



इंडियन ऑयल कॉर्पोरेशन लिमिटेड

राष्ट्रीय निर्यातकरी एवं पेट्रोकेमिकल कॉम्प्लेक्स

पानीपत, हरियाणा - 132140

Indian Oil Corporation Limited

Panipat Refinery & Petrochemical Complex

Panipat, Haryana - 132140

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IndianOil

निर्यातकरी प्रभाग
Refineries Division

Ref No: PR/HSE/2023/EC Compliance/2

Date: 15.01.2024

To,
The Additional Director(S),
Ministry of Environment, Forest & Climate Change, Govt. of India,
Regional Office (NR), Bays No. 24-25, Sector 31-A, Dakshin Marg,
Chandigarh- 160047

Subject: Six Monthly Environmental Clearances (EC) Compliance Report (July'2023 to Dec'2023)- Panipat Refinery and Petrochemical Complex.

Dear Sir,

Enclosed please find herewith the Six Monthly Environmental Clearances (ECs) Compliance Report- Panipat Refinery and Petrochemical Complex for the period of Jan'2023 to June'2023 of the MoEF&CC stipulations w.r.t. following EC letters;

1. EC Letter No. J-11011/27/91-IA II(I) dated 16.07.1992 for setting up of a grass root refinery at Karnal district by Indian Oil Corporation Limited.
2. EC Letter No. J.11011/60/2000-IA.II dated 09.04.2001 for Expansion of Panipat Refinery (PREP) from 6 MMTPA to 12 MMTPA.
3. EC Letter No. J.11011/52/2000-IA.II dated 30.04.2001 for Integrated Paraxylene and Purified Terephthalic Acid Projects at Panipat by M/s IOCL.
4. EC Letter No. J.11011/9/2001-IA II (I) dated 06.12.2001 for MS Quality Up-gradation Project at Panipat Refinery by IOCL.
5. EC Letter No. J.11011/52/2000-IA II (I) dated 20.01.2003 for Modification in Plant layout of Paraxylene and Purified Terephthalic Acid (PX/PTA) Project within Panipat Refinery Complex and integrated with Panipat Refinery (PR) and Panipat Refinery Expansion Project (PREP).
6. EC Letter No. J.11011/7/2004-IA II (I) dated 09.08.2004 for expansion of Panipat Refinery (From 12 MMTPA to 15 MMTPA) and Setting up of Indalin+ unit at Panipat Refinery Complex of IOCL, Panipat Refinery Haryana.
7. EC Letter No. J.11011/177/2016-IA II (I) dated 26th March, 2018 for BS-VI Fuel Quality up-gradation and expansion of PX/PTA plant at Panipat Refinery & Petrochemical Complex (PRPC), Panipat (Haryana) by M/s Indian Oil Corporation Limited.
8. EC Letter No. IA-J-11011/43/2018-IA- II (I) dated 13.11.2019 for Installation of 100 KLPD Ligno-Cellulosic 2G Ethanol Plant at Bahol, Block Madiauda, Panipat Refinery road, District Panipat (Haryana) By M/S Indian Oil Corporation Limited.
9. EC Letter No. J-11011/78/2018-IA- II (I) dated 25.11.2019 for setting up 128 KL per day Ethanol Production Plant by M/s Indian Oil Corporation Ltd. (IOCL) in Panipat Refinery & Petrochemical Complex at Panipat, Haryana.
10. EC Letter No. J-11011/177/2016- IA II(I) dated. 03.12.2021 for Panipat Refinery capacity expansion from existing 15 MMTPA to 25 MMTPA within the existing refinery complex.

Thanking you,

Yours faithfully

(P. V. RAMAKRISHNA)

General Manager (HSE)

For and on behalf of IOCL (I.O.C.L.)
Panipat Refinery & Petrochemical Complex

- Copy To: 1. The Regional Directorate, CPCB, Chandigarh
2. The Chairman, HSPCB, Panchkula
3. The Regional Officer, HSPCB, Panipat

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S. No.	EC letter /Environmental monitoring reports	EC Compliance Status/Reports
1	EC Letter No. J-11011/27/91-IA II(I) dated 16.07.1992 for setting up of a grass root refinery at Karnal district by Indian Oil Corporation Limited.	Attached as Annexure-1
2	EC Letter No. J.11011/60/2000-IA.II dated 09.04.2001 for Expansion of Panipat Refinery (PREP) from 6 MMTPA to 12 MMTPA.	Attached as Annexure-2
3	3EC Letter No. J.11011/52/2000-IA.II dated 30.04.2001 for Integrated Paraxylene and Purified Terphthalic Acid Projects at Panipat by M/s IOCL.	Attached as Annexure-3
4	EC Letter No. J.11011/9/2001-IA II (I) dated 06.12.2001 for MS Quality Up-gradation Project at Panipat Refinery by IOCL.	Attached as Annexure-4
5	EC Letter No. J.11011/52/2000-IA II (I) dated 20.01.2003 for Modification in Plant layout of Paraxylene and Purified Terephthalic Acid (PX/PTA) Project within Panipat Refinery Complex and integrated with Panipat Refinery (PR) and Panipat Refinery Expansion Project (PREP).	Attached as Annexure-5
6	EC Letter No. J.11011/77/2004-IA II (I) dated 09.08.2004 for expansion of Panipat Refinery (From 12 MMTPA to 15 MMTPA) and Setting up of Indalin+ unit at Panipat Refinery Complex of IOCL, Panipat Refinery Haryana.	Attached as Annexure-6
7	EC Letter No. J.11011/177/2016-IA II (I) dated 26th March, 2018 for BS-VI Fuel Quality up-gradation and expansion of PX/PTA plant at Panipat Refinery & Petrochemical Complex (PRPC), Panipat (Haryana) by M/s Indian Oil Corporation Limited.	Attached as Annexure-7
8	EC Letter No. IA-J-11011/43/2018-IA- II (I) dated 13.11.2019 for Installation of 100 KLPD Ligno-Cellulosic 2G Ethanol Plant at Baholi, Block Madlauda, Panipat Refinery road, District Panipat (Haryana) By M/S Indian Oil Corporation Limited.	Attached as Annexure-8
9	EC Letter No. J-11011/78/2018-IA- II (I) dated 25.11.2019 for setting up 128 KL per day Ethanol Production Plant by M/s Indian Oil Corporation Ltd. (IOCL) in Panipat Refinery & Petrochemical Complex at Panipat, Haryana.	Attached as Annexure-9
10	EC Letter No. J-11011/177/2016- IA II (I) dated. 03.12.2021 for panipat refinery capacity expansion from existing 15 MMTPA to 25 MMTPA within the existing complex.	Attached as Annexure-10
11	Ambient Air quality data.	Attached as Annexure-11
12	Stack Emission data	Attached as Annexure-12
13	Effluent quality data	Attached as Annexure-13
14	Noise Monitoring data	Attached as Annexure-14
15	Manifests (Form-10)	Attached as Annexure-15

COMPLIANCE TO ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEFCC FOR SETTING UP OF A GRASSROOT REFINERY AT KARNAL, DISTRICT BY INDIAN OIL CORPORATION LIMITED - EC Letter no. J-11011/27/91-IA.II(I) dated 16.07.1992

SN	Stipulation	Compliance
1.	The project authority must strictly adhere to the stipulations laid down by the State Pollution Control Board and State Government.	Complied
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.	Complied
3.	Sulphur recovery unit with more than 90% Sulphur Recovery should be installed and commissioned before the project is completed, and measure for its continuous operation must be taken. Techno-economic feasibility study for additional standby sulphur recovery system may be initiated after the installation of first unit.	Complied Panipat Refinery has 5 nos. Sulphur Recovery Units (SRUs) as detailed below and 4 (99.9% recovery efficiency) out of 5 units are in operation: <ul style="list-style-type: none"> • 1 no. SRUs: 99% efficiency, 1X115 MT/day capacity • 4 no. SRUs: 99.9% efficiency, 4X225 MT/day capacity
4.	Low Sulfur fuel (Sulphur content not exceeding 1%) should be used in the boilers/furnaces.	Complied Fuel with sulphur content $\leq 0.5\%$ is used in the boilers/furnaces if required.
5.	Low NO _x burners should be used to avoid excessive formation of NO _x .	Complied Low NO _x burners have been installed in the process heaters, Boilers, furnaces etc.
6.	Total emission of SO ₂ from the refinery should not exceed 1 Ton/hr.	Complied SO ₂ emission (actual SO ₂ emission, 800-900 kg/hr) from the Refinery is well within the limit.
7.	The gaseous emissions (SO ₂ , NO _x etc.) from various process units should conform to the standards prescribed by the concerned authorities, from time to time. At no time the emission levels 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 measure are rectified to achieve the desired efficiency.	Complied
8.	Adequate number (a minimum of 7) of air quality monitoring stations should be set up in the down-wind direction as well as where maximum ground level concentration is anticipated. Stack emission should be monitored by setting up of an automatic continuous stack monitoring unit. The data on stack emission should be submitted to the 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 concentrations.	Complied Total 9 nos. of CAAQMS (2 nos. in Panipat city, 1 no. in Refinery township, 5 nos. in Refinery & 1 in Polishing Pond area) are in operation. These were set up in consultation with HSPCB. Also, one mobile van for ambient air quality monitoring is in place. All the CAAQMS stations are connected to the CPCB AAQMS server. For all stacks: SO ₂ , NO _x , CO & PM analyzers are available and connected to CPCB/HSPCB server. Data on stack emission are submitted to HSPCB/MoEFCC as per frequency mentioned.

