



Indian Oil

इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
बॉम्बाइगाँव रिफाइनरी  
डाकघर : धालीगाँव - 783 385  
जिला : चिरांग (असम)  
Indian Oil Corporation Limited  
Bongaigaon Refinery  
P.O. : Dhaligaon - 783 385  
Dist. : Chirang (Assam)

रिफाइनरीज प्रभाग  
Refineries Division

IOC/BGR/ENV/INDMAX/MoEF/2012-13/02

Date: 17.05.2013

To

**The Chief Conservator of Forests**  
Regional Office, North East Region  
Ministry of Environment & Forests  
Law-U-SIB, Lumbatngen, Near M.T.C. Workshop,  
**Shillong – 793021**

**Subject: Half yearly Report for the period of 1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013  
for Indmax Project**

Dear Sir,

With reference to above, we are enclosing the Six Monthly Report for the period of **1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013** for your kind perusal. The reports are being sent as per EIA Rules'2006 on the "Environmental Clearances" issued by MoEF to Bongaigaon Refinery, (BGR) for "Indmax Project".

Thanking you,

Yours faithfully,

(A.K. Agarwal)  
Chief Manager (HSE)

Copy to:

1. Member Secretary, Pollution Control Board, Assam  
Bamunimaidam, Guwahati - 781 021
2. Zonal Officer, Central Pollution Control Board  
Eastern Zonal Office, 'TUM-SIR', Lower Motinagar,  
Near Fire Brigade H.Q., Shillong – 793014

## Status of Indmax Project

### Six Monthly Status report for the period (1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013)

Environmental Clearance for "Indmax Project (INDMAX FCC Unit along with Indmax Gasoline De-Sulphurisation Unit) to eliminate production of black oils (LDO, LVFO & LSHS) and Naphtha" by M/s Bongaigaon Refinery & Petrochemicals Ltd. vide MoEF's letter No. J-11011/9/2008- IA II (I) dated 02/09/2008.

S.N	SPECIFIC CONDITIONS	COMPLIANCE STATUS
i	M/s BRPL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R.186(E) dated 18 <sup>th</sup> March 2008. The design of INDMAX FCC unit shall incorporate process features and equipments to comply with the emission and effluent standards for petroleum refinery.	<p>Basic Design Engineering Package / Process Package have been prepared in line with the existing standards / norms for Oil Refinery Industry which will be further reviewed during Detailed Engineering, if required.</p> <p>Detailed engineering / implementation would start after approval of the project</p>
ii.	The process emissions (SO <sub>2</sub> , NO <sub>x</sub> , CO & HC) from various units shall conform to the standards prescribed by the Assam State Pollution Control Board from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved. The company shall use sweet fuel gas and install low NO <sub>x</sub> burner in the furnace.	
iii.	Ambient air quality monitoring stations, [SPM, SO <sub>2</sub> , NO <sub>x</sub> and NMHC, Benzene] shall be set up in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs Continuous on-line stack monitoring equipment shall be installed for measurement of SO <sub>2</sub> & NO <sub>x</sub> .	
iv.	Monitoring of fugitive emissions shall be carried out as per the guidelines of CPCB and reports shall be submitted to the Ministry's regional office at Shillong. For control of fugitive emission all unsaturated hydro carbon will be routed to the flare system and the flare system shall be designed for smoke less burning.	
v.	Fugitive emissions of HC from product storage tank yards etc must be regularly monitored. Sensors for detecting HC leakage shall also be provided at strategic locations.	
vi	The sour water containing H <sub>2</sub> S and NH <sub>3</sub> shall be treated in sour water stripper. The combined streams of strip sour water from the INDMAX FCC unit and INDMAX Gasoline Desulphurization unit shall be treated in the ETP followed by tertiary treatment plant to meet the prescribed standards for petroleum refinery. Efforts shall be made to recycle the treated effluent.	
vii.	The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during flaring.	

