इंडियन ऑयल कॉर्पोरेशन लिमिटेड
बोंगाइगाँव रिफाइनरी
डाकघर : धालीगाँव - 783 385
जिला : चिरांग (असम)
Indian Oil Corporation Limited
Bongaigaon Refinery
P.O. : Dhaligaon, Dist. : Chirang, Assam-783385
Phone : 03664-
E-mail :
Website : www.iocl.com FAX : 03664-

रिफाइनरी प्रभाग
Refineries Division

REF: IOC/BGR/ENV/IndMax/MoEF&CC/2024-25/01 **Date: 21/12/24**

To
The Regional Officer,
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office, Guwahati,
4th Floor, House fed Building,
GS Road, Rukminigaon Guwahati-781022

Subject: Half Yearly Report for the period of (1st April'24 to 30th September'24) for

BGR "INDMAX & BS-VI PROJECTS"

Reference: EC Reference: J-11011/48/2016-IA-II (I) Dt. 19.04.2017

Dear Sir,

With reference to above, we are enclosing the Six Monthly Report for the period of **1st April'24 to 30th September'24** for your kind perusal.

The reports are being sent as per EIA Rules'2006 for the "Environmental Clearances" issued by MoEF&CC to Bongaigaon Refinery, (BGR) for "**INDMAX & BS-VI PROJECTS**"

Thanking you,

Yours faithfully,

21/12/24

(Biman Gogoi)
DGM (HSE)
O/P: 03664-25-3302
M-9435122647

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

Half yearly Report for BGR INDMAX & BS-VI Project

(1st April 2024 to 30th September 2024)

Submitted by:

Indian Oil Corporation Limited

Bongaigaon Refinery

PO: Dhaligaon. District: Chirang. Assam

SM (HSE)

O (HSE)

Details of the Project

IOCL, the energy of India is contributing the nation in its development by means of employment generation and through CSR activity. For the development of the nation as well as the company and for Environment protection, IOCL is adding new plant for environment friendly and value added product. IOCL, Bongaigaon Refinery has established a new unit, INDMAX for LPG maximization and BS-VI project for cleaner fuel.

To establish the new unit, EIA study was done by M/s ABC TECHNO LABS INDIA PVT. LTD, Chennai.

Based on the EIA study, IOCL, BGR applied for EC to MoEF&CC on 31/05/2015.

Going through all the process and formalities, MoEF&CC granted EC No. J-11011/48/216-IA-II (I), Dated: 19th April 2017 to IOCL, BGR to establish following projects:

sl	Units	Date of commissioning
1.	Refinery capacity enhancement from 2.35 MMTPA to 2.70 MMTPA	30.04.2021 (after commissioning of NHT Unit under BS-VI Project)
2.	INDMAX FCC Unit, 740 TMTA	07.11.2020
3.	Prime- G+/ BS-VI projects (Including SRU, SDS/ARU)	Prime G+ : 05.12.2020 ARU : 30.10.2020 SDS : 30.04.2021 SRU : 24.06.2022
4.	DHDT capacity enhancement from 1.2 MMTPA to 1.8 MMTPA	15.03.2020
5.	HGU Revamp (Capacity enhancement from 25 TMTPA to 30 TMTPA)	12.03.2020
6.	CRU-MSQ Revamp	With the commissioning of Prime-G+/ BS-VI projects

Compliance report for the above projects is listed below:

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Six Monthly Status Report for the period (1st April 2024 to 30th September 2024)

INDEX:

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1.0

BGR INDMAX & BS-VI PROJECTS: EC CONDITIONS, COMPLIANCE STATUS.
EC Reference: J-11011/48/2016-IA-II (I) Dt. 19.04.2017
Six Monthly Status Report for the period (1st April 2024 to 30th September 2024)

Special Conditions:

EC Sl No	Condition	Compliance Status
(i)	All pollution control and monitoring equipments shall be installed, tested and interlocked with the process.	**Complied** Total 20 nos. of SOx, NOx, CO and PM analyzers have been installed in all 5 stacks of - 1. ATF Splitter re boiler 2. New NHT furnace 3. New SRU furnace 4. INDMAX Flue Gas Boiler 5. PrimeG+ ---two new furnaces with common stack (102-F-01 & 102-F-02)
	SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, rain water harvesting structure, Greenbelt, uploading of compliance report on the website etc have been implemented.	• CTO "**Consent to Operate**" for commissioning projects issued by PCBA vide letter no. WB/BONG/T-2266/pt-I/08-09/51/580, dated 15/10/2020. • "**Consent to Operate**" for whole refinery including all commissioned Projects has been renewed by PCBA with validity period till **31/03/2027** vide letter no. WB/BONG/T-2266/08-09/58/154 dated 25/04/2022. • All the units of the Project were commissioned successfully. • Construction of storm water drains in the project area completed. • Two roof top RWH schemes were commissioned in the new project and under function. This is in addition to a total of 21 nos. of RWH schemes for ground water recharge already existing in BGR combining both refinery and township. • Details of setting up green belt in different phases (Phase-I & II) ❑ Phase-1: 10000 saplings planted in newly developed green belt area (Old debris yard area) during May-July 2017. Photograph of the green belt attached. <u>Details of plantation done in and around the complex, since 2017-18</u> ❖ Year 2017-18: 29600 nos of saplings ❖ Year 2018-19: 30060 nos. of saplings ❖ Year 2019-20: 14340 nos. of saplings ❖ Year 2020-21: 25606 nos. of saplings ❖ Year 2021-22: 1,00,000 nos. of saplings (Including outside location from the refinery, township & North side of the IndMax unit: 11,500 sapling planted) ❖ Year 2022-23 : 27610 nos. of saplings planted ❖ Year 2023-24: 100630 nos. of saplings planted ❖ Year 2024-25 (Till September): 107530 nos. of saplings planted ❑ Phase-2:: Plantation will be continued in the following areas: (a) North/west side of the complex, in between LPG bottling plant a newly developed green belt area**:** Plantation done (b) Surrounding of PSF Building area (c) Downward direction and along road side of new project area **:** Plantation done

EC Sl No	Condition	Compliance Status
		Uploading of EC compliance status report on the website is in practice. See **(Appendix-A10).**

