

इंडियन ऑयल कॉर्पोरेशन लिमिटेड

बोंगाइगाँव रिफाइनरी

आकाशगंगा - 783 385

जिला : चिरांग (असम)

Indian Oil Corporation Limited

Bongaigaon Refinery

PO. : Dhaligaon, Dist. : Chirang, Assam-783385

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रिफाइनरी प्रभाग

Refineries Division

REF: IOC/BGR/HSE/ECR-REP/MoEF&CC/2024-25/02

Date: 30/06/25

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: 2nd Half Yearly Report for the period (1st Oct'24 to 31st March'25) for
"Refinery Expansion, De-bottlenecking of Reformer and LPG facility"

Reference: Refinery Expansion, De-bottlenecking of Reformer and LPG facility Vide
MoEF&CC letter No. J.11011/24/90-IA-II dated 03/06/1991

Dear Sir,

With reference to the above, we are enclosing the Six Monthly EC compliance Report for the period of 1st October'24 to 31st March'25 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 "Refinery Expansion, De-bottlenecking of Reformer and LPG facility" Project.

Thanking you,

Yours faithfully,

(Biman Gogoi)

DGM (HSE)

O/P: 03664-25-3302

M-9435122647

Copy to:

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

रजिस्टर्ड ऑफिस : जी-९, अली यावर जंग मार्ट, बान्द्रा (पूर्व) मुम्बई - 400 051

रिफाइनरी डिविजन : हैड क्वार्टर : इंडियन ऑयल भवन, स्कोप कॉलेक्स, कोर - 2, 7, इंस्टिट्युशनल एरिया, लोधी रोड, नई दिल्ली - 110 003

Regd. Office : G-9, Ali Yavar Jung Marg, Bandra (East) Mumbai-400 051

Refineries Division : Head Quarter : IndianOil Bhawan, SCOPE Complex, Core-2, 7, Institutional Area, Lodhi Road, New Delhi - 110 003

“Half Yearly Report for “Refinery Expansion Project”
(1st October 2024 to 31st March 2025)

**Environmental Clearance for
Refinery Expansion, De-bottlenecking of Reformer and LPG facility
Vide MoEF&CC letter No. J.11011/24/90-IA-II dated 03/06/1991**



Plant Commissioning Dates:

1. Crude Distillation Unit – II: 09.05.1995
2. Delayed Coker Unit – II: 06.03.1996

Submitted by:

**Indian Oil Corporation Limited
Bongaigaon Refinery
P.O Dhaligaon, District-Chirang, Assam**

(P.C.M/MS)

INDEX

Sl. No	Conditions	Status
1.	The EC letter MoEF's letter No. J.11011/24/90-IA-II Dt. 03/06/1991	Scanned Copy Enclosed
2.	General & Specific Conditions Compliance status of Refinery Expansion Project	Annexure- A
3.	Six monthly Stack Monitoring/ Air Quality Data	Furnished in Appendix-A1
4.	Six monthly Effluent discharged Quantity, Quality	Furnished in Appendix-A2
5.	Tree Plantation Data	Furnished in Appendix-A3
6.	Fugitive Emission Data	Furnished in Appendix-A4
7.	Annual return of Hazardous Waste	Furnished in Appendix-A5(a)
8.	Authorization from PCBA under Hazardous Waste (Management, Handling and Transboundary Movement Rules 2008)	Furnished in Appendix-A5(b)
9.	Details of Wastewater treatment and disposal system	Furnished in Appendix-A6
10.	Quarterly Noise Survey Report.	Furnished in Appendix-A7
11.	Status of Rainwater Harvesting	Furnished in Appendix-A8
12.	Screen Shot of IOCL Website upload of report	Furnished in Appendix-A9
13.	NABL certificate of QC Lab of Bongaigaon Refinery	Furnished in Appendix-A10
14.	Employees Occupational Health Checkup Status	Furnished in Appendix-A11
15.	Flare system.	Furnished in Appendix-A12

G. CMCHSE

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(A)

No. J.11011/24/90-IA-II
Government of India
Ministry of Environment & Forests
Department of Environment, Forests & Wildlife
(IA-II Division)

MIN ENV & FORESTS
RC. AIR. (H. 110003)
(F.M. 21/6/91)
Rec'd on 21/6/91
Diary No. 115

Paryavaran Bhawan
CGO Complex,
Lodi Road,
New Delhi-110003

May-29, 1991.
Time 3

OFFICE MEMORANDUM

Subject:- Refinery expansion Debottlenecking the reformer and
LPG facilities:-Bongaigaon Refineries and Petrochemicals
Ltd:- Environmental Clearance.

C. D.

21/6/91

The undersigned is directed to refer to the above proposal and to state that the environmental aspects of the project have been examined and the project is cleared from environmental angle subject to the following stipulations:

- i. The project authority must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government and a comprehensive EIA will be submitted within 18 months.
- ii. Any expansion of the plant, either with the existing product mix or new products can be taken up only with the prior approval of this Ministry.
- iii. The gaseous emissions from various process units should conform to the standard prescribed by the concerned authorities, from time to time. At no time the emission level should go beyond the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be put out of operation immediately and should not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. Adequate number (a minimum of 5) of air quality monitoring stations should be set up in the downwind direction as well as where maximum ground level concentration is anticipated. Also, stack emission should be monitored by setting up of automatic stack monitoring unit. The data on stack emission should be submitted to State Pollution Control Board once in three months and to this Ministry once in six months along with the statistical analysis. The air quality monitoring station should be selected on the basis of modelling exercise to represent the short-term ground level concentration.

contd....2/-

G. C MCHSE)

xv. A separate environmental management cell with sufficiently qualified people to carry out various functions should be set up under the control of senior executive who will report directly to the head of the organisation.

xvi. The funds ear-marked for the environmental protection measures should not be diverted for other purposes and year-wise expenditure should be reported to this Ministry.

ii. The Ministry or any other competent authority may stipulate any further condition after reviewing the comprehensive implementation report or any other reports prepared by project authorities.

iii. The Ministry may revoke clearance if implementation of conditions is not satisfactory.

iv. The above condition will be enforced inculcating along with the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986 along with their amendments.