SN	Stipulation	Compliance
9.	Fugitive emissions of hydrocarbons from storage tanks etc. should be minimized by adopting necessary measures.	Complied Floating roof tanks are provided to store volatile hydrocarbons.
10.	Fugitive emission should be regularly monitored and record maintained.	Complied Fugitive emission monitoring for Hydrocarbon and Benzene is done quarterly through MoEFCC approved agency.
11.	There should be no change in the stack design without the approval of the State Pollution Control Board. Alternate pollution control system and proper design in the stack should be provided to take care of excess emissions due to failure in any system of the plant.	No change in stack design shall be done without the approval of SPCB. Proper design and alternate Pollution control system is provided Complied to take care of excess emissions in case of failure in any system of the plant.
12.	The height of stacks attached to AVU, FCGU and TPS etc. should not be less than 100 m.	Implemented
13.	Total fresh water consumption (Industrial as well as township) should not exceed 8 MGD. Ground Water should not be tapped for this purpose.	8 MGD water allocated for 6 MMTPA Refinery. However, further EC granted to Refinery expansion from 6 to 12 MMTPA (J.11011/7/2004-IA-II (I) dated 09.08.2004) Fresh water allocation increased to 30 cusec.
14.	The project authorities must recycle wastewater to the maximum extent possible (at least 25% to 30% to start with). The treated effluent coming out of the plant must meet MINAS.	Complied ETP-I and II Treated effluent meeting Refinery MINAS parameter is "Recycled and Reused" as feed to RO plant and make up water to Cooling Tower.
15.	Adequate number of effluent quality (oil & Grease, COD, BOD, suspended Solids, Phenols, Sulphides, pH and Flow) monitoring stations must be set up in consultation with State Pollution Control Board.	Effluent quality as mentioned is being monitored at various stages of Effluent Treatment Plant. Also final Treated Effluent Quality parameters (pH, BOD, COD & TSS) are connected online to CPCB/HSPCB server.
16.	Maximum recovery of oil from the sludge should be done and residual oily sludge should be incinerated.	The raw oily sludge generated from the Refinery is subjected to Oil recovery / Melting Pit treatment for recovery of oil. The recovered oil is recycled back with crude oil for processing. - The residual sludge is disposed-off through confined Bio-remediation. - Part of the sludge is processed in Coker unit.
17.	The project authorities must prepare a scheme for solid and hazardous waste disposal. The plan for disposal duly approved from the State Pollution Control Board should be submitted to this Ministry within one year and adequate space should be provided for it within the plant premises.	Complied A common hazardous waste disposal site is developed in the state by Haryana Environmental Management Society (HEMS) in consultation with Haryana State Pollution Control Board. Panipat Refinery is the member of this society.
18.	A green belt of at least 500 m width and adequate density should be developed and maintained. Selection of the species should be done in consultation with the State Forest Department. A detailed green belt development plan taking into account attenuation factors, soil characteristics etc. should be prepared and submitted to this Ministry within six months.	Complied Greenbelt of 500 m width have been developed and maintained after consultation with State Forest Department.

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SN	Stipulation	Compliance												
19.	A detailed risk analysis study based on Maximum Credible Accident (MCA) analysis should be done and submitted to this Ministry once the process design/technology and layout is finalized. Based on this, a Disaster Management Plan has to be prepared and after approval by the concerned Nodal Agency, should be submitted to this ministry within six months. The impact zone under no circumstances should cross the plant premises.	A Comprehensive Risk Analysis is conducted. Report has been submitted. On-site Disaster Management Plan based on this Risk Analysis is also prepared which is accredited from approved Third Party Inspection agency of PNGRB.												
20.	A 'no development zone' of minimum 5km radius in between the refinery and the Panipat town should be provided. Where only restricted growth on nonpolluting industries may be allowed (Action – State Govt.)	Action by State Government. Letter dated 16.05.2020 and subsequent letter dated 10.01.2024 sent from PR to DC, Panipat requesting enforcement of this condition.												
21.	No tree should be cut from the site without prior written order of the competent authority.	Complied												
22.	The industrial township should be located on the northern side of the refinery i.e. in the up-wind direction.	Complied												
23.	A detailed Rehabilitation Plan for the affected people should be prepared and submitted to this Ministry within 3 months.	Complied												
24.	Contractor's labourers must leave place after the construction work is over to avoid creation of slum in the adjoining areas of the refinery and township.	Complied												
25.	A comprehensive EIA must be prepared and submitted to this Ministry by September, 1993 covering regional implications and 'no development zone' aspects.	Complied												
26.	Feasibility of using 20 tonner trucks may be studied / assessed wherever road transport is being envisaged and report submitted to this Ministry within three months.	Bulk Movement of Products is through Pipeline and Rail.												
27.	Necessary approval may be obtained from the Regulatory Authority as per Section 5(2) and 5(3) of the Hazardous Wastes (Management and Handling) Rules, 1989 of the Environment (Protection) Act, 1986.	Complied												
28.	The State Govt. should prepare a Master Plan for the region to avoid haphazard growth of industries and human settlements in the area.	Action by State Government.												
29.	The project authority must set up laboratory facilities for collection and analysis of samples under the supervision of competent technical personnel, who will directly report to the Chief Executive.	Complied NABL approved laboratory is established within the refinery.												
30.	A separate Environment Management Cell with suitably qualified people to carry out various functions should be set up under the control of Sr. Executive, who will report directly to the Head of the organization.	Complied												
31.	The funds earmarked for the environmental protection measures should not be diverted for other purposes and year wise expenditure should be reported to this Ministry.	Implemented, Year-wise expenditure: <table border="1" data-bbox="868 1675 1357 1839"> <thead> <tr> <th colspan="2">FY: 2021-22</th> <th colspan="2">FY: 2022-23</th> </tr> <tr> <th>Recurring</th> <th>Non-recurring</th> <th>Recurring</th> <th>Non-recurring</th> </tr> </thead> <tbody> <tr> <td>701.7</td> <td>2849.7</td> <td>3809.3</td> <td>109.6</td> </tr> </tbody> </table>	FY: 2021-22		FY: 2022-23		Recurring	Non-recurring	Recurring	Non-recurring	701.7	2849.7	3809.3	109.6
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Compliance status with respect to the EC conditions stipulated in the letter for Panipat Refinery Expansion Projects (PREP) from 6 MMTPA to 12 MMTPA – EC letter no. J.11011/60/2000-IA.II dated 09.04.2001 :

S N	Conditions stipulated in the EC letter	Status
1.	The company should strictly adhere to the stipulations made by MDE&F vide O.M. No. J.11011/76/96-IAII dated 5 th March, 1997	Complied
2.	a) The total SO ₂ emission from the entire Refinery complex should not exceed 1000 kg/hr even after proposed expansion.	Complied
	b) The gaseous emissions (SO ₂ , NO _x , HC, CO) and particulate matters, from various process units should conform to the standards prescribed under Environmental (Protection) Rules, 1986 or norms stipulated by SPCB whichever is most stringent.	Complied
	c) At no time, the emission level should go beyond the stipulated standards.	Complied
	d) In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	Complied
3.	Sulphur recovery units with more than 99% efficiency shall be provided.	Complied Four SRUs with 99.9% recovery have been installed & are operational.
4.	a) Adequate ambient air quality monitoring stations SO ₂ , NO _x , HC should be set up in the Refinery area in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind.	Complied 9 nos. of CAAQMS (5 nos. in Refinery, 2 nos. in Panipat city, 1 no. each in Refinery Township, and Polishing Pond area) are in operation. These were set up in consultation with HSPCB. All CAAQMS are connected to the CPCB AAQMS server. Also mobile van for ambient air quality monitoring is in place.
	b) The monitoring network must be decided based on making exercise to represent short term GLCs.	Complied
	c) In addition, a mobile van with adequate facilities to monitor ambient air quality outside the Refinery premises should be provided.	Complied Mobile van with adequate facilities for ambient air quality monitoring is in place and used to monitor ambient air quality outside the refinery.
	d) Continuous on-line stack monitoring equipment should be installed for measurement of SO ₂ , NO _x , CO & PM.	For all stacks: SO ₂ , NO _x , CO & PM analyzers are available and connected to CPCB / HSPCB server.
5.	a) Fugitive emission of HC from product storage tank yard, crude oil tanks etc, must be regularly monitored.	Complied Fugitive emission monitoring for Hydrocarbon and Benzene is done quarterly through MoEF&CC approved agency.
	b) Sensors for detecting HC leakages should also be provided at strategic locations.	Hydrocarbon leak detectors installed at strategic locations.