EC Sl. No	Special Condition	Compliance Status
(ii)	Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM10, PM2.5, SO2, NOx, VOC and CO shall be monitored in the ambient air and emissions from the stacks and displayed at a convenient location near the main gate of the company or at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF&CC, the respective Zonal office of CPCB and the state Pollution Control Board (SPCB).	• Online Ambient air quality data & Stack emission monitoring data of the existing units including new units viz IndMax, Prime-G, NHT and New SRU (SRU-II) are being displayed at BGR Main gate. • DHDT ATF furnace is not commissioned till now. The results of monitored data are uploaded on IOCL website. Also half yearly status reports for the running units are submitted in the month of December and June to the Regional office of MoEF&CC, the Zonal office of CPCB and the State Pollution Control Board (SPCB) regularly.
(iii)	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/ materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the SPCB.	Fugitive emissions are monitored from all vulnerable sources (i.e. Glands, flanges, pump seal etc) and rectification is carried out if leakage is observed. Quarterly fugitive emissions Survey is being carried out regularly in the work zone environment, product, raw materials storage area etc. and confirm the emission limits stipulated by as per SPCB norms. The quarterly fugitive emission reports for the period of **1st April, 2024 to 30th Sept., 2024** are attached as **Appendix-A5** All liquid and gaseous products and chemicals are handled in the closed system. Water sprinkling system is being taken care off at loading area to control dust emission.
(iv)	The project proponent shall take due care and adopt best practices to ensure that there is no oil spill. However, to meet with any unforeseen situation and combat the oil spill, the PP shall prepare the Oil Spill Disaster Contingency Plan in line with the provisions of the National Oil Spill Disaster Contingency Plan. Regular mock drills shall also be conducted.	Approved Emergency Response & Disaster Management Plan (ERDMP) is in place at BGR to handle any unforeseen situation due to oil spill and mock drills (on-site & off-site) conducted quarterly on various emergency scenarios. Onsite & offsite Mock drills for FY 24-25 (Q-1, Q-2) conducted on 22/06/24 & 25/09/24, respectively.

EC Sl No	Special Condition	Compliance Status
(v)	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate noise pollution.	**Complied** The gaseous emission from DG set is dispersed through adequate stack height (3.0 Mtrs as per CPCB standards). However, DG set is not available for the new projects.
(vi)	Total fresh water requirement from existing source shall not exceed 370m^3/hr and prior permission shall be obtained from the Competent Authority. No ground water shall be used without permission.	CGWA has issued NOC No: CGWA/NOC/IND/ORIG/2023/18583, Dated: 24/05/2023, Valid from 21/04/2021 to 20/04/2024 Renewal for NOC from CGWA for ground water extraction for Fresh water requirement for refinery use applied. Application No: 21-4/ 1306 /AS / IND/2021, dated:04/04/2024.
(vii)	Wastewater shall be treated in ETP. The treated effluent water shall be reused as make up water for cooling tower and green belt development. No Effluent shall be discharged outside the plant premises.	a. Wastewater is treated in ETP and further polished. in TTP. b. The treated effluent water is reused as make up water for cooling tower, Fire water network, housekeeping and horticulture. c. No effluent is discharged outside the plant premises. Reused 100%
(viii)	Automatic / online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.	Online Continuous treated effluent monitoring system for flow measurement and relevant pollutants in the treatment system is available. Online data is made available to CPCB and SPCB and rolling displayed at BGR main gate. Data also uploaded in company's website along with the six monthly compliances report.
(ix)	Adequate odour management plan and its mitigation measure to be implemented on priority.	Adequate odour management plan and its mitigation measure had been implemented along with the project.
(x)	Regular VOC monitoring to be done at vulnerable points.	Occupational Health section is monitoring the VOC at different vulnerable areas in the Refinery on a monthly basis.
(xi)	The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit.	The oily sludge is processed in melting pit for oil recovery and stored in brick lined sludge lagoon. Oily sludge from lagoon is processed for recovery of oil regularly. A third party is engaged for processing of the oily sludge & recovery of oil from the oily sludge stored in the sludge lagoon. During 1st April 2024 to 30th Sept 2024, **2339.0** MT of oily sludge has been processed by mechanized processing. Melting pit facility is also available for recovering oil from oily sludge The leftover residue (**600 MT**) is further bio-remediated before disposal.
(xii)	Comprehensive water audit to be conducted on an annual basis and report to the concerned Regional Office of MoEF&CC. Outcome from the report to be implemented for conservation scheme.	• Complied • M/s EIL conducted a comprehensive water audit & final report submitted. • Action plan formulated and implemented phase-wise of short- & long-term conservation schemes.

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		• Water Audit conducted in the month of February-2024 and submitted to CGWA for NOC renewal application

(xiii)	Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.	**Complied** Oil catchers/ oil traps are already there in the existing storm water channel and have been installed in rain/ storm water drainage system in the new project also. One additional oil catcher/oil trap system provided in rain/storm water drain channel along with project
(xiv)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.	**Complied** Hazardous chemicals are stored in tanks and drums.
		Complied Flame arrestors are installed as per design of tanks in tank farm.
		Installation of solvent transfer pumps is completed.
(xv)	The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained.	Hazardous by-products generated from commissioned units will be subjected to pre treatment facility in EPT facility being set up in the complex. Post pre treatment, the effluents containing hazardous by-products will undergo treatment in main effluent treatment of refinery complex (WWTP& TTP) for meeting the MINAS as per statutory guidelines.
(xvi)	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	The rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 is complied.
		Transportation of Hazardous Chemicals is followed as per the Motor Vehicle Act (MVA), 1989.
xvii)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms	Gas detectors with Hooters installed and commissioned in DHDT Revamp, HGU Revamp, INDMAX FCCU, Prime G+, NHT and ARU.Gas detectors also installed in SRU.
		Fire fighting system installed as per OISD-STD-116 and commissioned.
(xviii)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	**Complied.** Occupational health surveillance of the workers are done on a regular basis and records maintained as per the Factories Act. Details attached as **Appendix-A12**.
(xix)	At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup /details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.	As per MoEF&CC guideline dtd. 1st May 2018, ESC has been replaced with CER (Corporate Environment Responsibility). Expenditure incurred under CSR for the year: 2016-17: Rs. 304.84 lakhs 2017-18: Rs. 740.95 lakhs 2018-19: Rs. 960.00 lakhs 2019-20: Rs. 916.08 lakhs 2020-21: Rs. 184.66 lakhs 2021-22: Rs 681.41 lakh 2022-23: Rs 667.54 lakhs