R. Anandakumar
(R. ANANDAKUMAR)
SCIENTIST 'SF'

Secretary,
Dept. of Petroleum & Natural Gas,
Ministry of Petroleum & Chemicals,
Shastri Bhavan,
New Delhi-110001.

Copy to:-

1. Chairman and Managing Director, Bongaigaon Refineries, and Petrochemicals Ltd, P.O. Dhaligaon, Distt. Bongaigaon, Assam-783 385.
2. Chairman, Assam State Pollution Control Board, Bamuni Maidan, Guwahati-782 021.
3. Chairman, Central Pollution Control Board, Parivesh Bhavan, C.P.D-cum-office Complex, East Arjun Nagar, Shahdara, Delhi-110 030.
4. Chief Conservator of Forests (Central) Regional Office (North East Region) Upland Road, LOITUMKHWA, SHILLONG-793 012.
5. Adviser (Energy) Planning Commission Yojana Bhavan, New Delhi.
6. Adviser (PWD) Planning Commission, Yojana Bhavan, New Delhi.
7. Joint Secretary (Plan Finance), Deptt. of Expenditure North Block, New Delhi.
8. Guard file.

G. C. M. (HSE)

2.0 ANNEXURE-A

Sl. No.	General Conditions	Compliance Status
1	The project authority must strictly adhere to the stipulations made by Assam State Pollution Control Board and State Government and the comprehensive EIA will be submitted within 18 months.	All stipulations by the Pollution Control Board of Assam are strictly followed.
2	Any expansion of the plant, either with the existing product mix or new products, can be taken up only with the prior approval of this Ministry.	EC was granted by MoEF&CC to BGR for INDMAX & BS-VI projects vide letter F. no. J11011/48/2016-IA-II (I), Dated 19 th Apr'2017. The project is implemented and commissioned with enhanced expansion of Crude processing from 2.35 to 2.7 MMTPA, other associated projects like DHDT enhanced capacity from 1.2 to 1.8 MMTPA, HGU from 25 KTPA to 30 KTPA, revamp of CRU-MSQ and SRU. All the units of the Projects are commissioned successfully.
3	The gases emission from the various process units should conform to the standard prescribed by the concerned authorities, from time to time. At no time should the emission level go beyond the stipulated standards.	<ol style="list-style-type: none"> 1. The process units are designed to meet the prescribed standards. 2. Units would be put out of operation in the event of any malfunctioning of pollution control practice at BGR. 3. Please Refer Appendix-A1.
4	Adequate number of (a minimum of 5) Air quality monitoring stations should be set up in the down wind direction as well as where maximum ground level concentration is anticipated. Also, stack emission should be monitored by setting of automatic stack monitoring unit.	<ol style="list-style-type: none"> 1. Six Ambient Air Quality Monitoring Stations operate around the complex at BGR including one continuous analyzer set up for compilation of Ambient Air Quality data. 2. All these stations are selected based on modeling exercise representing short-term maximum ground level concentration. 3. All major stacks in BGR are monitored with continuous On-line monitoring analyzers installed for SO₂, NO_x, PM & CO Analysis in all stacks as per CPCB guidelines and connected to CPCB & SPCB servers for real time data.
5	There should be no change in the stack design without the approval of State Pollution Control Board. Alternative Pollution Control system and design (steam injection system in the stack) should be provided to take care of the excess emission due to failure in any system of the plant.	<ol style="list-style-type: none"> 1. No changes are made to the stack design. 2. Steam injection facility is provided in the oil burners of the furnaces.
6	The ambient Air Quality Data for winter season (November 1990 to January 1991) should be presented by June 1991.	These data were submitted as desired during 1991.
7	The project authority should recycle the waste to the maximum extent. Recycle plan should be submitted within one year. This should include use of recycled water for green belt development plan.	BGR has installed Tertiary Treatment Plant to facilitate reuse of treated effluent inside the complex as Cooling Water & Firewater Make up, unit housekeeping and watering in plantation areas (Horticulture)inside. No effluent is discharged outside the complex.