S N	Conditions stipulated in the EC letter	Status
6.	<p>a) As per the commitment given, there will be no discharge of treated effluent into Thirana drain.</p> <p>b) The liquid effluent generated from the Refinery should be treated comprehensively to conform to the load based standards and concentration limits prescribed under EPA rules.</p> <p>c) The entire treated wastewater should be recycled for reuse in the plant operation and green belt development so as to maintain zero discharge.</p>	<p>Treated effluent from ETP-1 & ETP-2 is reused as feed to RO plant and as make up to Cooling Tower.</p> <p>Treated Effluent from PTA-ETP (ETP-3) meeting Petrochemical MINAS is discharged into THIRANA DRAIN as per permission granted by statutory bodies (MoEFCC & HSPCB).</p> <p>Liquid effluent generated from Refinery & PX-PTA Petrochemical Complex is being treated in Waste Water Treatment Plant(s) which are meeting applicable Refinery & Petrochemical MINAS standards.</p> <p>Treated effluent from ETP-1 & ETP-2 is reused as feed to RO plant and as make up to Cooling Tower.</p> <p>Treated Effluent from PTA-ETP (ETP-3) meeting Petrochemical MINAS is discharged into THIRANA DRAIN as per permission granted by statutory bodies (MoEFCC & HSPCB).</p> <p>ETP-1 & ETP-2 treated effluent is recycled and reused as feed to RO plant and as make up to Cooling Tower.</p> <p>Treated Effluent from PTA-ETP (ETP-3) meeting Petrochemical MINAS is discharged into THIRANA DRAIN as per permission granted by statutory bodies (MoEFCC & HSPCB).</p>
7.	<p>a) Guard ponds of sufficient holding capacity should be provided to contain the effluent during process disturbance and or ETP failure.</p> <p>b) The concerned units must be shut down in case of effluent quality exceeding the prescribed limits.</p>	<p>Complied.</p> <p>Complied.</p>
8.	<p>a) The company should adopt mounded storage for LPG.</p> <p>b) The recommendations made in the Rapid Risk Assessment Report must be incorporated while firming up the plant layout and equipment design.</p> <p>c) The company must prepare a comprehensive risk assessment/analysis of the Refinery and associated facilities once the engineering design and layout is frozen.</p> <p>d) Based on this, on-site and off-site emergency preparedness plan must be prepared.</p>	<p>Complied.</p> <p>Mounded storage is used for LPG storage.</p> <p>Complied.</p> <p>The recommendations of the Rapid Risk Assessment study have been incorporated in the plant layout and equipment design.</p> <p>Complied.</p> <p>Complied.</p> <p>Onsite and Offsite Emergency Preparedness plan have been prepared and certified thru' PNGRB approved agency for Panipat Refinery.</p>

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S N	Conditions stipulated in the EC letter	Status
	e) Approval from the nodal agency must be obtained before commissioning the project.	Complied.
9.	The drawl of water from the Munak Head-works should not exceed 30 cusecs even after the proposed expansion.	Complied.
General conditions:		
S N	Conditions stipulated in the EC letter	Status
1.	The project authorities must strictly adhere to the stipulations made by the Haryana State Pollution Control Board and the State Government.	Complied
2.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forest.	Complied
3.	In case of deviations or alterations in the project proposed from those submitted to this Ministry for Clearance, a fresh reference should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied
4.	Data on ambient air quality, stack emission as well as fugitive emissions of HC must be regularly monitored and submitted to CPCB once in 3 months and to Ministry's Regional Office once in 6 months.	Complied. Mentioned reports are being submitted to MOEF&CC once in 6 months. Stack analyzers are online connected with CPCB/HSPCB server.
5.	Influent and effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for the MINAS parameters.	Influent and Effluent quality is being monitored at various stages of Effluent Treatment Plants. Final Treated Effluent Quality parameters (pH, BOD, COD & TSS) are also connected online to CPCB/HSPCB server. Effluent monitoring reports are submitted to HSPCB on monthly basis.
6.	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended, on 3 rd October, 1994. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire & Safety Inspectorate etc. must be obtained.	Complied.
7.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 1989. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	Complied. Hazardous Waste Authorization (HWA) for collection, storage and disposal of hazardous wastes is obtained from the HSPCB.
8.	Occupational health surveillance program should be undertaken as regular exercise for all the employees, especially for those engaged in handling hazardous substances.	Complied.
9.	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (Day time) and 70 dBA (night time)	Complied. The Refinery has provided silencers on compressor discharge, acoustic leggings on turbo generators & ejectors and acoustic chambers at the burners. The ambient noise level meets the standards.

S N	Conditions stipulated in the EC letter	Status												
10.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and risk analysis report.	Complied.												
11.	The project proponent should have a scheme upliftment in the nearby villages with reference to contribution in road construction, education of children, festivals, health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever possible both for technical and non technical jobs.	Complied Social upliftment and community development has been properly taken care as per IOCL's Corporate Social Responsibility Policy through following CSR activities. <ul style="list-style-type: none"> - Promoting Sanitation - Environment Sustainability/ Renewable Energy Sources - Rural Development/ Promoting Preventive Healthcare/ Promotion of Sports - Promoting Education - Enhancement of Vocational Skills - Empowering Women - Welfare of Underprivileged 												
12.	A separate environmental management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitored functions.	Complied Separate Environment Management Cell is in place.												
13.	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	Implemented. <table border="1" data-bbox="918 915 1370 1073" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" data-bbox="918 915 1144 947">FY: 2021-22</th> <th colspan="2" data-bbox="1144 915 1370 947">FY:2022-23</th> </tr> <tr> <th data-bbox="918 947 1042 1010">Recurri ng</th> <th data-bbox="1042 947 1144 1010">Non- recurri ng</th> <th data-bbox="1144 947 1253 1010">Recurri ng</th> <th data-bbox="1253 947 1370 1010">Non- recurring</th> </tr> </thead> <tbody> <tr> <td data-bbox="918 1010 1042 1073">701.7</td> <td data-bbox="1042 1010 1144 1073">2849.7</td> <td data-bbox="1144 1010 1253 1073">3809.3</td> <td data-bbox="1253 1010 1370 1073">109.6</td> </tr> </tbody> </table>	FY: 2021-22		FY:2022-23		Recurri ng	Non- recurri ng	Recurri ng	Non- recurring	701.7	2849.7	3809.3	109.6
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14.	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Chandigarh / State Pollution Control Board / Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.	Complied. Six monthly compliance reports along with monitoring data are being submitted as stated.												
15.	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locally concerned informing that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry and Forests at http://www.envfor.nic.in . the advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Ministry's Regional Office.	Complied												
16.	The project authorities should inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied												

Integrated Paraxylene and Purified Terphthalic Acid Projects at Panipat by M/s IOCL – Environmental Clearance MOEF, N. Delhi letter no. J.11011/52/2000-IA.II dated 30.04.2001

SN	Conditions stipulated in the EC letter	Status
1	a) The gaseous emission (SO ₂ , NO _x and HC, Benzene) from the various process units should conform to the standards prescribed under environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent.	Complied. Emission from the stack is being monitored online and from MoEF&CC approved lab on Bi-monthly basis. Stacks are connected online to CPCB/HSPCB server with parameters such as SO ₂ , NO _x , CO & PM.
	b) At no time, the emission level should go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until; the control measures are rectified to achieve the desired efficiency.	Complied.
2	a) Adequate ambient air quality monitoring stations (SPM, SO ₂ , NO _x , HC and Benzene) should be set up in the petrochemical complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modelling exercise to represent short term GLCs.	Complied. Out of 9, CAAQMS two Ambient Air Monitoring stations set up in PX-PTA plant area. The location of these is finalized after consultation with HSPCB. These CAAQMS stations are connected to the CPCB AAQMS server.
	b) Continuous on-line stack monitoring equipment should be installed for measurement of SO ₂ and NO _x .	Complied. PX-PTA stacks are connected online to CPCB/SPCB server with parameters such as SO ₂ , NO _x , CO & PM.
3	a) Fugitive emission of HC from product storage tank yard, crude oil tanks etc. must be regularly monitored.	Complied. Fugitive emission monitoring for Hydrocarbon and Benzene is done quarterly through approved agency.
	b) Sensors for detecting HC leakage should also be provided at strategic locations.	Complied. Hydrocarbon leak detectors installed at strategic locations.
4	a) Liquid effluent generated from the petrochemical complex should be treated comprehensively to conform to the load based standards and concentration limits prescribed under EPA rules (MINAS standards).	For Treating liquid effluent generated from Petrochemical complex separate ETP has been installed. PTA-ETP treated effluent meets the petrochemical MINAS. PTA ETP envisages Aerobic and Anaerobic Biological systems for treatment and the final effluent meets Petrochemical MINAS.
	b) The BOD of the treated effluent should not exceed 30 mg/l at any point of time.	BOD is being maintained below 30 mg /l.
	c) The Company must undertake maximum recycling/ reusing of the treated effluent for process purposes in addition to green belt development and also adopt adequate water conservation measures.	Process Licensor M/s INVISTA has confirmed that "Recycle & Reuse" of PTA treated effluent is not feasible. PX-PTA has permission for discharge of 255m ³ /hr treated effluent from PTA-ETP to Thirana drain.