		2023-24: Rs.1063.43 lakhs Expenditure incurred under CER for the year: FY 2024-25 Rs. 159.39 lakhs till 30/09/2024 and total 1588.35 Lakhs till 30/09/24 against the project.
(xx)	A regular Environment Manager, having post graduate qualification in environmental sciences/ environmental engineering, to be appointed for looking after the environmental management practices in the plant.	HSE dept. had officer with one year PG Diploma course on Env. Management from Tezpur University complying to EC condition. The officer is posted in Panipat refinery from May'22 as per IOCL transfer posting policy for officers having served one location for more than 5-6 years. New 2 nos. B-Tech chemical engineers have been posted in HSE dept. for environmental monitoring jobs to occupy the role of outgoing officer. Further, HSE dept. has always been putting constant effort for ensuring proper environmental management practices in the plant by both direct monitoring and also by engaging MoEF&CC accredited external environmental monitoring agencies. The EC condition therefore may be considered as complied.
(xxi)	As proposed, green belt over 33% shall be developed within plant premises with at least 10 meter wide green belt (perennial trees) on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Details of setting up of green belt in different phases(Phase-I&II) ❑ Phase-1: 10000 saplings planted in newly developed green belt area (Old debris yard area) during May-July 2017. Photograph of the green belt attached.. <u>Details of plantation done in and around the complex, since 2017-18</u> ❖ Year 2017-18: 29600 nos of saplings ❖ Year 2018-19: 30060 nos. of saplings ❖ Year 2019-20: 14340 nos. of saplings ❖ Year 2020-21: 25606 nos. of saplings ❖ Year 2021-22: 1,00,000 nos. of saplings (Including outside location from the refinery, township & North side of the IndMax unit: 11,500 sapling planted) ❖ Year 2022-23 : 27610 nos. of saplings planted ❖ Year 2023-24 : 100630 nos. of saplings planted ❖ Year 2024-25 (Till September): 107530 nos. of saplings planted ❑ Phase-2:: Plantation will be continued in the following areas: (a) North/west side of the complex, in between LPG bottling plant a newly developed green belt area : Plantation done (b) Surrounding of PSF Building area (c) Downward direction and along road side of new project area **:** Plantation done

EC GENERAL CONDITIONS:

EC Sl No	Condition	Compliance Status
(i)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB) State Government and any other statutory authority.	Strict adherence to stipulations made by Statutory authorities complied along with project implementation.
(ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted and being complied.
(iii)	The location of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	• 4(Four) manual ambient air quality monitoring stations(2 at upwind & 2 at down wind direction) are installed inside the refinery complex in consultation with the State Pollution Control Board. • 1(One) manual ambient air quality monitoring station is in BGR township. • 1(One) more continuous ambient air quality monitoring station is in BGR Township. Real time data from the same is being shared with / transmitted to CPCB/PCBA
(iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	NAAQES issued by the Ministry is being followed & complied.
(v)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied. Taken care during implementation of the project. Quarterly Noise Survey is being carried out regularly for noise level monitoring; Quarterly Reports Q-1 (24-25) & Q-2 (24-25) are attached as **Appendix-A8**.
(vi)	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	• 2 (Two) roof top RWH schemes commissioned in the new project • This is in addition to total 21 nos. of RWH schemes, including one in storm water channel for ground water recharge, already existing in BGR combining both refinery and township. • Total 23 nos.(19+4) nos. of Rainwater Harvesting Projects has been implemented so far in BGR covering roof area of 22267.1 SQM and surface area of 32900 SQM, having potential rainwater harvesting volume of 153822 M^3. • Storm water is being collected in the Eco-Pond for ground water recharge and using the same in the projects to the extent possible.

EC Sl. No	General Condition	Compliance Status
(vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Training on safe handling of chemicals is imparted to all employees. Pre-employment and routine periodical medical examinations for all employees are undertaken on regular basis. Details of occupational health checkup (OHC) attached as**Appendix-A12**.
(viii)	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Environmental protection measures and safeguards as recommended in EIA has been complied and implemented along with commissioning of the project.
(ix)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	• Measures for improving the socio-economic condition of the surrounding area is undertaken under CSR activities on yearly basis. • Expenditure incurred under CSR for the year: • 2016-17: Rs. 304.84 lakhs • 2017-18: Rs. 740.95 lakhs • 2018-19: Rs. 960.00 lakhs • 2019-20: Rs. 916.08 lakhs • 2020-21: Rs. 184.66 lakhs • 2021-22: Rs 681.41 lakh • 2022-23: Rs 667.54 lakhs • 2023-24: Rs.1063.43 lakhs. • 2024-25: Rs. 324.31 lakhs till 30/09/24
(x)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Measures are being undertaken in the nearby villages of the project area under CER. Expenditure incurred under CER for the year: FY 2024-25 Rs. 159.39 lakhs till 30/09/2024 and total 1588.35 Lacks till 30/09/24 against the project.
(xi)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Already exists. BGR is having a separate environmental monitoring dept. (**HSE dept.**) and a full-fledged **Quality control laboratory** to carry-out environment management and monitoring functions. BGR Environment Laboratory is accredited by NABL **Appendix-A11**
(xii)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation	Fund is earmarked and available per annum for compliance of jobs pertaining to EC conditions. No any fund is diverted for any other purposes

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	schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purposes.	

(xiii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Not Applicable. However, the clearance dated 19.04.2017 has been published in local dailies, "The Sentinel" and "Amar Asom" on 27.04.2017.
(xiv)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and concerned SPCB. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	Noted and being complied. Soft copy of last six monthly compliance reports was submitted vide, document no. **IOC/BGR/ENV/ INDMAX/ MoEF&CC/2023-24/02, Date: 27.06.2024** Same is also uploaded in IOCL website. Ref: **Appendix-A10**
(xv)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Noted and under compliance. **Appendix-A10**
(xvi)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in. This shall 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 shall be forwarded to the concerned Regional Office of the Ministry.	Complied. The granting of Environment clearance dated 19.04.2017 has been published in "The Sentinel" and "Amar Asom" on 27.04.2017. The copy of the publication of EC forwarded to the Regional office of MoEF&CC, Shillong and SPCB office on 08.05.2017.
(xvii)	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.	Complied Date of final approval and the date of start of the project were informed to the Regional office as well as Ministry vide letter dtd. 08.05.2017. Financial closure of the Project is not yet completed due to some legal issues with the vendors/contractors.

2.0

APPENDIX –A1

STACK MONITORING DATA: (1st April 2024 to 30th September 2024)

A. SO_2 Emission (mg/Nm^3)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing refineries For F.O. = 1700 For F.G. = 50 For New Refineries For F.O. = 850 For F.G. = 50	0.50	23.53	33.03
DCU-I		1.99	6.21	9.00
CDU-II		2.29	3.00	3.15
DCU-II		3.68	3.68	3.68
CPP		0.01	2.38	13.20
HO-1		0.12	72.52	294.84
Reformer		34.96	35.00	35.04
HO-2			Shut Down	
Isomerization		0.06	8.90	34.82
DHDT		6.51	7.02	7.85
HGU		2.07	3.03	10.74
NEW SRU		324	414	537
GTG		0.01	0.27	9.79
IGHDS		0.04	1.23	2.35
NHT		4.10	12.92	84.42
INDMAX		2.11	4.81	6.99

B. NO_X Emission (mg/Nm^3)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing refineries For F.O. = 450 For F.G. = 350 For New Refineries For F.O. = 350 For F.G. = 250	38.57	40.20	44.20
DCU-I		4.83	5.00	5.20
CDU-II		0.00	1.22	6.94
DCU-II		13.27	13.54	13.90
CPP		33.47	33.50	33.52
HO-1		0.00	55.32	99.24
Reformer		34.52	34.54	34.56
HO-2			Shut Down	
Isomerization		5.84	41.53	79.55
DHDT		3.96	4.42	5.23
HGU		16.71	33.50	56.37
NEW SRU			NA	
GTG		15.99	16.01	16.91
IGHDS		0.00	19.55	36.47
NHT		0.00	4.83	22.35
INDMAX		103.06	103.06	103.06