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Sl. No.	General Conditions	Compliance Status
8	Adequate number of effluent quality monitoring stations must be set in consultation with State Pollution Control Board and the effluents monitored and should be statistically analysed and the report sent to this Ministry once in six month and State Pollution Control Board every three months.	<ol style="list-style-type: none"> Three joint sampling points for effluent are fixed in and around BGR by Pollution Control Board, Assam (PCBA) to monitor the discharge effluent quality. Joint sampling by Pollution Control Board, Assam is conducted once a month. The samples are tested at PCBA Laboratory. Besides, samples are tested at BGR Laboratory as per consent condition and daily to track effluent quality. All samples conform to the prescribed Revised Effluent Standards 2008 (Pl. Refer Appendix-A2).
9	The project authority should prepare a well-designed scheme for solid waste disposal generated during various process operations or in the treatment plant. The plan for disposal should be submitted to the ministry within six months.	<ol style="list-style-type: none"> All solid waste generated during various process operations or in the treatment plant are handled and disposed of as per procedures laid down in an environmentally friendly manner. All hazardous wastes are handled and disposed of as per provisions of the Hazardous and other Waste (Management & Trans boundary Movement) Rules, 2016 and as per directions of statutory agencies. As a measure of Hazardous Waste Management, third parties are engaged in processing of the oily sludge & recovery of oil from the oily sludge stored in the sludge lagoon. During FY 2024-25, 4464MT MT of oily sludge has been processed by mechanized processing. Melting pit facility is also available for recovering oil from oily sludge. A confined bio-remediation plant of 35 m³ capacity was set up in collaboration with IOCL R&D in 2017 for treatment of residual oily sludge All statutory returns are sent to PCBA as per the provision of the rule.
10	A detailed risk analysis of LPG storage facility should be carried out and a report be submitted to the ministry within six months.	<p>Risk Analysis for LPG Storage was prepared and submitted to MoEF in 1992.</p> <p>Environment Clearance from MoEF & CC obtained for mounted bullet as per M.B. Lal committee Report.</p> <p>All the units of the project are commissioned.</p>
11	A detailed risk analysis based on maximum credible accident analysis should be done once the process design and layout frozen. Based on this, a disaster management plan has to be prepared and after approval of the nodal agency, should be submitted to this ministry within 6 months.	<p>Detailed risk analysis was prepared, and the report was submitted to MoEF&CC.</p> <ol style="list-style-type: none"> On site-emergency plan exists and mock drills are conducted from time to time to verify effectiveness of the plan as per OISD guidelines. Offsite-emergency plan approved by District authorities exists. Mock drills are conducted from time to time to verify effectiveness of the plan in co-ordination with district authorities. <p>Onsite & offsite Mock drills for FY 24-25 (Q-1, Q-2, Q-3 & Q-4) conducted on 22/06/24, 25/09/24, 31/12/2024 & 07/03/2025 respectively.</p>

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Sl. No.	General Conditions	Compliance Status
12	Detailed green belt development plan should be submitted within a year.	The Green belt development plan was a part of the comprehensive EIA and the same is already submitted to MOEF. The plan was implemented and continued.
13	A report on occupational health of the workers with the incidents of diseases in the past five years as per record available with the BRPL and their correlation with type of occupational health problem the environment may cause may be submitted within six months.	The report is already submitted as desired. The latest data is attached in Appendix A-11.
14	The project must setup a laboratory facility for collection and analysis sampling under the supervision of competent technical personal that will directly report to chief executive.	A well-equipped Laboratory exists in the complex. The Laboratory of BGR is accredited by NABL. Refer Appendix-A10.
15	A separate environmental management cell with full-fledged laboratory facilities to carry out various management and monitoring functions should be set up under the control of Senior Executive.	BGR is having a separate environmental management cell of HSE department and full-fledged laboratory to carry-out environment management and monitoring functions.
16	The funds earmarked for the environmental protection measures should not be diverted for any other purpose and year-wise expenditure should be reported to this Ministry and SPCB.	The funds earmarked for the environmental projects are used for this purpose only and not diverted or spent for other purposes. CER expenditure against INDMAX & BS-VI Units for the financial year 2021-22: INR 272.56 lakhs, for FY 2022-23 INR 430 lakhs, for FY 2023-24: INR 260.40 lakhs and for FY 2024-25: INR 520.89 lakhs.
17	The Ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities.	--
18	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	--
19	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	--

G. (MLHSE)

3.0 APPENDIX -A1

STACK MONITORING DATA: (1st October 2024 to 31st March 2025)

A. SO₂ Emission (mg/Nm³)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing Refineries For F.O. = 1700 For F.G. = 50	4.12	36.3	376.06
DCU-I		9.0	19.32	32.0
CDU-II		2.92	5.21	21.20
DCU-II		0.27	5.97	45.81
CPP		0.0	10.24	27.68
HOT-1		0.12	104.58	283.75
Reformer		34.96	35.00	35.06
HOT-2		Shut Down		
Isomerization		0.06	4.73	17.85
DHDT		7.0	8.41	10.15
HGU	For New Refineries For F.O. = 850 For F.G. = 50	6.05	6.97	11.70
NEW SRU		312.0	312.0	312.0
GTG		0.01	8.28	14.38
IGHDS		2.02	6.96	129.30
NHT		6.98	7.0	7.05
INDMAX		1.99	16.26	31.09

B. NOx Emission (mg/Nm³)

Stacks	Emission Std.	Observed value		
		Min	Avg.	Max
CDU-I	For Existing Refineries For F.O. = 450 For F.G. = 350	3.2	18.63	38.62
DCU-I		5.01	21.78	39.03
CDU-II		6.91	30.63	199.18
DCU-II		13.28	13.54	13.68
CPP		33.48	33.50	33.52
HOT-1		0.81	79.84	114.62
Reformer		33.99	34.65	37.19
HOT-2		Shut Down		
Isomerization		5.26	7.90	10.22
DHDT		4.39	5.66	7.25
HGU	For New Refineries For F.O. = 350 For F.G. = 250	6.72	24.77	67.22
NEW SRU		N/A		
GTG		15.99	16.02	16.31
IGHDS		17.97	38.44	76.54
NHT		NR	NR	NR
INDMAX		13.54	22.26	22.39

G. CM(HSE)

C. PM Emission (mg/Nm³)

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	0.9	4.4	17.3
DCU-I		0.7	0.7	0.7
CDU-II		0.9	1.0	1.0
DCU-II		8.1	8.1	8.1
CPP		1.4	1.6	1.7
HO-1		1.6	9.1	24.7
Reformer		2.7	2.7	2.7
HO-2		Shut Down		
Isomerisation		1.3	1.3	1.3
DHDT		2.3	2.3	2.3
HGU	For Existing Refineries For F.O. = 100 For F.G. = 10 For New Refineries For F.O. = 50 For F.G. = 5	8.8	22.0	33.8
NEW SRU		7.4	7.4	7.4
GTG		0.2	10.0	14.0
IGHDS		0.8	0.9	0.9
NHT		7.1	8.0	8.2
INDMAX		0.0	12.7	27.0