	d) As per the commitment given the total quantity of treated effluent discharged into Thirana drain should not exceed 255 m ³ /hr.	The discharge of PTA-ETP treated effluent into Thirana Drain is being restricted well below 255 m ³ /hr.
	e) The effluent quality at the discharge point must also be monitored periodically by an independent agency authorized by CPCB and report of the independent agency should be submitted to Ministry's Regional office at Chandigarh/CPCB/ HSPCB.	Effluent Quality of PTA ETP is monitored monthly by an MOEF&CC authorized independent agency and report is being submitted to HSPCB (Monthly) and to RO MoEF&CC (Six-Monthly).
	f) The Company shall fully abide by the Hon'ble Supreme Court orders on regulation of industrial discharge to River Yamuna and it's canals / drains.	Complied.
5	a) Guard ponds of sufficient holding capacity should be provided to contain the effluent during process disturbances and or ETP failure.	Guard ponds of sufficient holding capacity are provided.
	b) The concerned units must be shut down in cases of effluent quality exceeding the prescribed limits.	Noted
	General Conditions	
SN	Conditions stipulated in the EC letter	Status/Action plan
1	The project authority must adhere to the stipulations made by Haryana State Pollution Control Board and State Government.	Complied
2	No expansion or modification of the plant should be carried out without prior approval of Ministry.	Noted
3	Data on ambient air quality and stack emissions as well as fugitive emissions of HC and Benzene from product storage tanks yard, naphtha tanks etc. must be regularly monitored and submitted to CPCB/ SPCB once in 3- months and to Ministry (Regional Office, Chandigarh) one in 6-months.	Complied. Mentioned reports are being sent to MOEF&CC once in 6 months and to HSPCB on bi-monthly basis. Stack analyzers are connected online with CPCB/HSPCB server.
4	The effluent quality before and after treatment should be regularly monitored. The frequency of monitoring and number of influent and effluent quality monitoring stations should be set up in consultation with the State PCB. The monitored data should be submitted to CPCB/ SPCB once in 3-months and to Ministry (Regional Office, Chandigarh) once in 6-months.	Complied Influent and Effluent quality is being monitored at various stages of Effluent Treatment Plants also Final Treated Effluent Quality parameters (pH, BOD, COD & TSS) also connected online to CPCB/HSPCB server Mentioned reports are being submitted to MOEF&CC once in 6 months and to HSPCB on monthly basis
5	Handling, manufacturing, storage and transportation of hazardous chemicals should be carried out in accordance with the Manufacture, Storage & Import of Hazardous chemicals Rules, 1989, as amended in 1991, Permissions from State and Central nodal agencies in this regard must be obtained.	Complied
6	Hazardous wastes, if any, must be handled and disposed as per Hazardous waste (Management and Handling) Rules, 1989. Authorization from State Pollution Control Board in this regard must be obtained.	Complied Authorization for Hazardous Waste has been obtained from HSPCB which is valid up to 30.09.2028.

7	Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase so as to avoid felling of trees and pollution of water and the surroundings.	Complied.												
8	The overall noise levels in and around the plant area should be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (day time) and 70 dBA (night time).	Complied. Silencers are provided on compressor discharge, acoustic leggings on turbo generators & ejectors and acoustic chambers at the burners. The ambient noise level meets the standards.												
9	Occupational Health Surveillance of the workers should be done on regular basis and records maintained.	Complied												
10	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP and risk analysis report.	Complied												
11	The project proponent should have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education of children festivals, health centers, sanitation facilities, drinking water supply, community awareness and employment to local people especially the displaced people whenever and wherever possible both for technical and non-technical jobs.	Complied Social upliftment and community development has been properly taken care as per IOCL's Corporate Social Responsibility Policy through following CSR activities. <ul style="list-style-type: none"> - Promoting Sanitation - Environment Sustainability/ Renewable Energy Sources - Rural Development/ Promoting Preventive Healthcare/ Promotion of Sports - Promoting Education - Enhancement of Vocational Skills - Empowering Women - Welfare of Underprivileged 												
12	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.	Complied Separate environment management cell is in place.												
13	The company must obtain ISO-14000 certification within a time frame of 5 years or so after the commissioning.	ISO-14000 certification has been obtained. Complied												
14	The funds earmarked for the environmental protection measures should not be diverted for any other purpose and year-wise expenditure should be submitted to this Ministry (Regional Office, Chandigarh/CPCB/SPCB)	Implemented. Year-wise expenditure: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">FY: 2021-22</th> <th colspan="2">FY: 2022-23</th> </tr> <tr> <th>Recurring</th> <th>Non-recurring</th> <th>Recurring</th> <th>Non-recurring</th> </tr> </thead> <tbody> <tr> <td>701.7</td> <td>2849.7</td> <td>3809.3</td> <td>109.6</td> </tr> </tbody> </table>	FY: 2021-22		FY: 2022-23		Recurring	Non-recurring	Recurring	Non-recurring	701.7	2849.7	3809.3	109.6
FY: 2021-22		FY: 2022-23												
Recurring	Non-recurring	Recurring	Non-recurring											
701.7	2849.7	3809.3	109.6											
15	Six monthly status reports on the project vis-à-vis environmental measures should be submitted to this Ministry (Regional Office, Chandigarh/ CPCB/SPCB.	Complied. Six monthly compliance reports along with monitoring data are being submitted.												

16	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Chandigarh/ State Pollution Control Board/ Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.	Will be adhered to.
17	The project proponent should advertise in at least two local newspaper widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearances by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry and Forests at http://www.envfor.nic.in	Complied
18	The Project Authorities should inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project, by the concerned authorities and the date of start of land development work.	Complied

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COMPLIANCE TO ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEF FOR M5 QUALITY UPGRADATION PROJECT AT PANIPAT REFINERY BY IOCL – J-11011/9/2001-IA. II (I) DATED 06.12.2001

SN	EC Conditions	Compliance Status
1.	The company shall ensure strictly implementations / Compliance of the terms and conditions mentioned vide Ministry's letter no. J.11011/60/2000-IA II dated 9 th April, 2001.	Complied (Stipulations are being strictly adhered for 6 MMTPA EC condition).
2.	The company shall also ensure that total SO ₂ emission from the Panipat Refinery (including expansion and M5 Quality Improvement Project) will not exceed 1000 kg/hr.	Complied SO ₂ emission from the Panipat Refinery (including expansion and M5 Quality Improvement Project) is well within the limit.
3.	The company shall comply with all recommendations made by Haryana SPCB vide consent order dated 24.01.2001.	Complied.
4.	The company shall comply with all recommendations made by EMP and risk Analysis reports.	Complied.
5.	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Chandigarh / State Pollution Control Board / Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.	Complied. Six monthly compliance reports along with monitoring data are submitted as stated.
6.	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locally concerned informing that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry and Forests at http://envfor.nic.in the advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Ministry's Regional Office.	Complied.
7.	The project authorities should inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied.

Modification in Plant Layout of Paraxylene and Purified Terephthalic Acid (PX/PTA) Project within Panipat Refinery Complex and Integrated with Panipat Refinery (PR) and Panipat Refinery Expansion Project (PREP) by M/s IOCL – Reg. Environmental Clearance - J.11011/52/2000-IA II (I) dated 20.01.2003

SN	EC Conditions	Compliance Status
1	The company shall ensure strict implementation / compliance to the stipulations made by MOEF vide OM no. J-11011/60/2000-IA-II dated 9 th April, 2001 for expansion of Panipat Refinery from 6 MMTPA to 12 MMTPA and J-11011/52/2000-IA-II dated 30 th April, 2001 for Integrated Paraxylene and Purified Terephthalic acid project at Panipat by M/s IOCL.	Complied.
2	Total SO ₂ emission after integration of PX-PTA project with PR/PREP shall not exceed 1275 kg/hr (i.e. 1000kg/hr. for PREP and 275 kg/hr from the proposed PX/PTA/CPP Project.)	SO ₂ emission is well within the limit. (Actual SO ₂ emission from the refinery is in the range of 800-900 kg/hr and from PX-PTA is in the range of 150-200 kg/hr)
3	As per the commitment given, the total quantity of treated effluent shall not exceed 255m ³ /hr from the proposed integration project.	Total quantity of treated effluent discharged into Thirana Drain is maintained well below 255m ³ /hr.
4	The company shall develop green belt in an area of 75 acres as per the original plan in the PX-PTA project area.	Complied.
5	The project authorities shall also comply with all the environmental protection measures and safeguards recommended in the EIA /EMP and risk analysis report submitted while seeking environmental clearance for the PREP and PX/PTA and PX/PTA/ PR project.	Complied.
6	As per the recommendations made in the Risk assessment study for the composite facility i.e. PX/PTA/PREP and associated facilities carried out by M/s KLG-TNO Safety Technology Ltd., the various elements of safety management system should be reviewed and updated keeping in view the new facilities added to the Refinery Complex. These include: Process and facilities information and documentation; Process Hazard Analysis; Operation Procedures; Inspection and Maintenance and Onsite Emergency Management Plan.	Various elements of Safety Management System (SMS) has been reviewed and updated keeping in view the new facilities added. On-site Disaster Management Plan based on this Risk Analysis is also prepared which is accredited from PNGRB approved Third Party Inspection agency.
7	The project authorities must adhere to the stipulations made by the HSPCB for the PREP, PX/PTA projects and NOC granted for the Installation of Captive Power Plant.	Complied.