C. PM Emission (mg/Nm^3)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing refineries For F.O. = 100 For F.G. = 10 For New Refineries For F.O. = 50 For F.G. = 5	0.86	0.92	1.28
DCU-I		0.66	0.68	0.71
CDU-II		0.99	13.05	20.96
DCU-II		0.72	5.98	13.80
CPP		1.39	1.49	1.65
HO-1		1.55	7.39	24.66
Reformer		2.68	2.69	2.72
HO-2		Shut Down		
Isomerisation		1.28	1.29	1.34
DHDT		2.18	2.29	2.30
HGU		0.19	27.25	33.31
NEW SRU		5.80	6.15	6.50
GTG		1.12	4.89	10.46
IGHDS		0.05	1.05	1.96
NHT		0.88	3.47	8.30
INDMAX		0.00	16.73	32.2

STACK MONITORING DATA: (1stApril, 2024 to 30th Sept. 2024)

D. CO Emission (mg/Nm^3)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing refineries For F.O. = 200 For F.G. = 150 For New Refineries For F.O. = 150 For F.G. = 100	9.27	9.31	9.37
DCU-I		1.00	1.63	2.33
CDU-II		8.58	8.60	8.63
DCU-II		0.06	0.11	0.23
CPP		17.98	18.00	18.02
HO-1		14.98	15.00	15.03
Reformer		12.48	12.50	12.52
HO-2		Shut Down		
Isomerisation		12.36	12.41	12.46
DHDT		1.54	5.32	30.64
HGU		0.36	13.41	17.81
SRU		42.00	45.25	50.00
GTG		0.26	10.22	22.98
IGHDS		2.32	2.99	5.88
NHT		0.25	27.11	56.88
INDMAX		0.00	0.30	20.87

MKnayak SM(HSE) O(HSE)

STACK MONITORING DATA: (1st April 2024 to 30th September 2024)

E. Ni + V Emission (mg/Nm^3):

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For F.O. = 5	BDL	BDL	BDL
DCU-I		BDL	BDL	BDL
CDU-II		BDL	BDL	BDL
DCU-II		BDL	BDL	BDL
CPP		BDL	BDL	BDL
HO-1		BDL	BDL	BDL
Reformer		BDL	BDL	BDL
HO-2		Shut Down		
Isomerisation		BDL	BDL	BDL
DHDT		BDL	BDL	BDL
HGU		BDL	BDL	BDL
NEW SRU		BDL	BDL	BDL
GTG		BDL	BDL	BDL
IGHDS		BDL	BDL	BDL
NHT		BDL	BDL	BDL
INDMAX		BDL	BDL	BDL

AMBIENT AIR QUALITY AROUND BGR COMPLEX

(Average of monthly sample Schedule – VII)

(1st April 2024 to 30th September 2024)

	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant	Rural Health Centre	Bartala Rail Gate	Near TW No.7 in Township
1	SO_2 (Std. 50/80 µg/m^3)						
	Min	0.70	14.20	14.20	16.20	17.32	11.40
	Average	0.70	21.10	19.71	21.57	23.05	17.39
	Max	0.71	28.50	25.60	27.57	31.80	22.50
	No. of observation	Continuous	53	53	53	53	53
2	NO_2 (Std. 40/80 µg/m^3)						
	Min	0.03	17.80	19.75	18.50	24.10	2.41
	Average	0.46	29.06	24.01	26.71	30.27	20.31
	Max	2.61	35.10	32.30	33.60	38.20	25.60
	No. of observation	Continuous	53	53	53	53	53
3	PM-10 (Std. 60/100 µg/m^3)						
	Min	23.71	70.00	67.70	58.40	68.80	41.30
	Average	24.97	77.51	75.47	71.45	79.28	48.58
	Max	25.88	89.90	87.20	85.70	92.30	55.10
	No. of observation	Continuous	53	53	53	53	53

SM (HSE) O(HSE)

	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant	Rural Health Centre	Bartala Rail Gate	Near TW No.7 in Township
4	PM-2.5 (Std. 40/60 µg/m^3)						
	Min	8.60	21.38	20.51	23.10	21.57	16.23
	Average	9.96	29.53	27.11	30.56	29.53	23.50
	Max	10.95	36.20	32.40	35.50	37.80	29.40
	No. of observation	Continuous	53	53	53	53	53
5	Ammonia (Std. 100/400 µg/m^3)						
	Min	1.69	23.60	21.37	21.40	23.40	19.20
	Average	1.70	29.77	26.95	29.01	30.92	24.26
	Max	1.71	42.20	38.80	38.50	45.60	31.10
	No. of observation	Continuous	53	53	53	53	53
6	Pb (Std. 0.5/1.0 µg/m^3)						
	Min		BDL	BDL	BDL	BDL	BDL
	Average		BDL	BDL	BDL	BDL	BDL
	Max		BDL	BDL	BDL	BDL	BDL
	No. of observation		53	53	53	53	53
7	Arsenic (As) (Std. 6 ng/m3)						
	Min		BDL	BDL	BDL	BDL	BDL
	Average		BDL	BDL	BDL	BDL	BDL
	Max		BDL	BDL	BDL	BDL	BDL
	No. of observation		53	53	53	53	53
8	Ni (Std. 20 ng/m3)						
	Min		BDL	BDL	BDL	BDL	BDL
	Average		BDL	BDL	BDL	BDL	BDL
	Max		BDL	BDL	BDL	BDL	BDL
	No. of observation		53	53	53	53	53
9	CO (Std. 2/4 mg/m3						
	Min	0.99	0.93	0.91	0.54	0.96	0.86
	Average	1.32	1.11	1.10	1.24	1.17	1.04
	Max	1.34	1.38	1.29	1.87	1.65	1.20
	No. of observation	Continuous	53	53	53	53	53

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	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant	Rural Health Centre	Bartala Rail Gate	Near TW No.7 in Township
10	Ozone (Std.100/180 µg/m^3 for 8 hrs/1 hr)						
	Min	34.9	14.4	13.9	15.1	17.8	10.1
	Average	35.0	21.0	20.0	21.4	23.4	16.7
	Max	35.1	28.5	25.4	26.4	31.5	21.6
	No. of observation	Continuous	53	53	53	53	53
11	Benzene (Std. 5 µg/m^3)						
	Min	0.55	BDL	BDL	BDL	BDL	BDL
	Average	0.55	BDL	BDL	BDL	BDL	BDL
	Max	0.55	BDL	BDL	BDL	BDL	BDL
	No. of observation	Continuous	53	53	53	53	53
12	Benzo (a) Pyrene (Std. 1 ng/m^3)						
	Min		BDL	BDL	BDL	BDL	BDL
	Average		BDL	BDL	BDL	BDL	BDL
	Max		BDL	BDL	BDL	BDL	BDL
	No. of observation		53	53	53	53	53