D. CO Emission (mg/Nm³)

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	9.3	10	73.7
DCU-I		1.8	3.0	4.3
CDU-II		0	10.5	70.8
DCU-II		2.0	2.0	2.0
CPP		18.0	18.0	18.0
HO-1		14.9	18.0	157.1
Reformer		12.5	13.0	14.3
HO-2		Shut Down		
Isomerisation		12.0	15.8	20.2
DHDT		2.7	6.3	10.8
HGU	For Existing Refineries For F.O. = 200 For F.G. = 150 For New Refineries For F.O. = 150 For F.G. = 100	9.6	20.1	34.9
NEW SRU		29	29	29
GTG		0.8	4.8	10.7
IGHDS		2.0	3.3	6.6
NHT		18.2	20.1	22.3
INDMAX		0.0	5.2	6.3

G. CMCHSE)

E. Ni + V Emission (mg/Nm³)

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		BDL	BDL	BDL
Isomerisation		Shut Down		
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
(1st October 2024 to 31st March 2025)

	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant	Rural Health Centre	Bartola Rail Gate	Near TW No.7 in Township
1 SO₂ (Std. 50/80 µg/m³)							
Min		0.69	18.9	16.4	21.5	20.7	16.48
Average		1.51	23.61	21.06	27.7	25.46	20.81
Max		7.34	28.50	25.60	34.6	31.8	26.6
No. of observation	Continuous	53	53	53	53	53	53
2 NO₂ (Std. 40/80 µg/m³)							
Min		2.59	24.6	18.8	23.4	22.5	18.5
Average		2.60	30.8	26.2	33.8	32.9	25.3
Max		2.61	35.1	32.3	41.0	39.4	33.2
No. of observation	Continuous	53	53	53	53	53	53
3 PM-10 (Std. 60/100 µg/m³)							
Min		24.18	70.8	68.4	65.4	70.9	46.8
Average		31.30	80.3	79.1	84.7	83.3	61.5
Max		50.25	89.9	87.7	96.4	92.3	86.8
No. of observation	Continuous	53	53	53	53	53	53

G. (CMCHSE)

	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant	Rural Health Centre	Bartola Rail Gate	Near TW No.7 in Township
4	PM-2.5 (Std. 40/60 $\mu\text{g}/\text{m}^3$)						
	Min	8.87	25.3	23.1	27.2	27.8	21.5
	Average	19.36	30.2	28.1	37.4	32.5	26.2
	Max	41.51	36.8	32.9	43.2	37.8	31.2
	No. of observation	Continuous	53	53	53	53	53
5	Ammonia (Std. 100/400 $\mu\text{g}/\text{m}^3$)						
	Min	0.69	27.4	20.9	27.1	28.8	21.2
	Average	1.51	33.2	29.8	38.0	35.7	29.2
	Max	7.34	42.2	38.8	48.2	45.6	38.4
	No. of observation	Continuous	53	53	53	53	53
6	Pb (Std. 0.5/1.0 $\mu\text{g}/\text{m}^3$)						
	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/ 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
8	Ni (Std. 20 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
9	CO (Std. 2/4 mg/ m^3)						
	Min	0.99	1.02	0.95	0.25	1.05	0.98
	Average	1.05	1.23	1.16	1.33	1.27	1.17
	Max	1.33	1.39	1.29	1.64	1.47	1.39
	No. of observation	Continuous	53	53	53	53	53

G. CMCHSE

	Station	Continuous Monitoring Station	Near Tube Well No.14	Near LPG Bottling plant		Rural Health Centre	Bartola Rail Gate	Near TW No.7 in Township				
10	Ozone (Std.100/180 $\mu\text{g}/\text{m}^3$ for 8 hrs/1 hr)											
	Min	34.96	18.5	15.4	19.4	20.2	14.2					
	Average	35.03	23.7	21.1	27.9	25.8	20.1					
	Max	35.09	31.2	25.5	34.1	31.5	31.2					
	No. of observation	Continuous	53	53	53	53	53	53				
11	Benzene (Std. 5 $\mu\text{g}/\text{m}^3$)											
	Min	0.55	BDL	BDL	BDL	BDL	BDL	BDL				
	Average	0.65	BDL	BDL	BDL	BDL	BDL	BDL				
	Max	0.69	BDL	BDL	BDL	BDL	BDL	BDL				
	No. of observation	Continuous	53	53	53	53	53	53				
12	Benzo (a) Pyrene (Std. 1 ng/m^3)											
	Min		BDL	BDL	BDL	BDL	BDL	BDL				
	Average		BDL	BDL	BDL	BDL	BDL	BDL				
	Max		BDL	BDL	BDL	BDL	BDL	BDL				
	No. of observation		53	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 ₆ H ₆	O ₃
Unit	$\mu\text{g}/\text{m}^3$						ng/m^3			mg/m ³	$\mu\text{g}/\text{m}^3$	
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	0.69	2.59	24.18	8.87	1.69	BDL	BDL	BDL	BDL	0.25	0.55	14.20
Average	20.03	25.28	70.03	28.95	27.94	BDL	BDL	BDL	BDL	1.20	0.65	25.58
Max	34.60	41.0	96.40	43.20	48.20	BDL	BDL	BDL	BDL	1.64	0.69	35.09

G. eMCHSE)

4.0 APPENDIX-A2

Effluent Discharged (in m³/hr): (1st October 2024 to 31st March 2025)