<b>S.N</b>	<b>SPECIFIC CONDITIONS</b>	<b>Compliance Status</b>
viii.	To prevent fire and explosion at Oil and Gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable material shall be in place.	Equipment layout is based on OISD norms. Further, HAZOP study has been carried out on the P&IDs. Besides, HAZOP study will be carried out during Detailed Engineering also.
ix.	Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.	Since the project is not yet approved, there is no worker under the project. However, regular health check-up is carried out for the employees of Bongaigaon Refinery which will be continued / extended for workers working under Indmax Project.
x.	Greenbelt shall be developed to mitigate the effect of fugitive emission all around the plant in a minimum 33% plant area in consultation with DFO as per CPCB guidelines.	Greenbelt is already existed. Green cover exists in 2/3 of the plant area.
xi.	M/s BRPL shall undertake measures for rain water harvesting to recharge the ground water and minimize fresh water consumption.	BGR had implemented 8 roof top rain water harvesting projects in BGR complex were implemented till date in order to recharge the ground water table.
i.	The project authorities must strictly adhere to the stipulations made by the concerned State Pollution Control Board (SPCB) and the State Government and any other statutory body.	Stipulations made in the environmental clearance of the project would be addressed during detailed engineering also. The same has been addressed in the Basic Engineering Design Package, wherever applicable.
ii.	No further expansion or modification in the project shall be carried without prior approval of the Ministry of Environment and Forests. In case of deviations or alternations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry.	In case of requirement of expansion / modification of the project in future, prior approval of the Ministry of Environment and Forests shall be taken.
iii.	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system, the respective well site should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved. Provision of adequate height of stack attached to DG sets & flare is to be done.	In the event of failure of any pollution control system, the respective site shall be kept out of operation until the desired efficiency has been achieved. Height of stack attached to DG sets & flare is as per existing CPCB guidelines.

<b>S.N</b>	<b>General Conditions</b>	<b>Compliance Status</b>
iv.	Wastewater shall be properly collected and treated so as to conform to the standards prescribed under EP Act & Rules and mentioned in the Consents provided by the relevant SPCB.	Waste water shall be routed through pipeline to ETP for treatment.
v.	The overall noise levels in and around the premises shall be limited within the prescribed standards (75 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Action taken..

vi.	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the expansion project, if required. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	On-site and Off-site Disaster Management Plans are already in place which shall be reviewed and modified (if required) at appropriate time of implementation of the project.
vii.	Disposal of hazardous wastes shall be as per the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/storage/disposal of hazardous wastes.	Noted
viii.	The project authorities will provide adequate funds as non-recurring and recurring expenditure to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	Noted
ix.	The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.	Noted
x.	The stipulated conditions will be monitored by the concerned Regional Office of this Ministry /Central Pollution Control Board/State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly. It will also be displayed on the Website of the Company.	Noted
xi.	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment & Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the concerned Regional office of this Ministry.	Published in 3 local news paper viz. The Assam Tribune ( English Daily), "Dainik Agradoot" (Assamese daily) and "Sanseyari Bodosa (Bodo daily) on 26.09.2008
xii.	A separate environment management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.	BGR is already having a separate environmental management cell and full fledged laboratory to carry-out environment management and monitoring functions.  BGR Env. Laboratory accredited by NABL
xiii.	The project authorities 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 the project	Noted

## **APPENDIX:**

### **Status of Indmax Project**

**Six Monthly Status report for the period (1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013)**

**Following are some of the important mile stones towards implementation of the Indmax project:**

**1. Grant of “Environment Clearance” from the Ministry of Environment & Forest:**

The Ministry of Environment & Forests has accorded ‘Environment Clearance’ for “Indmax Project (INDMAX FCC Unit along with Indmax Gasoline De-Sulphurisation Unit) to eliminate production of black oils (LDO, LVFO & LSHS) and Naphtha” at Dhaligaon, Chirang, Assam by Bongaigaon Refinery of IOCL (Earstwhile Bongaigaon Refinery & Petrochemicals Ltd.) vide MoEF’s letter No. J-11011/9/2008- IA II (I) dated 02/09/2008.

**2. Press Advertisement for grant of “Environment Clearance”:**

BGR had advertised “Public Notice” in three local news papers that are widely circulated in the region namely “The Assam Tribune” English Daily, “Dainik Agradoot” Assamese Daily & “Sanseyari Bodosa” Bodo daily on 26<sup>th</sup> September, 2008 in order to inform the public that the project has been accorded Environmental Clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>.

**3. Application for “NOC” from State Pollution Control Board:**

BGR had applied “No Objection Certificate (NOC)” to the Pollution Control Board, Assam vide our letter No. BGR/ENV/INDMAX/NOC/08-09/01 dated 14<sup>th</sup> November, 2008. NOC has been obtained from PCBA on 27<sup>th</sup> April, 2009 and 31<sup>st</sup> July, 2009.

**4. Project Status:**

**Detailed Feasibility Report:**

- I. The Basic Design Engineering Packages (BDEP) for the Indmax project have been prepared keeping in view of various standards/norms for Oil Refinery. **Detailed Feasibility Report for the project has been prepared and is under review for investment approval.**
- II. After investment approval, Detailed Engineering will be done during implementation. During Detailed Engineering, the basic design of the process units and other offsite facilities will be further reviewed and necessary changes, if any, will be made to comply with the new environment standards/norms with respect to process emissions, fugitive emissions, ambient air quality, noise levels, quality & disposal of effluents and disposal of hazardous wastes.

As informed earlier, the above status will remain unchanged till project approval accorded..