Average of Six Stations

Parameter	SO_2	NO_2	PM-10	PM-2.5	NH_3	Pb	As	Ni	Benzo (a) Pyrene	CO	C_6H_6	O_3
Unit	µg/m^3						ng/m^3			mg/m^3	µg/m^3	
NAAQ Std. 2009	50/ 80	40/ 80	60/ 100	40/ 60	100/ 400	0.5/ 1.0	Max 6	Max 20	Max 1	2/4	Max 5	100/ 180
Min	0.70	0.03	23.71	8.60	1.69	BDL	BDL	BDL	BDL	0.54	0.55	10.10
Average	17.25	21.80	62.88	25.03	23.77	BDL	BDL	BDL	BDL	1.16	0.55	22.93
Max	31.80	38.20	92.30	37.80	45.60	BDL	BDL	BDL	BDL	1.87	0.55	35.10

SM (HSE)

O(HSE)

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APPENDIX-A2

Effluent Discharged (Figure in M^3/Hr): (1st April 2024 to 30th September 2024)

A	Industrial Effluent M^3/Hr	134.2
B	Domestic Effluent from BGR Township M^3/Hr	45.5
C	Total Effluent Treated (A + B) M^3/Hr	179.7
D	Treated Effluent Reused M^3/Hr	179.7
E	Effluent Discharged M^3/Hr	0.00
F	M^3 of Effluent discharged for 1000 tons of Crude processed	0.00

1. Treated Effluent Quality

(1st April, 2024 to 30th September, 2024)

Sl. No	Parameter	Std,2008	Min	Avg.	Max
1	p^H value	6.0 - 8.5	7.32	7.50	7.66
2	Oil and Grease, mg/l	5.0	2.00	2.40	3.00
3	Bio-Chemical Oxygen Demand (3 Day at 27°C), mg/l	15.0	11.00	12.17	13.00
4	Chemical Oxygen Demand (COD), mg/l	125.0	60.00	65.33	70.00
5	Suspended solids, mg/l	20.0	13.00	15.67	17.00
6	Phenolic compounds (as C6H5OH), mg/l	0.35	0.15	0.24	0.35
7	Sulphide (as S), mg/l	0.50	0.08	0.21	0.48
8	CN mg/l	0.20	0.02	0.02	0.02
9	Ammonia as N, mg/l	15.0	1.95	2.43	3.05
10	TKN, mg/l	40.0	3.08	4.28	5.12
11	P, mg/l	3.0	0.67	0.78	0.86
12	Cr (Hexavalent), mg/l	0.10	-	BDL	-
13	Cr (Total), mg/l	2.0	-	BDL	-
14	Pb, mg/l	0.10	-	BDL	-
15	Hg, mg/l	0.01	-	BDL	-
16	Zn, mg/l	5.0	0.17	0.25	0.39
17	Ni, mg/l	1.0		BDL	
18	Cu, mg/l	1.0	0.02	0.12	0.16
19	V, mg/l	0.20	-	BDL	-
20	Benzene, mg/l	0.10	-	BDL	-
21	Benzo (a) pyrene, mg/l	0.20	-	BDL	-

 SM (HSE) O(HSE)

2. Final Outlet (From the Complex) storm water channel Quality

(1st April, 2024 to 30th September, 2024)

Sl. No.	Parameter	Std 2008	Min	Avg.	Max
1	p^H value	6.0 - 8.5	7.29	7.37	7.52
2	Oil and Grease, mg/l	5.0	2.00	2.83	4.00
3	Bio-Chemical Oxygen Demand (3 Days at 27° C), mg/l	15.0	10.00	12.67	14.00
4	Chemical Oxygen Demand (COD), mg/l	125.0	70.00	78.67	90.00
5	Suspended Solids, mg/l	20.0	15.00	17.50	19.00
6	Phenolic compounds (as C_6H_5OH), mg/l	0.35	0.27	0.30	0.33
7	Sulphide (as S), mg/l	0.50	0.18	0.29	0.48
8	CN, mg/l	0.20	BDL	BDL	BDL
9	Ammonia as N , mg/l	15.0	2.10	3.09	3.90
10	TKN, mg/l	40.0	2.91	4.21	5.80
11	P, mg/l	3.0	0.98	1.17	1.70
12	Cr (Hexavalent), mg/l	0.10	-	BDL	-
13	Cr (Total), mg/l	2.0	-	BDL	-
14	Pb, mg/l	0.10	-	BDL	-
15	Hg, mg/l	0.01	-	BDL	-
16	Zn, mg/l	5.0	0.32	0.42	0.56
17	Ni, mg/l	1.0		BDL	
18	Cu, mg/l	1.0	0.05	0.10	0.15
19	V, mg/l	0.20	-	BDL	-
20	Benzene, mg/l	0.10	-	BDL	-
21	Benzo (a) pyrene, mg/l	0.20	-	BDL	-

4.0

APPENDIX - A3

Tree Plantation
(1st April 2024 to 30th September 2024)

The entire area inside BGR covered with greenery through massive plantation activities. Through massive plantation work and by giving protection to natural forest growth in side BGR premises, the entire area has become green. The entire plant area where processing plant facilities do not exist has a green cover. This helps in reduction of noise and air pollution level in one hand while on the other hand provides protection to ecological features of the area. The refinery has an excellent quality environment around its complex. Natural greenery can be seen all around the complex as well as in BGR Township in all seasons of the year.

Tree Census was done by Divisional Forest Office, Chirang in the year 2012-13. As per census, 84545 numbers of plants which include trees including shrubs, ocular estimated 33000 numbers bamboos in 1150 no. bamboo culms and also trees, planted by BGR during 2003 to 2012.

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To comply IndMax BS-VI EC conditions, BGR has planted 29600 nos of saplings in the FY 2017-18, in FY 2018-19, 30,062 nos, in FY 2019-20, 14340 nos, in FY 2020-21, 25606 no's, in FY 2021-22, 1,00,000 nos, in FY 2022-23 26710 nos. and in FY 2023-24, 100630 No. of tree saplings planted in and around the complex.

During the FY 2024-25 till 30/09/2024 BGR has planted 107530 nos. of tree saplings.

Tree Plantation 2017-18

Birhangaon State Dispensary Plantation 10000 no's in Aug'2017 and 5375 nos. (2nd Phase in August,2019), Sapling Planted by Miyawaki Method. Growth as on November 2024

SM (HSE)

O(HSE)

Tree Plantation 2018-19

BGR TOWNSHIP PLANTATION, Planted Van mahotsav 2018, Growth as on November 2024

Tree Plantation 2019-20

North Bongaigaon High School, 5250 Sapling Planted by Miyawaki Method in the month of September 2019, Growth as on November 2024.