A	Industrial Effluent, m³/hr	108.31
B	Domestic Effluent from BGR Township, m³/hr	66.69
C	Total Effluent Treated (A + B), m³/hr	175
D	Treated Effluent Reused, m³/hr	175
E	Effluent Discharged, m³/hr	0.00
F	m³ of Effluent discharged for 1000 MT of Crude processed	0.00

**A. Treated Effluent Quality
(1st October 2024 to 31st March 2025)**

Sl. No	Parameter	Std,2008	Min	Avg.	Max
1	pH value	6.0 - 8.5	6.5	7.2	8.5
2	Oil and Grease, mg/l	5.0	1.6	3.5	4.9
3	Bio-Chemical Oxygen Demand (3 Day at 27°C), mg/l	15.0	4	10.3	14.0
4	Chemical Oxygen Demand (COD), mg/l	125.0	30	64.8	117.1
5	Suspended Solids, mg/l	20.0	3.4	10.3	18.8
6	Phenolic compounds (as C ₆ H ₅ OH), mg/l	0.35	0.1	0.2	0.4
7	Sulphide (as S), mg/l	0.50	0.0	0.3	0.5
8	CN, mg/l	0.20	0	0	0
9	Ammonia as N, mg/l	15.0	1.6	2.5	3.2
10	TKN, mg/l	40.0	2.8	3.7	4.6
11	P, mg/l	3.0	0.8	0.9	1.0
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	0.2	0.3	0.4
17	Ni, mg/l	1.0		BDL	
18	Cu, mg/l	1.0	0.0	0.1	0.2
19	V, mg/l	0.20	-	BDL	-
20	Benzene, mg/l	0.10	-	BDL	-
21	Benzo (a) pyrene, mg/l	0.20	-	BDL	-

B. Final Outlet (From the Complex) Storm Water channel Quality
(1st October 2024 to 31st March 2025)

Sl. No.	Parameter	Std 2008	Min	Avg.	Max
1	pH value	6.0 - 8.5	7.29	7.39	7.55
2	Oil and Grease, mg/l	5.0	2.0	2.67	4.00
3	Bio-Chemical Oxygen Demand (3 Day at 27°C), mg/l	15.0	12.0	13.33	14.0
4	Chemical Oxygen Demand (COD), mg/l	125.0	60.0	72.33	80.0
5	Suspended Solids, mg/l	20.0	BDL	BDL	BDL
6	Phenolic compounds (as C ₆ H ₅ OH), mg/l	0.35	BDL	BDL	BDL
7	Sulphide (as S), mg/l	0.50	BDL	BDL	BDL
8	CN, mg/l	0.20	BDL	BDL	BDL
9	Ammonia as N, mg/l	15.0	2.40	3.10	3.90
10	TKN, mg/l	40.0	3.40	4.30	5.80
11	P, mg/l	3.0	1.0	1.10	1.30
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	0.20	0.35	0.56
17	Ni, mg/l	1.0		BDL	
18	Cu, mg/l	1.0	0.05	0.14	0.24
19	V, mg/l	0.20	-	BDL	-
20	Benzene, mg/l	0.10	-	BDL	-
21	Benzo (a) pyrene, mg/l	0.20	-	BDL	-

6. CM(HSE)

5.0 APPENDIX-A3: Tree Plantation (1st October 2024 to 31st March 2025)

The entire area inside BGR covered with greenery through massive plantation activities. Through massive plantation work and by giving protection to natural forest growth inside 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 of bamboos in 1150 no. bamboo culms and trees, planted by BGR during 2003 to 2012.

To comply INDMAX & BS-VI EC conditions, BGR planted 29600 No.s of saplings in the FY 2017-18, 30,062 No.s in FY 2018-19, 14340 No.s in FY 2019-20, 25606 No.s in FY 2020-21, 1,00,000 No.s in FY 2021-22, 26710 No.s. in FY 2022-23, 100630 No.s in FY-2023-24 while in FY 2024-25, BGR planted 107530 No.s of tree saplings in and around the complex.