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COMPLIANCE TO ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEF FOR EXPANSION OF PANIPAT REFINERY (FROM 12 MMTPA TO 15 MMTPA) AND SETTING UP OF INDALIN⁷ UNIT AT PANIPAT REFINERY COMPLEX OF IOCL, PANIPAT REFINERY HARYANA J-11011/7/2004-IA. II (I) dated 09.08.2004

S N	EC Conditions	Compliance Status
1.	The company shall ensure strict implementation / compliance to the stipulations made by MOEF vide OM no. J-11001/60/2000-IA-II dated 9 th April, 2001 for expansion of Panipat Refinery from 6 MMTPA to 12 MMTPA.	Complied
2.	The gaseous emissions (SO ₂ , NO _x and HC, Benzene) from the various process units should conform to the standards prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time, the emission level should go beyond the stipulated standards. In the event of failure pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	<p>Complied.</p> <p>Emission from the stack is being monitored online and from approved lab on bi-monthly basis. All stacks are connected online to CPCB / HSPCB server for parameters such as SO₂, NO_x, CO & PM.</p> <p>Gaseous emission from various process units meets the prescribed standards.</p>
3.	<p>Adequate ambient air quality monitoring stations, (SPM, SO₂, NO_x and HC, Benzene) should be set up in the refinery complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.</p> <p>Continuous on-line stack monitoring equipment should be installed for measurement of SO₂ and NO_x. Data on VOC should be monitored and submitted to the SPCB / Ministry.</p>	<p>9 nos. CAAQMS (5 nos. in Refinery, 2 nos. in Panipat city, 1 no. each in Refinery township and Polishing Pond area) are in operation. These were set up in consultation with HSPCB. Also mobile van for ambient air quality monitoring is in place. All CAAQMS are connected to CPCB AAQMS server.</p> <p>For all stacks: SO₂, CO, PM & NO_x analyzers are available and connected with CPCB server.</p> <p>Fugitive emission monitoring for Hydrocarbon and benzene is done quarterly through approved agency.</p> <p>All reports are submitted to HSPCB as stated.</p>
4.	Fugitive emission of HC from product storage tank yard, crude oil tanks etc. must be regularly monitored. Sensors for detecting HC leakage should also be provided at strategic locations.	<p>Fugitive emission monitoring for Hydrocarbon and Benzene for product storage tanks and crude oil storage tanks is done through approved agency on quarterly basis.</p> <p>Hydrocarbon detectors have been provided at strategic locations.</p>

S N	EC Conditions	Compliance Status
5.	<p>The company shall also ensure that the total SO₂ emissions from the Panipat Refinery after expansion shall not exceed i.e. 1000 kg/hr. The company shall install an additional Sulphur Recovery Unit (225 MT/day capacity) with 99.9% efficiency and the entire gas generated should be amine treated to reduce the SO₂ emissions level from the Refinery.</p>	<p>The total SO₂ emission of Panipat Refinery is within the limit i.e. 1000 kg/hr as mentioned.</p> <p>Panipat Refinery has 5 nos. Sulphur Recovery Units (SRUs) as detailed below and 4 (99.9 % recovery efficiency) out of 5 units are in operation:</p> <ul style="list-style-type: none"> • 1 no. SRU: 99% efficiency, 1X115 MT/day capacity • 4 no. SRUs: 99.9% efficiency, 4X225 MT/day capacity
6.	<p>As per the commitment given, there should be zero effluent discharge due to the proposed expansion.</p> <p>The company should ensure that there will be no discharge of treated effluent into Thirana Drain and the treated effluent from the refinery is not discharged along with the treated effluent from PX-PTA plant.</p> <p>The entire treated waste water should be recycled for reuse in the plant operation and greenbelt development so as to maintain zero discharge. Further, the liquid effluent generated from the Refinery should be treated comprehensively to conform to the load based standards and concentration limits prescribed under Environment (Protection) Act, 1986 Rules.</p>	<p>There is no discharge of treated effluent from Refinery operations.</p> <p>ETP-1 & ETP-2 treated effluent meets Refinery MINAS. These treated effluents are re-used as a feed to RO plant and makeup to Cooling Towers.</p> <p>PTA-ETP treated effluent meeting Petrochemical MINAS is discharged into Thirana Drain as per Consent-To-Operate /approvals from MOEFCC, HSPCB & Irrigation Department.</p>
7.	<p>The IOCL shall ensure installation of continuous flow measurement devices so that only the permitted quantity of treated effluent from PX-PTA plant (255 m³/hr.) is discharged. Further, IOCL shall make all efforts to recycle and reuse the treated effluent from PX-PTA plant after commencing of the unit.</p>	<p>Flow meters were installed at the time of setting up PTA-ETP. At no point of time discharge of treated effluent is exceeding the prescribed limit of 255 m³/hr.</p> <p>Process Licensor M/s INVISTA has confirmed that "Recycle and Reuse" of PTA treated effluent is not feasible.</p> <p>PX-PTA has permission for discharge of 255m³/hr treated effluent from PTA-ETP to Thirana drain.</p>
8.	<p>Additional water requirement shall not exceed 400 m³/hr. The total quantity of effluent generation should not exceed 1280 m³/hr. as indicated in the Environment Management Plan. The treated effluent should be reused/ recycled to achieve zero discharge.</p>	<p>The total allowable withdrawal of fresh water as per previous EC was 3058.21 m³/hr (as per EC of 6-12 MMTPA expansion).</p> <p>Adding the additional quantity of 400 m³/hr., the overall total allowable water quantity is 3458.21 m³/hr. Presently, fresh water consumption of the Refinery is well below the above mentioned limits.</p> <p>Total quantity of effluent generation remains <1100 m³/hr.</p> <p>ETP-1 & ETP-2 treated effluent meets MINAS. These treated effluents from Refinery operation are completely re-used as a feed to RO plant and as a makeup to Cooling Towers.</p>

S N	EC Conditions	Compliance Status
		PTA-ETP treated effluent meeting Petrochemical MINAS is discharged into Thirana Drain as per approvals/ Consent to Operate from MOEFCC, HSPCB, and Irrigation Department.
9.	Green belt of adequate width and density should be provided to mitigate the effects of fugitive emissions all around the plant. The bio-sludge from the ETP should be used as manure in the green belt development. Company shall develop greenbelt in consultation with DFO as per CPCB guidelines.	Greenbelts with adequate width & density were already provided. These greenbelts were developed in consultation with the District Forest Dept. Bio-sludge from ETP is being used as manure after converting it into semi solid form.
10.	The IOCL shall make efforts to sell petroleum coke (0.9 MMTPA) to organized industries having consent from the concerned State Pollution Control Board. Further, the Pet-coke from the Delayed Coker Unit should be conveyed to storage area by pipe conveyer system. The company should ensure to prevent seepage in Pet-coke stockpile / storage area to prevent soil and ground water pollution.	The Refinery gives Pet-coke to a separate IOCL division called Marketing Division which sells the same to consented/registered industries. Pet-coke is conveyed to storage area by pipe conveyer system.
11.	The oily sludge generated from the refinery operation should be subjected to melting pit treatment for recovery of oil. The recovered oil should be recycled. The residual oily sludge should be disposed off in the HDPE lined pits.	The raw oily sludge generated from the Refinery is subjected to Oil recovery/Melting Pit treatment for recovery of oil. The recovered oil is recycled back with crude oil for processing. - The residual sludge is disposed-off through confined Bio-remediation. - Part of the sludge is processed in Coker unit.
12.	The company should adopt mounded storage for LPG. The project authorities shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP and risk analysis report.	The Mounded Bullets are in operation.
13.	Occupational Health Surveillance of the workers should done on a regular basis and records maintained as per the Factories Act.	The Refinery has a full-fledged Occupational Health Centre (OHC) in operation. The OHC carries out health surveillance of the workers on a regular basis and records are maintained.
General conditions		
1.	The project authorities must strictly adhere to the stipulations made by the Haryana State Pollution Control Board and the State Government.	Complied
2.	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment & Forests.	Noted.