SM (HSE) O (HSE)

Tree Plantation 2020-21

On WED'2020, 3740 nos. of sapling planted in BGR Township, Growth as on November 2024.

4810 nos of sapling Planted in the month of August'2020 at Hatipota Brahma Mandir, Growth as on November 2024.

MKhayak SM (HSE) [signature] O(HSE).

Tree Plantation 2021-22 (One Lakhs sapling planted during FY 2021-22)

Planted on **WED'2021, in BGR Township Growth as on November 2024**

M Nayak SM (HSE)

O (HSE)

Tree Plantation 2021-22

Planted on **Aug,2021 in the complex, North side of new project (IndMax & BS-VI), Growth as on November 2024**

Planted on Aug,2021, in the complex, North side of new project (IndMax & BS-VI), Growth as on November 2024

M Nayak SM (HSE)

O (HSE)

Tree Plantation 2022-23

Planted o**n WED'2022, in BGR Township, Growth as on November 2024**

Tree Plantation 2023-24

Planted o**n WED'2023, in BGR Township, Growth as on November 2024**

MKnayak SM(HSE)

O(HSE)

Tree Plantation 2023-24

Kashikotra Model Hospital PLANTATION, Planted 2023, Growth as on November'2024

M Nayak SM (HSE)

O (HSE)

5.0

APPENDIX – A 4

Additional Information

(1st April 2024 to 30th September 2024)

Effluent reused during the period is **100%** of the total effluent treated which includes plant effluent as well as BGR Township sewer.

Under the Leak Detection and Repair programme (LDAR), BGR is conducting quarterly Fugitive Emission Survey. During the period from **1st April 2024 to 30th Sept. 2024** all potential leaky points checked, and few Leaky points detected and rectified. By following LDAR programme in true spirit, the company could not only avoid potential loss of **823.83** KG/Day (approx.) of light Hydrocarbon to the atmosphere, through fugitive sources, but also able to keep healthy work environment in the plants.

To ensure work area quality and health of equipment, quarterly noise survey was conducted covering all the operating plants, control rooms and ambient surrounding the BGR. During **1st April 2024 to 30th Sept. 2024** Noise Survey for two quarters of **2024-25 (Q-1 & Q-2)** has been completed and no major abnormality was reported.

As a measure of Hazardous Waste Management, A third party has been engaged for processing tank bottom sludge through mechanized treatment. Another third party is engaged for processing of the oily sludge & recovery of oil from the oily sludge stored in the concrete lagoon. **During the 1st half of 2024-25, 2339.0** MT of oily sludge has been processed by mechanized processing Melting pit facility is available for recovering oil from oily sludge.

One old slurry thickener in ETP from Petrochemical section was converted to confined space bio-remediation reactor to treat oily sludge with help from IOCL-R&D. The process of bioremediation started from July 2017. From **1st April 2024 to 30th Sept. 2024, 600.0 MT** of oily sludge has been disposed off through bio-remediation process.

Bongaigaon refinery has both confined space and open space bio remediation facility.

Bio-remediation facility of BGR

 SM (HSE) O (HSE)

6.0

APPENDIX –A5

Quarterly Fugitive emission survey Data (LDAR)

(1st April 2024 to 30th September 2024)

IOCL- Bongaigaon
Q-1 Fugitive emissio

IOCL- Bongaigaon
Q-2 Fugitive emissio

7.0

APPENDIX-A6 (a)

Annual return of hazardous waste (2023-24)

H W return IOCL
BGR for 2023-24.pdf

8.0

Annexure –A6 (b)

Authorization from PCBA for Hazardous Waste
(Management and Transboundary Movement) Rules 2016

No. WB/BONG/T-748/19-20/109

HW Auth. CertiFicate
22-27.pdf

Pollution Control Board:: Assam
Bamunimaidam; Guwahati-21
(Department of Environment & Forests:: Government of Assam)
Phone: 0361-2652774 & 3150318; Fax: 0361-3150319
Website: www.pcbassam.org

Pollution Control Board, Assam H.O. Guwahati-21

No. WB/T-311/21-22/ 252 Dated Guwahati the, 08. 09. September, 2022

FORM – 2
[See Rule 6(2)]

[Grant of Authorization under the Provision of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016]

1. Number of Authorisation and date of issue : **No. WB/T-311/21-22/ dtd. .09.2022**
2. Reference of application (No. and date) : **634914**
3. **M/s Indian Oil Corporation Limited (IOCL) , Bongaigaon Refinery, NH 31C (New NH 27), Dhaligaon, Chirang** is hereby granted an authorisation based on the signed inspection report for Generation, storage and transportation of Hazardous or Other wastes or both.

DETAILS OF AUTHORISATION

Sl. No.	Category of Hazardous Waste as per the Schedules-I, II & III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity (ton/annum)	Mode of Management
1	**Schedule-I, Sl.No. 4.1 :** Oil sludge or emulsion	Generation, Storage & Transportation	7000 MT/Annum	Transportation to authorized actual user/Recyclers/ Disposal agencies/ reprocessing and recovery/Captive treatment,through Bio-remediation as per prescribed norms
2	**Schedule-I, Sl.No. 4.2:** Spent catalyst	Generation, Storage & Transportation	2500 MT/Annum	Transportation to authorized actual user/Recyclers in accordance with HOWM Rules,2016
3	**Schedule-I, Sl.No. 4.3:** Slop Oil	Generation, Storage & Transportation	32000 MT/Annum	Captive Utilization as per prescribed norms.
4	**Schedule-I, Sl.No. 5.1**: Used or spent oil	Generation, Storage & Transportation	20 MT/Annum	Transportation to authorized actual user/Recyclers
5	**Schedule-I, Sl.No. 33.1**:Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	Generation, Storage & Transportation	7000 numbers/Annum	Transportation to authorized actual user/Recyclers

4. **This authorisation shall be in force in force for the period of five years up to 31.03.2027 unless otherwise revoked or withdrawn within this period.**
5. The authorisation is subject to the following general and specific conditions:

A. GENERAL CONDITIONS OF AUTHORISATION:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
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.
4. The agencies should ensure that the barrels are decontaminated before collection in the premises of the occupier / generator equipped with adequate effluent treatment plant.
5. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorization.
6. The person authorised shall implement Emergency Response 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
7. The person authorised shall implement Emergency Response 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

9.0

APPENDIX-A7

Detail of Wastewater treatment and disposal system.