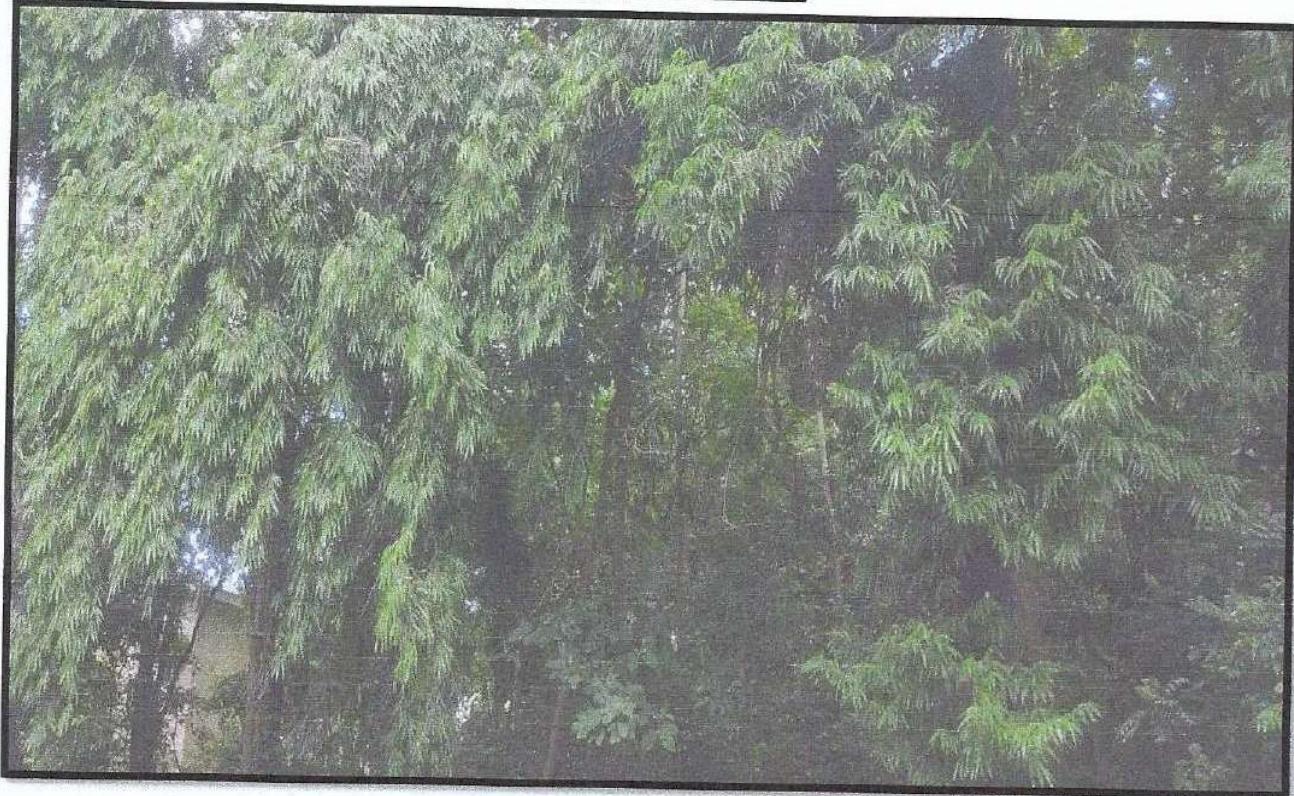
Tree Plantation 2017-18



**Birhangaon State Dispensary Plantation 10000 No. s in Aug'2017 and 5375 No. s (2nd Phase in August,2019),
Sapling Planted by Miyawaki Method. Growth in March 2025.**

(G. C MCHSE)

Tree Plantation 2018-19



BGR TOWNSHIP PLANTATION, Planted Van Mahotsav 2018, Growth in March 2025.

Tree Plantation 2019-20



North Bongaigaon High School, 5250 Sapling Planted by Miyawaki Method in the month of September,2019, Growth in March 2025.

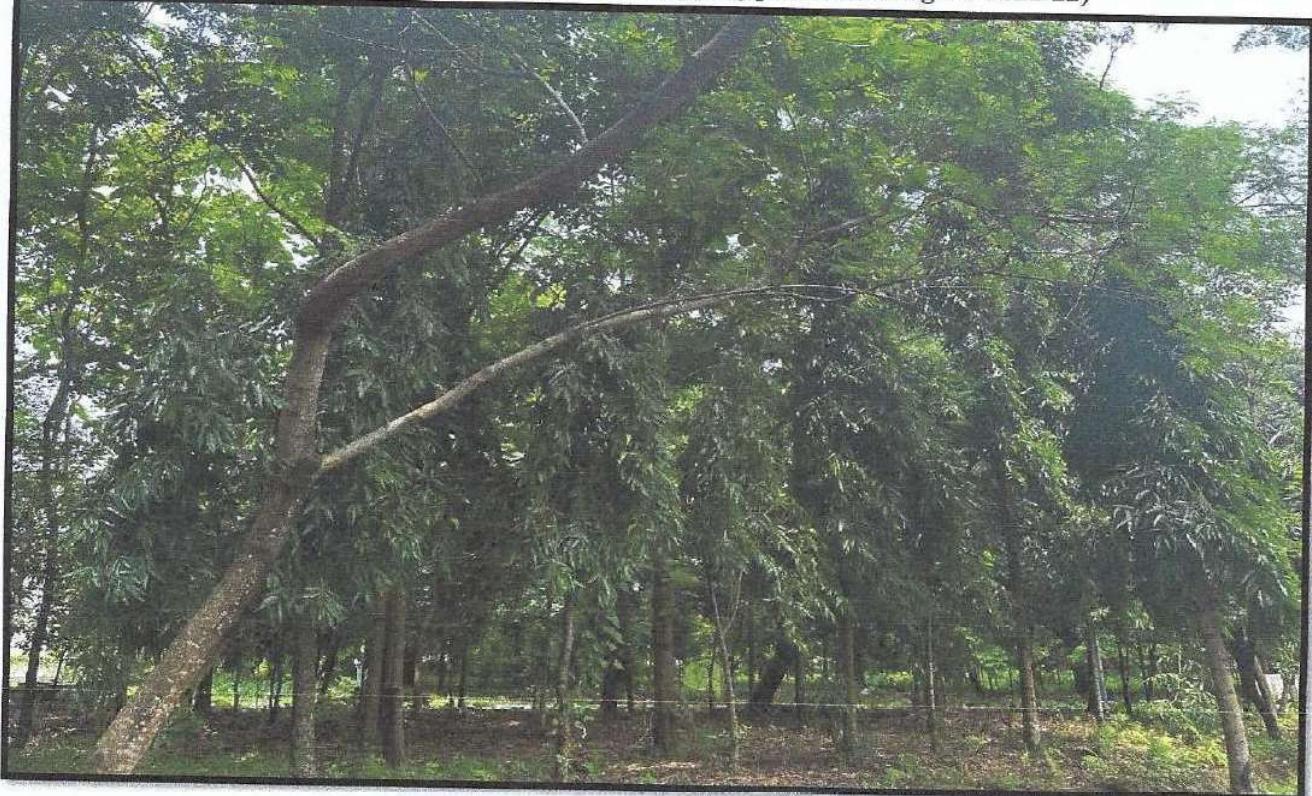
G. CM(HSE)

Tree Plantation 2020-21



4810 No.s of sapling Planted in the month of August'2020 at Hatipota Brahma Mandir, Growth in March 2025.

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



Planted on WED'2021, in BGR Township, Growth in March 2025.