S N	EC Conditions	Compliance Status												
3.	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.	Complied. Emission from the stack is being monitored online and from approved lab on bi-monthly basis. All stacks are connected online to CPCB/HSPCB server with parameters such as SO ₂ , NO _x , CO & PM.												
4.	The overall noise levels in and around plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (day time) and 70 dBA (night time).	The Refinery has provided silencers on compressor discharge, acoustic leggings on turbo generators & ejectors and acoustic chambers at the burners. The ambient noise level meets the standards.												
5.	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the project.	Complied.												
6.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management & Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections / treatment / storage / disposal of hazardous waste.	Complied.												
7.	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	Implemented. <table border="1" data-bbox="843 1138 1342 1306"> <thead> <tr> <th colspan="2">FY: 2021-22</th> <th colspan="2">FY: 2022-23</th> </tr> <tr> <th>Recurring</th> <th>Non-recurring</th> <th>Recurring</th> <th>Non-recurring</th> </tr> </thead> <tbody> <tr> <td>701.7</td> <td>2849.7</td> <td>3809.3</td> <td>109.6</td> </tr> </tbody> </table>	FY: 2021-22		FY: 2022-23		Recurring	Non-recurring	Recurring	Non-recurring	701.7	2849.7	3809.3	109.6
FY: 2021-22		FY: 2022-23												
Recurring	Non-recurring	Recurring	Non-recurring											
701.7	2849.7	3809.3	109.6											
8.	The stipulated conditions will be monitored by the Regional of this Ministry at Chandigarh / Central Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly.	Six monthly compliance reports on EC conditions are submitted along with various monitoring reports as stated.												

S N	EC Conditions	Compliance Status
9.	<p>The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office.</p>	Complied.
10.	<p>The project authorities should 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 commencing the land development work.</p>	Complied

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ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEFCC FOR BS-VI FUEL QUALITY UP-GRADATION AND EXPANSION OF PX/PTA PLANT AT PANIPAT REFINERY & PETROCHEMICAL COMPLEX (PRPC), PANIPAT (HARYANA) BY M/S/INDIAN OIL CORPORATION LIMITED - ENVIRONMENTAL CLEARANCE - REG.

(Ref. No. J-11011/177/2016-IA- II (I) dated 26.03.2018)

Sl. No.	EC Conditions	Compliance Status
(i)	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Consent to Operate for BS-VI facilities including Panipat Refinery & PX-PTA Petrochemical Complex has been received from HSPCB.
(ii)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.	There is no discharge of treated effluent from Refinery operations. ETP-1 & ETP-2 treated effluent meets Refinery MINAS. These treated effluents are re-used as a feed to RO plant and makeup to Cooling Towers. PTA-ETP treated effluent meeting Petrochemical MINAS is discharged into Thirana Drain as per Consent-To-Operate/approvals from MOEFCC, HSPCB & Irrigation Department.
(iii)	In case of PX/PTA expansion project, there shall not be any increase in effluent discharge and the treated effluent of 255 cum/hr shall continue to be discharged to the existing Thirana Drain.	There will be no increase in treated effluent discharge into Thirana Drain post PX-PTA capacity expansion project.
(iv)	Necessary authorization required under the Hazardous and Other Wastes Management Rules, 2016 shall be obtained and the previous contained in the Rules shall be strictly adhered to.	Authorization under Hazardous and Other Wastes Management Rules, 2016 received from HSPCB on 16.06.2020 which is valid upto 30.09.2023.
(v)	Total SO ₂ emissions from the Refinery (including BS-VI Upgradation project) shall not exceed 1100 kg/hr whereas, for the PX/PTA plant after expansion, total SO ₂ emissions shall not exceed 375 kg/hr. Accordingly, total SO ₂ emissions from the Refinery Complex shall be limited to 1475 kg/hr.	SO ₂ emissions from the Refinery (including BS-VI Up gradation project) is within 1100 kg/hr. SO ₂ emissions from after PX-PTA expansion project is well below 375 Kg/hr. Total SO ₂ emission from refinery complex is well below 1475 Kg/hr.
(vi)	National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21 st July, 2010 and amended from time to time shall be followed.	Complied.
(vii)	To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks (attached to DHDT, HGU, Prime G) to meet the prescribed norms and /or the NAAQS. The gaseous emissions shall be dispersed through stacks of adequate height as per CPCB / SPCB guidelines.	For BS-VI fuel quality up gradation project- Complied. Post commissioning of the PX-PTA capacity expansion project, same shall be ensured.

Sl. No.	EC Conditions	Compliance Status
(viii)	Total fresh water requirement shall not exceed 354 m ³ /hr (8500 KLD) to be met from Munak Regulator. Necessary permission in this regard shall be obtained from the concerned regulatory authority.	Complied
(ix)	Process effluent/any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Complied
(x)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.	Complied
(xi)	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.	Complied. Being mixed fuel (Liquid +Gas) firing in the boiler, there is no ash generation.
(xii)	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.	Complied
(xiii)	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure to workers to fly ash & dust should be avoided.	Not Applicable
(xiv)	The company shall undertake waste minimization measures as below: (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw material or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment cleaning to reduce wastewater generation.	Complied
(xv)	The green belt of 5-10 m width shall be developed, in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Complied
(xvi)	At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	Complied
(xvii)	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic	Complied

Sl. No.	EC Conditions	Compliance Status
	enclosure shall be provided to DG set for controlling the noise pollution.	
(xviii)	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.	Complied
(xix)	Continuous online (24X7) monitoring system for stack emission shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.	Stack analyzers are installed and connected to CPCB/HSPCB server. Complied
(xx)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied
General Conditions		
(i)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.	Complied
(ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alternations 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
(iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied 2 nos. of additional CAAQMS under BS-VI fuel quality up-gradation project is installed in addition to existing 7 nos. of CAAQMS. All CAAQMS are connected to CPCB AAQMS server.
(iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16 th November, 2009 shall be 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 levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night	Complied Acoustic hoods, silencers and enclosures are provided on all sources of noise generation.

Sl. No.	EC Conditions	Compliance Status												
	time).													
(vi)	The Company shall harvest rainwater from the roof tops of the building 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.	Complied. Rain water harvesting pits are provided to collect rain water from roof tops and storm water drains to recharge the ground water.												
(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.	Complied												
(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 and risk mitigation measures relating to the project shall be implemented.	Complied												
(ix)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.	Complied												
(x)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied												
(xi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Implemented <table border="1"> <thead> <tr> <th colspan="2">FY: 2021-22</th> <th colspan="2">FY: 2022-23</th> </tr> <tr> <th>Recurri ng</th> <th>Non- recurr ing</th> <th>Recur ring</th> <th>Non- recurrin g</th> </tr> </thead> <tbody> <tr> <td>701.7</td> <td>2849. 7</td> <td>3809. 3</td> <td>109.6</td> </tr> </tbody> </table>	FY: 2021-22		FY: 2022-23		Recurri ng	Non- recurr ing	Recur ring	Non- recurrin g	701.7	2849. 7	3809. 3	109.6
FY: 2021-22		FY: 2022-23												
Recurri ng	Non- recurr ing	Recur ring	Non- recurrin g											
701.7	2849. 7	3809. 3	109.6											
(xii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	Complied												
(xiii)	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 SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website to the company.	Six monthly EC compliance report is submitted as stated. It is also posted on the website of the company.												

Sl. No.	EC Conditions	Compliance Status
(xiv)	The environmental statement for each financial year ending 31 st 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.	Environment statement is submitted to the statutory bodies annually.
(xv)	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 and informed
(xvi)	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

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ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEFCC FOR INSTALLATION OF 100 KLPD LIGNO-CELLULOSIC 2G ETHANOL PLANT AT BAHOLI, BLOCK MADLAUDA, PANIPAT REFINERY ROAD, DISTRICT PANIPAT (HARYANA) BY M/S INDIAN OIL CORPORATION LIMITED - ENVIRONMENTAL CLEARANCE - REG.
[Ref. No. IA-J-11011/43/2018-IA- II (I) dated 13.11.2019]

SN	EC Conditions	Compliance Status
General Conditions		
1.	The project authorities must strictly adhere to the stipulations made by State Pollution Control Board (SPCB), State Govt. and/or any other statutory authority.	Complied
2.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this ministry for clearance a fresh reference should be made to the ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Approval of MoEF&CC will be obtained for future expansion, if any.
3.	The location of Ambient Air Quality Monitoring Stations shall be decided in consultation with the State Pollution Control Board and it shall be ensured that at least one station each is installed in upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	2 nos. ambient air quality monitoring stations have been installed (One at upwind and another one at downwind direction), Connectivity with CPCB CAAQMS server under progress.
4.	The Nation Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No. 826 (E) dated 16 th November, 2009 shall be complied with.	Complied
5.	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 source of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 and the rules made there under.	Complied.
6.	The company shall harvest rain water from the rooftops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations inside the plant.	Complied, 18 nos. rain water harvesting pits (RWHP) have been installed.
7.	Training shall be imparted to all employees on safety and health aspects of chemical 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.	Complied
8.	The company shall 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 shall be implemented.	All the Recommendations given in the EIA report and Public Hearing have been implemented except piezometer installation. Piezometer installation is under progress.

