads, material stock yard to avoid generation of dust <p>Water Pollution Control Measures:</p> <ul style="list-style-type: none"> The Sewage water generated from the construction worker's colony is being discharged to soak pit through septic tank <p>Land Pollution Control:</p> <ul style="list-style-type: none"> Adequate waste management methodology is being adopted to avoid any sort of land contamination Bio-degradable waste is being processed in OPGC's own Bio-gas generation plant for methane generation and onward used for cooking purpose. And Non-biodegradable waste is being stored in collection pits for further recycling /disposal
1.2	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of the project as per the prevailing norms of respective authorities.	It is being complied.
1.3	The applicant will submit half yearly compliance report on post environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Odisha, on 1st June and 1st December of each calendar year.	Half yearly compliance progress status report of the conditions mentioned in the Environmental Clearance is being submitted to SEIAA, Odisha.
1.4	The project proponent will provide adequate passage all around the building blocks for movement of fire tenders as per provisions of National Building Code (NBC)- 2005	<p>This scope has been included in the Engineering design.</p> <p>Adequate passage and access are being provided for the movement of fire tenders around the building blocks.</p>
1.5	The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Odisha	Noted for compliance.
1.6	The applicant will adopt the prescribed norms, and standards provided in the National Building Code of India, 2005, Specially relating to:	
1.6.a	Fire protection and life safety of the occupants of the building.	<p>Requirements for Fire protection and life safety of the occupants are incorporated in the design</p> <p>(i) For fire protection , adequate capacity water tank and terrace pump will be</p>


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		<p>provided</p> <p>(ii) Fire extinguisher and Hose reel will be provided in the required places</p> <p>(iii) OPGC has its own Fire tender and it is residing within the township. That will be used in case of any fire.</p> <p>(iv) Suitable exit arrangements (Stair case having suitable width) from the building is being provided.</p>
1.6.b	Safety of the personal during construction, operation and demolition of the buildings.	All required safety measures during construction are being adopted at site.
1.6.c	Day lightings and the natural ventilation of the buildings	<p>Incorporated in the design</p> <p>Glass windows provision have been made to facilitate day lighting. Windows and door placing in the building will help cross ventilation.</p>
1.6.d	Safety from the electrical fire, shock and lightning of the buildings.	Electrical safety provisions have been incorporated in the design.
1.6.e	Air- conditioning, heating and mechanical ventilation of the buildings.	Incorporated in the design
1.6.f	Acoustic and noise control of the buildings	Taken care in the design.
1.6.g	Maintenance and functioning with emission from generators supplying power to common space/ residential areas in case of power failure along with fuel handling / storage.	It will be complied.
1.6.h	Installation of lifts and escalators in the buildings.	Provision has been incorporated in the design.
1.6.i	Water supply, drainage and sanitation including solid waste management.	<p>Water supply and drainage arrangements have been incorporated in the design.</p> <p>Sanitation including solid waste management : Generated Sewage will be sent to OPGC'S existing STP for treatment and further reuse in green belt development/garden development/landscaping purpose.</p> <p>The Bio-waste will be either sent to OPGC'S own Bio-gas generation plant for processing and onward cooking gas generation or else will be processed through composting.</p> <p>And the non-biodegradable waste will be disposed off through the recyclers or to agency for co-processing of the same.</p>
1.6.j	Landscaping of the surrounding areas of the buildings.	Partly existing. Further improvement will be taken up.