G. CMCHSE)

Tree Plantation 2021-22



Planted on Aug,2021, in the complex, North side of INDMAX & BS-VI, Growth in March 2025.

Tree Plantation 2021-22



Planted on Aug,2021, in the complex, North side of INDMAX & BS-VI, Growth in March 2025.

G. CMCHSE)

Tree Plantation 2022-23



Planted on WED'2022, in BGR Township, Growth in March 2025.

(G. e MCHSE)

रिफाइनरी प्रभाग
Refineries Division

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-



BGR/HSE/HW-RETURN/Fy 24-25/ 01

Date: 30.06.25

To

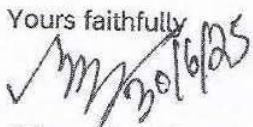
The Member Secretary,
Pollution Control Board, Assam
Bamunimaidam
Guwahati – 781021

Subject: Regarding Submission of Annual Hazardous Waste Return for Fy 2024-25 in Form-4 along with filled in Format A, B & C as per Hazardous and Other Waste (Management and Transboundary Movement) Rules'2016

Dear Sir,

Please find enclosed herewith the copy of Annual Hazardous Waste Return for Fy 2024-25 in Form-4 along with the filled in Format A,B,C as per Hazardous and Other Waste (Management and Transboundary Movement) Rules'2016 for the period from 1st April'24 to 31st March'25.

Thanking You,

Yours faithfully


(Biman Gogoi)

Dy. General Manager (HSE)
IOCL Bongaigaon Refinery
Ph- 03664 25 3302

Copy to:

1. Zonal Officer, Central Pollution Control Board,
Eastern Zonal Office, 'TUM -SIR', Lower Motinagar
Near Fire Brigade H.Q
Shillong—793014
2. The Regional Executive Engineer
Regional Laboratory cum office
Pollution Control Board, Assam
Ratnawali Heights (1st floor)
(Opposite Birjhora HS School)

रजिस्टर्ड ऑफिस : जी-९, अली यावर जांग मार्ग, बांद्रा (पश्च) मुम्बई - 400 051
रिफाइनरी डिविजन : हेड क्वार्टर : इंडियन ऑयल भवन, स्कोप कंप्लेक्स, कोर - 2, 7, इस्टेट्टुशनल एरिया, लोधी रोड, नई दिल्ली - 110 003
Regd. Office : G-9, Ali Yavar Jung Marg, Bandra (East) Mumbai-400 051

Refineries Division : Head Quarter : IndianOil Bhavan, SCOPE Complex, Core-2, 7, Institutional Area, Lodhi Road, New Delhi - 110 003

G.
C M (HSE)

7.0 APPENDIX-A5(a): Annual return of hazardous waste (2024-25)



HW Return FY
2024-25.pdf

Q CM(HSE)

**8.0 APPENDIX-A5(b): Authorization from PCBA for Hazardous Waste (Management and
Transboundary Movement) Rules 2016**
No. WB/BONG/T-748/19-20/109

(F. e MCHSE)



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



No. WB/T-311/21-22/ 252

Dated Guwahati the 08/09/2022

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 HWM Rules, 2016
3	Schedule-I, Sl.No. 4.3: Slag 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

27/08/2022

(A. C MCHSE)



The person authorised 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".

9. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
10. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
11. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
12. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
13. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
14. An application for the renewal of an authorisation shall be made as laid down under these Rules.
15. 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.
16. Annual return shall be filed by June 30th for the period ensuing 31st March of the year.

B. SPECIFIC CONDITIONS:

1. The unit shall maintain the records of Hazardous & Other Wastes in Form-3 under provision of Rules 8(5), 13(7), 14(8), 16(6) & 20(1).
2. The unit shall provide the Transporter with the relevant information in Form-9 regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.
3. The unit shall submit Annual Returns in Form-4 to State Pollution Control Board by 30th June of every year for the preceding period April to March.
4. The unit shall prepare 5 (six) copies of the manifest in Form-10 as per Rules-19(1) for every transit of consignment of hazardous Waste under this authorization.
5. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forests & Climate Change, GOI, New-Delhi & Central Pollution Control Board, Delhi shall be complied.
6. The unit shall submit an Environmental Statement for the financial year ending on 31st March, in Form-V of the Environment (Protection) Rules, 1986 before 30th September every year.
7. Any occupier handling hazardous or other wastes and operator of the treatment, storage and disposal facility shall ensure that the hazardous and other wastes are packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time. The labelling shall be done as per Form 8.
8. The unit shall submit the report on any accident occurs at their facility immediately to the state Pollution Control Board, in Form-11 of the Hazardous and Other Wastes (Management, & Transboundary Movement) Rules, 2016.
9. The transport of the hazardous and other waste shall be in accordance with the provisions of Rule 18 of Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
10. The unit shall install a display board in the prescribed format in accordance with PCBA notification vide. WB/T-237/ 19-20/95 dated 17.08.2020 and regularly update the same.

(Shantanu Kr. Dutta)
Member Secretary

Memo No. WB/T-311/21-22/ 252-A

Dated Guwahati the, 08.09. September, 2022

Copy to:

M/S Indian Oil Corporation Limited (IOCL), Bongaigaon Refinery, NH 31C (New NH 27), Dhaligaon, Chirang (Assam) for information & necessary action.