9.	The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental shall be undertaken for overall improvement of the environment.	is being done.				
10.	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complied. Environmental Management Cell is available with full-fledged refinery laboratory to carry out the Environmental Management and Monitoring functions.				
11.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forests and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Complied. Following funds is earmarked for environment management/Pollution control measures: <table border="1" data-bbox="1030 751 1278 877"> <tr> <td>Capital cost</td> <td>Recurring cost</td> </tr> <tr> <td>3507 lakhs</td> <td>187 lakhs</td> </tr> </table>	Capital cost	Recurring cost	3507 lakhs	187 lakhs
Capital cost	Recurring cost					
3507 lakhs	187 lakhs					
12.	A copy of the clearance letter shall be sent by the project proponent to the concerned Panchayat, Zila Parishad/Municipal corporation, urban local body and local NGO, if any, from whom suggestion/representation, if any, were received while processing the proposal.	Complied				
13.	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 copy as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	Complied				
14.	The environmental statement for each financial year ending 31 st 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.	Complied				
15.	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 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 Regional Office of the Ministry.	Complied				

Specific Conditions		
1.	The project proponent shall install 10 TPD 2G Ethanol demo plant for R&D purpose.	Complied
2.	Prior approval shall be obtained from the Petroleum & Explosive Safety Organization (PESO) for the site and layout plan submitted to this ministry along with the proposal for EC. In case of any changes therein post PESO approval, the proposal shall require fresh appraisal by the sectoral EAC.	Complied
3.	Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 as applicable from time to time shall be obtained from the State Pollution Control Board as required.	Complied, CTO received on 21.07.2022
4.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste / treated water shall be discharged outside the premises.	Complied, ZLD is ensured and no treated water is discharged outside the premises.
5.	Sludge management plan shall be formulated and ensured.	Complied, Being non-hazardous, sludge from ETP is disposed off in landfilling.
6.	Ash management shall be ensured by utilizing for manufacturing bricks.	Complied, M/s Shree Cement and M/s Garg build solutions are lined up for utilization of Ash in cement and bricks manufacturing respectively.
7.	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement Rules ,2016 Solid Waste Management Rules ,2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Hazardous waste Authorization obtained from HSPCB.
8.	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Complied, Stack is provided as per CPCB/SPCB guidelines.
9.	Total fresh water requirement shall not exceed 109 m ³ /hr., proposed to be met from Munak Regulator on Western Yamuna Canal. Prior permission shall be obtained from the concerned regulatory authority.	Complied, Permission for withdrawal of fresh water from Ministry of water resources, Haryana is taken and it is valid upto 01.04.2024.
10.	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arrester shall be provided on tank farm and the solvent transfer through pumps.	Complied,
11.	Process organic residue and spent carbon, if any shall be sent to cement industries. ETP sludge, process inorganic and evaporation salt shall be disposed off to the TSDF.	Complied, Being non-hazardous, sludge from ETP is disposed off in landfilling.

12.	The company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as mentioned time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicles Act, 1989.	Complied.
13.	The company shall undertake waste minimization measures as below:- (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw materials or as raw materials substitutes in other processes. (c) Use of automatic filling to avoid spillage. (d) Use of Close Feed System into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure hoses for equipment cleaning to reduce waste water generation.	Complied
14.	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be done as per the CPCB guidelines in consultation with the State Forest Department.	Complied, Green belt more than 33% of total plant area is available.
15.	All the commitments made regarding issues raised during the public hearing / consultation meeting shall be satisfactorily implemented.	All the commitments made regarding issues raised during Public Hearing have been implemented except piezometer installation. Piezometer installation is under progress.
16.	At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	Under implementation.
17.	For the DG sets, emission limits and stack height shall be in conformity with the extant regulations and the CPCB regulations. Acoustic enclosures shall be provided to the DG set for controlling the noise pollution.	No DG sets are installed in this project.
18.	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.	Complied, Necessary firefighting equipments are provided as per recommendations made in the RRA report.
19.	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied
20.	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Complied

21.	Storage of raw material shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.	Complied
22.	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel /drain carrying effluent within the premises.	Stack is provided as per CPCB/SPCB guidelines. For online continuous monitoring of effluent and emission, analyzers connectivity to the CPCB and HSPCB server is under progress. Installation of web camera completed and flow meter installation is under progress.

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ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEFCC FOR SETTING UP 128 KL PER DAY ETHANOL PRODUCTION PLANT BY M/S INDIAN OIL CORPORATION LTD. (IOCL) IN PANIPAT REFINERY & PETROCHEMICAL COMPLEX AT PANIPAT, HARYANA - ENVIRONMENTAL CLEARANCE – REGARDING (Ref. No. J-11011/78/2018-IA- II (I) dated 25.11.2019)

SN	EC Conditions	Compliance Status
General Conditions		
1.	The project authorities must strictly adhere to the stipulations made by State Pollution Control Board (SPCB), State Govt. and/or any other statutory authority.	Complied
2.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this ministry for clearance a fresh reference should be made to the ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Approval of MoEF&CC will be obtained for future expansion, if any.
3.	The location of Ambient Air Quality Monitoring Stations shall be decided in consultation with the State Pollution Control Board and it shall be ensured that at least one stations each is installed in upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Installation of 2 nos. Air Quality Monitoring Stations is in progress.
4.	The Nation Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No. 826 (E) dated 16 th November, 2009 shall be complied with.	Complied
5.	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 source of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 and the rules made there under.	Complied.
6.	The company shall harvest rain water from the rooftops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations inside the plant.	Complied, Rain water harvesting pits are installed.
7.	Training shall be imparted to all employees on safety and health aspects of chemical 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.	Complied
8.	The company shall 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 shall be implemented.	Complied, All the Recommendations given in the EIA report and Public Hearing have been implemented.
9.	The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental shall be undertaken for overall improvement of the environment.	Under implementation.
10.	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell is available with full-fledged refinery laboratory to carry out the Environmental Management and Monitoring functions.

11.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forests and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Complied
12.	A copy of the clearance letter shall be sent by the project proponent to the concerned Panchayat, Zila Parishad/Municipal corporation, urban local body and local NGO, if any, from whom suggestion/representation, if any, were received while processing the proposal.	Complied
13.	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 copy as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	Complied
14.	The environmental statement for each financial year ending 31 st 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.	Complied.
15.	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 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 Regional Office of the Ministry.	Complied
Specific Conditions		
1.	Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 as applicable from time to time shall be obtained from the State Pollution Control Board as required.	Complied, CTO is received on 27.07.2022
2.	Effluent of 209 cum per day shall be treated in existing Effluent Treatment Plant of Panipat Refinery and Panipat Refinery will not exceed the permissible discharge as allowed to Panipat Refinery while granting environmental clearance vide letter dated 26 th March 2018.	Complied
3.	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement Rules, 2016 Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Complied
4.	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Complied, Adequate measures have been taken to control fugitive emissions, No furnace/boller is installed in this project,

5.	Odour shall be prevented at the source and effective odour management scheme shall be implemented.	Complied, Monitoring of odour is done regularly and its control measures are implemented.
6.	Total fresh water requirement shall not exceed 3600 cum/day, proposed to be met from Munak Regulator on Western Yamuna Canal. Prior permission shall be obtained from the concerned regulatory authority.	Complied. Permission for withdrawal of fresh water from Ministry of water resources, Haryana is taken and it is valid upto 01.04.2024.
7.	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arrester shall be provided on tank farm and the solvent transfer through pumps.	Complied,
8.	Process organic residue and spent carbon, if any shall be sent to cement industries. ETP sludge, process inorganic and evaporation salt shall be disposed off to the TSDF.	Complied
9.	The company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as mentioned time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicles Act, 1989.	Complied
10.	The company shall undertake waste minimization measures as below:- (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw materials or as raw materials substitutes in other processes. (c) Use of automatic filling to avoid spillage. (d) Use of Close Feed System into batch reactors. (e) Venting equipment through vapor recovery system (f) Use of high pressure hoses for equipment clearing to reduce waste water generation.	Complied
11.	The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be done as per the CPCB guidelines in consultation with the State Forest Department.	Complied, Green belt more than 33% of total plant area is available.
12.	All the commitments made regarding issues raised during the public hearing / consultation meeting shall be satisfactorily implemented.	Complied