ETP description.pdf

10.0

ANNEXURE-A8

Quarterly Noise Survey Data

(1st April 2024 to 30th September 2024)

HSE (ENVIRONMENT) DEPARTMENT

IOCL- Bongaigaon
Q-1 Noise report 20

IOCL- Bongaigaon
Q-2 Noise report 20

11.0

ANNEXURE-A9

Rain Water Harvesting Data

BGR: Rain Water Harvesting till March 2021

Sl.No.	RWH systems	Area in m^2	Recharging, m^3/Yr	Total Recharging, m^3/Yr	Status
1	Rainwater Harvesting at Mandir Complex Pond	7125	20748	99239.14	In operation
2	Manjeera Guest House	677	1848		
3	Deoshri Guest House	581	1586		
4	Rainwater Harvesting at Parivesh Udyan Pond	5775	16817		
5	Rainwater Harvesting at Eco-Park Pond	20000	58240		
6	Mandir Complex	833	2274	14597	In operation
7	Manas Guest House	639	1744		
8	BGR HS School, BGR Township	1361	3716		
9	DPS Block-I	704	1922		
10	DPS Block-II	1810	4941		
11	BGR Canteen, CISF Office & Scooter Shed	3134	8555	8556	In operation
12	Champa Club (Officers Club)	1100	3003	10046	In operation
13	Refinery Club cum Community Centre	2580	7043		
14	Employee Union Conference Hall Building	275	751	3003	In operation
15	CISF Quarter Guards Building	825	2252		
16	CISF Conference Hall & Barack	1050	2867	4541	In operation
17	BGR Community Centre	650	1775		
18	Foot Ball Stadium gallery	988	2697	2597	In operation
19	Vollyball Stadium Gallery				
20	Control Room – BS-VI	1372.5	3747	3747	Commissioned in June'2020
21	Substation – BS-VI	942	2572	2572	
22	Admin. Block-B	1730	4723	4723	Commissioned in Aug'2020
23	Temple Complex(NEW)	1015.1	2771	2771	Commissioned in March'2021
	TOTAL	55,167	156593	156592	

16/12/21
CM(HSE)

MKarmakar SM(HSE)

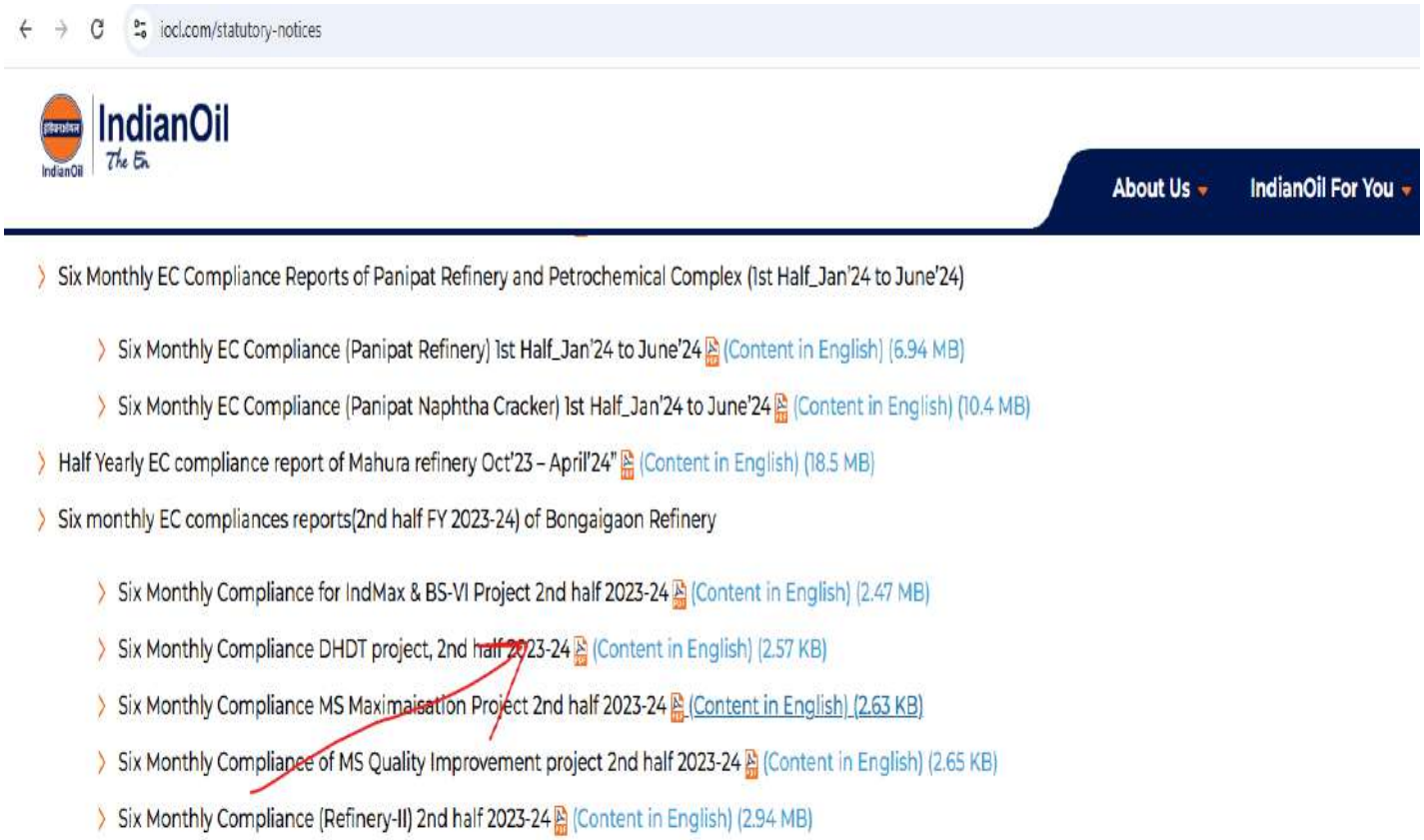
O(HSE)

12.0

ANNEXURE-A10

Screen Shot of IOCL Website upload of report

Link: https://iocl.com/statutory-notices



SM (HSE) O(HSE)