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	SPECIAL CONDITIONS	
A	CONSTRUCTION PHASE	
1	No ground water shall be extracted for the project work at any stage of during construction phase.	No ground water is being used in the project.
2	Provision shall be made for the housing of construction labourers within the site with all the necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP , safe drinking water, medical healthcare, crèche etc. The housing may be the form of temporary structures to be removed after the completion of the project.	Housing facilities with necessary infrastructure and facilities such as fuel for cooking, Toilets, Soak pit with septic tank, Safe drinking water, Medical health care etc. are being provided for Construction worker. Further, as per requirement facilities will be enhanced.
3	A First- Aid room will be provided in the project site both during construction and operation of the project.	Full fledged hospital is available in the project site now.
4	All the top soil excavated during the construction activities should be stored separately for use in filling, horticulture / land scape development within the project site.	It is being complied.
5	Some of the existing buildings/houses/structures within the project site are proposed to be demolished. Re-use of the debris at the existing site as far as practicable is recommended with a special care for handling and disposal of asbestos waste, if any. Rest of the waste is to be disposed at landfill disposal site.	It is being complied.
6	Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and will be disposed of taking the necessary precautions for general safety and health aspects of the people only in approved site with the approval of competent authority.	The muck (i.e.; excavated soil) generated from the construction activities is being stored in an earmarked area within the project site and further used in backfilling and ground labelling work. Construction debris are stored in an identified debris yard within the project site. During handling of the materials, all precautions are being taken to mitigate the adverse impact.
7	Soil and ground water samples will be tested periodically to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Noted for compliance.
8	Construction spoils including bituminous material and other hazardous materials should not be allowed to contaminate water courses, ground water and dump sites by following safe dumping/disposal practice as per statutory rules and norms with necessary approval of Odisha State Pollution Control Board.	Excavated soil & construction debris generated from the construction activities are being stored within the project site. There is no chance of water course and ground water contamination due to this activity.

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9	The fuel for the diesel generator sets to be used during construction phase use low sulphur diesel fuel and should confirm to the Environment (Protection) Rules 1986 prescribed for air emission and noise standards.	Commercially available fuel oil will be used.
10	The diesel required for operating DG sets shall be stored in underground tanks and, if required, clearances from Chief Controller of Explosive shall be taken.	Diesel storage facility already exists at the project. The facility is licensed from CCOE.
11	Vehicles used for bringing construction material to the site should be in good condition and should have a pollution check certificate, covered and confirms to the statutory air and noise emission standards and should be operated only during non-peak hours of the day.	It is being complied.
12	Ambient noise level should confirm to residential both during day and night. Incremental pollution on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise during construction phase, so as to confirm to the stipulated standards by CPCB/OPCB	The township is within the existing premises of OPGC and AAQ and noise monitoring are being carried out as per the statutory guidelines.
13	Fly ash brick should be used as building material in the construction as per the provisions of Fly ash Notification of September, 1999 and as amended thereafter.	Fly ash bricks are being used.
14	Ready mixed concrete would be used in building construction.	It is being used.
15	Rain water harvesting and its re-use should be as per CGWB and BIS standards for these applications.	Rain water recharge pits based on CGWB guidelines have been proposed for new buildings. Recharge pits will be located all around the buildings for easy collection of roof rain water through down comer pipes
16	Water demand during construction should be optimized by adopting best practices without compromising quality. Separation of treated waste water and Fresh water should be done by the use of dual plumbing line.	Noted for compliance.
17	Fixture of showers, toilet flushing and drinking water should be of low flow type and restricted to requirements by the use of aerators, avoiding wastage of pressure reducing devices of sensor based controls.	Noted for compliance.
18	Use of glass may be maximum up to 40% of total outer wall area to reduce the energy consumptions and load air-conditioning. If necessary, high quality double glass with special reflective coating may be used in the windows.	Design has been made keeping the glass area is within 20 to 25% of outer wall area.