Mr. Kr. Dutta
(Shantanu Kr. Dutta)
Member Secretary

A. CMHSE

9.0 APPENDIX-A6: Detail of Wastewater treatment and disposal system.



ETP Description.pdf

(A. eM(HSE))

10.0 APPENDIX-A7: Quarterly Noise Survey Data (1stOctober, 2024 to 31st March 2025)



IOCL Noise Report
Q-4.pdf



IOCL Noise Report
Q-3.pdf

6. c M(HSE)

11.0 APPENDIX-A8: Rainwater Harvesting Data

Sl. No.	Name of RWH Site location	Nos. of RHW system	Area (In m ²)	Estimated approximate ground water recharge potential volume (m ³ /year) based on avg. annual rainfall MD data for the last 10 yrs
A	At Township area			
1	Manjeera GH	1	677	1956.53
2	Deosri GH	4	581	1679.09
3	Manas Guest House	2	639	1846.71
4	BGR HS School, BGR	2	1361	3933.29
5(A)	DPS Block-I (Old)	1	704	2034.56
5(A)	DPS Block-I (New)	2	808.75	2337.2875
5(B)	DPS Block-II	3	1810	5230.9
6	Champa Club (Officers Club)	2	1100	3179
7	Refinery Club cum Community Centre	3	2580	7456.2
8	Employee Union Conference Hall Building	1	275	794.75
9	CISF Office	2	825	2384.25
10	CISF Barrack	4	1050	3034.5
11	BGR Community Centre	2	650	1878.5
12	Sports complex (Football and volleyball Stadium Gallery)	2	988	2855.32
13	Rainwater Harvesting at Mandir Complex Pond	1	7125	20591.25
14	Mandir Complex	1	833	2407.37
15	Temple Complex (NEW)	1	10151	29336.39
16	Cooperative Store/Shopping Complex (Newly constructed in Oct'24))	1	210	606.9
17	BGR Hospital (Newly constructed in Oct'24)	1	736	2127.04
B	At Refinery area			
18	Admin. Block - B Plan	1	1730	4999.7
19	BGR Canteen (Ref.)	2		9057.26
20	CISF Office & Scooter Shed (Ref.)	1		
21	Cycle Stand (Near time office)	1		
22	Control Room BS-VI - Plant	1	1372.5	3966.525
23	Substation BSVI - Plant	1	942	2722.38
24	Parvesh Udyan pond	1	5775	16689.75
25	Eco Park Pond including natural pond	1	20000	57800
	Total	45	66057.25	190905.5

12.0 APPENDIX-A9: Screenshot of IOCL website wherein past reports have been uploaded

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

Statutory Notices

- ETBPL Capacity Determination compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 30.04.2025. [Content in English] (209 KB)
- ETBPL Capacity Determination compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 30.03.2025. [Content in English] (223 KB)
- HPPL Capacity Declaration compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 01.04.2025. [Content in English] (420 KB)
- ETBPL Capacity Determination compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 28.02.2025. [Content in English] (222 KB)
- DPPL Capacity Declaration compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 28.02.2025. [Content in English] (222 KB)
- ETBPL Capacity Determination compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 31.01.2025. [Content in English] (229 KB)
- Six Monthly EC Compliance Reports of Parleat Refinery and Petrochemical Complex (2nd Half, July 24 to Dec'24).
 - Six Monthly EC Compliance (Parleat Refinery) 2nd Half, July 24 to Dec'24. [Content in English] (19 MB)
 - Six Monthly EC Compliance (Parleat Naptha Cracker) 2nd Half, July 24 to Dec'24. [Content in English] (19.4 MB)
- DPPL Capacity Declaration compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 01.01.2025. [Content in English] (386 KB)
- Half Yearly EC compliance report of Parleat Refinery for Apr'24 - Sep'24. [Content in English] (15 MB)
- Parleat Refinery Six monthly EC Compliance (for the period of Apr 2024 - Sep 2024) of latest projects to MoEF&CC as on 30.11.2024. [Content in English] (220 KB)
 - Gujarat Refinery - Koyali Site : Environment statement for the Financial year 2023-24. [Content in English] (14.96 MB)
 - Gujarat Refinery - Durnad Site : Environment statement for the Financial year 2023-24. [Content in English] (14.4 MB)
- ETBPL Capacity Determination compliance report as per Schedule-I, under regulation 4(2) of the petroleum and Natural Gas Regulatory/Access code for Common carrier or Contract carrier Natural Gas Pipelines) Regulations, 2008 as on 31.12.2024. [Content in English] (279 KB)
 - Six monthly EC compliance reports of IOCL, Bongalganj Refinery (1st half of FY 2024-25).
 - Six Monthly Compliance Report of (Refinery-I) 1st half of 2024-25. [Content in English] (2.47 MB)
 - Six Monthly Compliance Report of DHD Project, 1st half of 2024-25. [Content in English] (2.57 MB)
 - Six Monthly Compliance Report of IndMax & BS-IV Project 1st half of 2024-25. [Content in English] (2.63 MB)
 - Six Monthly Compliance Report of MS Quality Improvement project 1st half of 2024-25. [Content in English] (2.65 MB)
 - Six Monthly Compliance Report of MG Maximisation Project 1st Half of 2024-25. [Content in English] (2.54 MB)

6. CMCHSE

13.0 APPENDIX-A10: NABL certificate of QC Lab of Bongaigaon Refinery



National Accreditation Board for
Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

**INDIAN OIL CORPORATION LIMITED, QC LABORATORY,
BONGAIGAON REFINERY**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

P.O. DHALIGAON, BONGAIGAON, CHIRANG, ASSAM, INDIA

in the field of

TESTING

Certificate Number: TC-6027

Issue Date: 29/04/2024

Valid Until: 28/04/2026

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued
satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: Indian Oil Corporation Limited

Signed for and on behalf of NABL



Signature

N. Venkateswaran
Chief Executive Officer

G. CM(HES)