13.0

ANNEXURE-A11

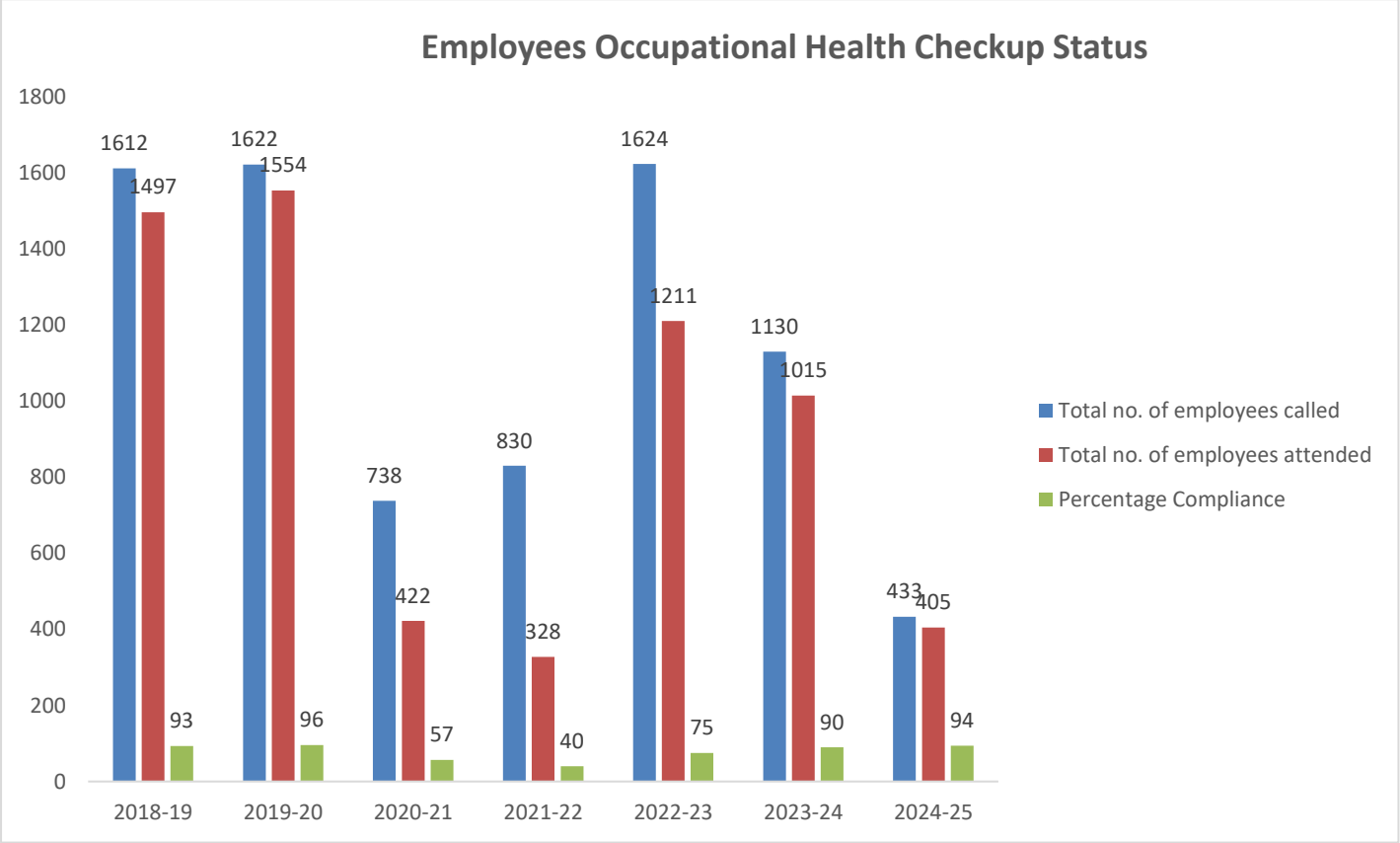
NABL certificate of QC Lab of Bongaigaon Refinery

NABL Certificate
TC-6027.pdf (1).pdf

14.0

Appendix-A12

Employees Occupational Heath Checkup Status

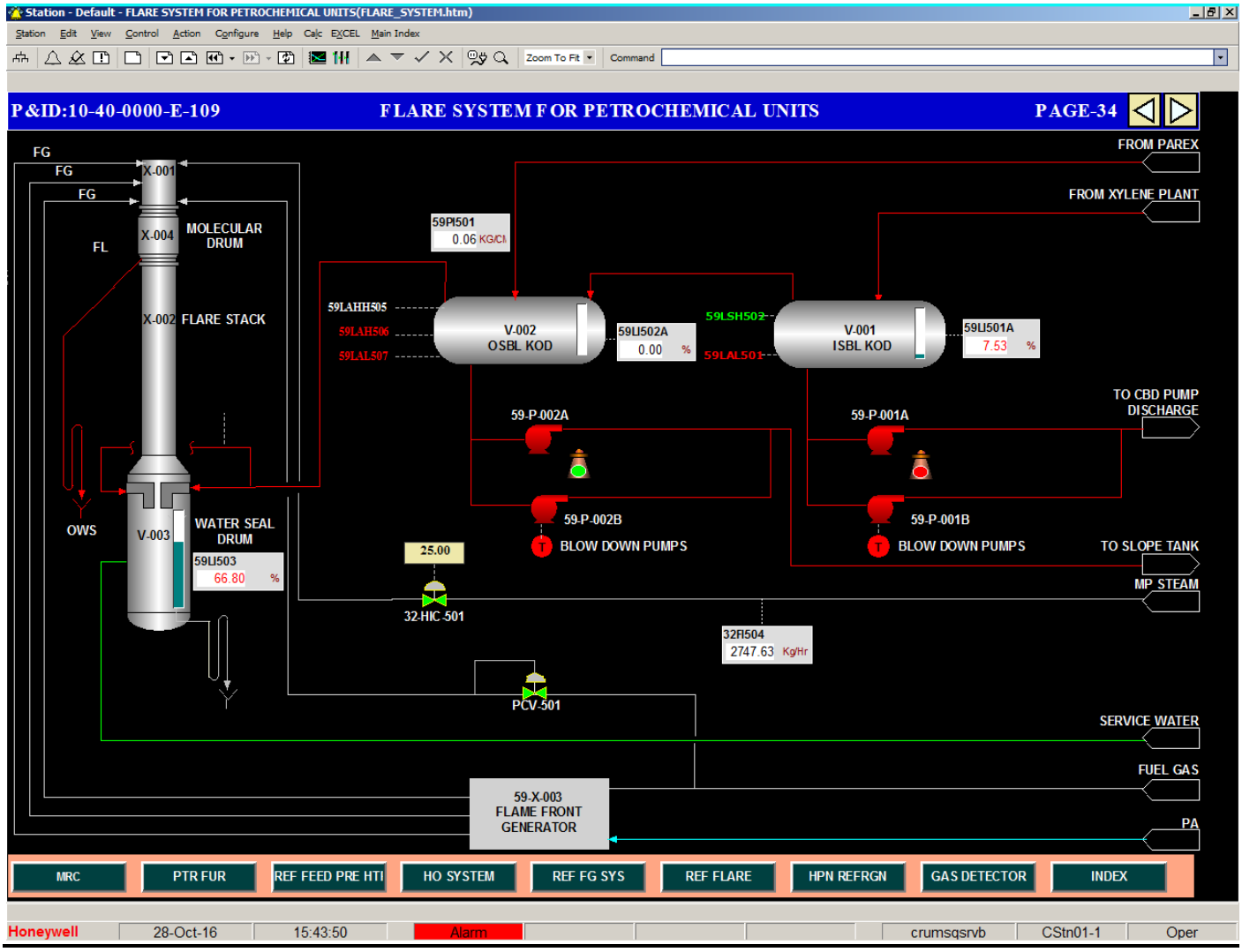


Note: Employees occupational health checkup program affected during the year 2020-22, due to the COVID-2019 pandemic situation.

15.0

Appendix-A13

Flare system.



THANKS

SM (HSE)

(HSE)