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19	Roof should meet the prescribed requirement as per Energy Conservation Building Code.	Noted for compliance.
20	Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code.	Opaque wall is designed to meet the requirements of energy conservation.
21	The approval of the competent authority shall be obtained for structural safety of the building due to earthquake, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning etc.	All parameters are incorporated in the design for implementation.
22	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution of the surrounding.	It is being complied.
B	OPERATION PHASE	
1	The proponent shall treat the effluents in the existing Sewage Treatment Plant of capacity 1 MLD. Treated effluents from STP shall be recycled/ reused to the maximum extent possible after scientific treatment. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated effluent (not exceeding 20% of the water during monsoon season only) shall conform to the norms and standards of Odisha State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.	Shall be complied.
2	In no case, the treated waste water shall be allowed to accumulate inside the project boundary or outside the project area creating water logging situation in the area.	Shall be complied.
3	In no case the waste water shall be allowed to pollute the surrounding area.	Shall be complied.
4	The STP sludge should not be dried off nor incinerated within the project site and should be disposed off as per the norms of SPCB, Odisha.	Shall be complied.
5	The STP must be technically sound to treat all kinds of pollutants present in the sewage and its capacity should taken into account the entire load of sewage generated by inhabitants.	Shall be complied.
6	The project proponent will ensure that under no circumstance, the environment is polluted due to non-functioning / under performance of the STP and the sewerage disposal system of the project.	Shall be complied.



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7	The Solid waste generated should be properly collected and segregated. Wet garbage should be disposed off to be composted and dry/inert solid waste should be disposed through a certified agency for safe disposal. Necessary approval/permission may be obtained from the concerned authorities. In no case it should be left in the premises untreated.	The Bio-waste will be either sent to OPGC'S own Bio-gas generation plant for processing and onward cooking gas generation or else will be processed through composting. And the non-biodegradable waste will be disposed of through the recyclers or to agency for co-processing of the same.
8	Diesel power generation sets proposed as source of back-up power for lifts elevators and common area illumination during operation phase should be enclosed type and conforms to Environment Protection (EP) rule 1986. The height of the stack of DG sets should be equal to the height needed for the capacity of all proposed sets should be equal to the height needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. Low sulphur diesel should be used. The location of the DG sets may be decided in consultation with Odisha State Pollution Control Board. Care may be taken to avoid disposal of smoke/Pollutants from DG sets in the residential area. Low sulphur diesel oil (LDO or HSD) will be used in DG sets.	Shall be complied.
9	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise level measured at the boundary of the site shall be restricted to the permissible level to comply with the prevalent regulations.	Shall be complied.
10	As substantial area included in the project site is still legally Reserved Forest, necessary permission from the competent authority (the local DFO) should be obtained for felling of trees and the forest growth whenever required.	It is being complied.
11	Since substantial forest cover exists within the project boundary i.e. Both Reserve forest and Revenue land with fresh re-growth and the forest cover has improved in density and quality, a proper plan may be prepared in consultation with the local DFO and regular forest cleaning/brush wood cutting need to be carried out to prevent occurrence of fire and maintain forest hygiene.	Noted for compliance.



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18	Traffic congestion near the entry and the exit point from the road adjoining the proposed project site must be avoided. Traffic congestion shall be avoided inside the project site. The area ear- marked for parking shall not be used for any other purpose. Alternate entry and exit must be provided to handle excess traffic and emergency situation.	To avoid traffic congestion adequate measures have been taken at site.
19	A report on Energy conservation measures confirming to energy conservation norms finalised by Bureau of Energy Efficiency should be prepared incorporating details about building materials and technology, R and U factors etc and submitted to SEIAA, Odisha in three months time before operation/habitation.	Noted for compliance.
20	Provisions of solar hot water storage/supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Odisha.	Noted for compliance.
21	Energy Conservation Measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project before commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid toxic contamination. Use of solar panels be adopted to the maximum extent possible, especially for street lights.	Noted for compliance. Timer based external lighting system will be provided.
22	The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	Building blocks are being constructed by keeping adequate distance between them.
23	The funds earmarked for the environmental protection measures shall be judiciously utilized. Under no circumstance this fund shall be diverted for the other purposes like Annual Allocation and maintenance/monitoring etc. and expenditure for this fund should be reported to the SEIAA, Odisha on regular basis.	Noted for compliance.

H. Chakraborty
31/5/2017