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13.	At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Priority shall be given for construction/repair of the village roads.	Under implementation.
14.	For the DG sets, emission limits and stack height shall be in conformity with the extant regulations and the CPCB regulations. Acoustic enclosures shall be provided to the DG set for controlling the noise pollution.	No DG sets are installed in this project.
15.	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.	Complied, Necessary firefighting equipments are provided as per recommendations made in the RRA report.
16.	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied
17.	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Complied
18.	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel /drain carrying effluent within the premises.	No furnace/boiler is installed in this project
19.	The unit shall comply with NGT order and shall not damage environment any further including ground water.	Complied
20.	The unit shall take precautionary measures for control of VOCs and shall follow CPCB guideline and norms.	Complied

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Annexure-10

ENVIRONMENTAL CLEARANCE STIPULATIONS FROM MOEFCC FOR PANIPAT REFINERY CAPACITY EXPANSION FROM EXISTING 15 MMTPA TO 25 MMTPA WITHIN THE EXISTING REFINERY COMPLEX, ENVIRONMENTAL CLEARANCE – REGARDING (EC Identification No. EC21A010HR142882; File No. J-11011/177/2016-IAII(I) dated 03.12.2021)

SN	EC Conditions	Compliance Status
Specific Conditions		
(i).	The project shall conform to ZLD.	Noted and shall be complied
(ii).	The company shall 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, and risk mitigation measures relating to the project shall be implemented.	Will be complied
(iii).	The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 18th March, 2008 and G.S.R.595(E) dated 21st August, 2009 as amended from time to time, shall be followed.	Noted
(iv).	Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. For emission control and management, use of FG/NG in heater as fuel, adequate stack height, use of Low NOX burners in heater & boiler, continuous stack monitoring, Sulphur recovery plant, etc. shall be installed/ensured.	Will be complied
(v).	Total water requirement is 1,62,864 m ³ /day of which fresh water requirement of 98880 m ³ /day will be met from Western Yamuna Canal. Necessary permission in this regard shall be obtained from the concerned regulatory authority.	Will be complied
(vi).	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Will be complied
(vii).	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.	Will be complied
(viii).	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Will be complied
(ix).	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided. The ash from boiler shall be sold to brick manufacturers/cement industry.	Mixed fuel (Liquid +Gas) will be fired in the Boiler; there will be no ash generation.

/s/

(x).	The company shall undertake waste minimization measures as below: - a. Metering and control of quantities of active ingredients to minimize waste. b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. c. Use of automated filling to minimize spillage. d. Use of Close Feed system into batch reactors. e. Venting equipment through vapour recovery system. f. Use of high pressure hoses for equipment cleaning to reduce wastewater generation.	Will be complied
(xi).	The green belt of 5-10 m width shall be developed in the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. The project proponent shall ensure 33% greenbelt area vis-à-vis the project area through afforestation in the degraded area. The Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Will be complied
(xii).	As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socioeconomic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.	Will be complied
(xiii).	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Complied
(xiv).	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	Will be complied
(xv).	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.	Will be complied
(xvi).	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Will be complied
(xvii).	Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.	Will be complied
(xviii).	The PP should improve the efficiency of ETP Plant and the water discharge should be as per prescribed CPCB Norms. They should also install 24x7 hours monitoring system (of the discharge) and the same should be connected to the server of SPCB/CPCB.	Noted and will be complied

General Conditions		
(i).	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. 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/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted
(ii).	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Will be complied
(iii).	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 levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Will be complied
(iv).	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Will be complied
(v).	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Will be complied
(vi).	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	No representations received/suggestions received from these mentioned authorities while processing the proposal.
(vii).	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 email) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	This is complied for existing refinery and will continue to do so in future
(viii).	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.	This is complied for existing refinery and will continue to do so in future

(ix).	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 and at https://parivesh.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 and informed
(x).	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.	Will be complied
(xi).	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted





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TEST CERTIFICATE

Page 1 of 1

Brand/Type:	MPs IndEx Oil Corporation Limited (Refinery Division) Parson Naphtex Cracker, Parson (Haryana)	Report No.:	AAI ENV-20230704039, AAI ENV-20230707002, AAI ENV-20230711009, AAI ENV-20230714028, AAI ENV-20230718015, AAI ENV-20230721001, AAI ENV-20230723003, AAI ENV-20230728014, AAI ENV-20230802002 07/08/2023
Sample Description:	Ambient Air Quality Monitoring	Date of Reporting:	07/08/2023
Work order Item:	Parson Refinery (Table-D)	Sampling Method:	IS:5182 (Part-14)-2000
Sampling Location:	Roof of Administration Building	Sampling Duration:	24:00 Hrs
		Sampling Done By:	AAI

TEST RESULTS

Test Parameters + Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (ppm)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	Pb (µg/m ³)	Cd, Ni, Cu	As (µg/m ³)	Ni (µg/m ³)	Ba/Pb (µg/m ³)
10-07-2023	46.4	89.5	11.4	28.6	1.00	25.2	41.2	ND	1.10	ND	ND	ND
16-07-2023	40.2	73.6	10.8	26.5	0.80	26.8	39.8	ND	1.15	ND	ND	ND
18-07-2023	56.8	96.8	11.8	29.3	1.05	28.4	42.5	ND	1.20	ND	ND	ND
13-07-2023	54.3	94.2	11.8	28.8	1.00	28.2	41.9	ND	1.15	ND	ND	ND
17-07-2023	38.4	72.9	10.2	24.2	0.80	27.3	39.2	ND	1.28	ND	ND	ND
20-07-2023	39.2	73.4	10.4	24.8	0.80	27.6	38.4	ND	1.10	ND	ND	ND
24-07-2023	33.8	69.8	9.8	23.7	0.75	26.7	37.5	ND	1.20	ND	ND	ND
27-07-2023	36.4	70.3	9.9	24.5	0.80	27.3	39.6	ND	1.60	ND	ND	ND
31-07-2023	30.8	67.8	9.6	23.4	0.75	27.2	40.4	ND	1.10	ND	ND	ND
Minimum	40.2	92.6	11.9	20.4	1.00	26.6	41.5	-	1.00	-	-	-
Maximum	48.8	112.6	12.9	32.2	1.20	31.2	47.2	-	1.20	-	-	-
Average	44.1	101.3	12.9	31.3	1.09	30.2	44.8	-	1.13	-	-	-
NAAQ Standard	60	100	80	80	1	100	480	1	5	5	20	1
Test Method	IS-5182P-20-2000	IS-5182P-22-2000	IS-5182P-17-2000	IS-5182P-16-2000	IS-5182P-16-1999	IS-5182P-16-1999	IS-5182P-20-2018	IS-5182P-22-2000	IS-5182P-11-2000	IS-5182P-21-2000	IS-5182P-11-2000	IS-5182P-11-2000

End of Report

Remarks:

1. All test results are subject to quality control and are based on the data received.

2. Lead (Pb) - 1 µg/m³, Nickel (Ni) - 0.5 µg/m³, Arsenic (As) - 0.1 µg/m³, Cadmium (Cd) - 0.01 µg/m³, Barium (Ba) - 1.0 µg/m³, Copper (Cu) - 0.5 µg/m³.

3. Sample collection and analysis done under strict supervision.

ASHUTOSH BRUWAS
Deputy Technical Manager
Authorized Signatory

- Note: 1. The Result indicated above refer to the tested sample and listed test parameters only, impurities of products is neither referred nor reported.
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Issued To:	M/s Indian Oil Corporation Limited (Refineries Division) Panipat Refinery Caster, Panipat (Haryana)	Report No.:	AAL ENV-20230804016, AAL ENV-20230806001, AAL ENV-20230811009, AAL ENV-20230816001, AAL ENV-20230818023, AAL ENV-20230822018, AAL ENV-20230825003, AAL ENV-20230829021, AAL ENV-20230901002
Sample Description:	Ambient Air Quality Monitoring	Date of Reporting:	06/09/2023
Work order Item:	Panipat Refinery (Table-D)	Sampling Method:	IS 5182 (Part-14)-2000
Sampling Location:	Roof of Administration Building	Sampling Duration:	24:00 Hrs.
		Sampling Done By:	AAL

TEST RESULTS

Test Parameters- Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (ppm)	O ₃ (ppm)	NH ₃ (µg/m ³)	Pb (µg/m ³)	Cd (µg/m ³)	As (µg/m ³)	Cr (µg/m ³)	Ba/P (µg/m ³)
03/08/2023	32.5	76.0	10.5	24.5	0.75	30.5	36.8	ND	1.05	ND	ND	ND
07/08/2023	42.8	80.5	12.3	30.5	1.10	32.4	34.4	ND	1.20	ND	ND	ND
10/08/2023	39.0	75.5	12.9	23.9	0.85	28.3	30.8	ND	1.15	ND	ND	ND
14/08/2023	48.3	73.5	10.8	24.7	0.95	22.0	38.7	ND	1.20	ND	ND	ND
17/08/2023	45.7	88.6	11.4	27.3	1.05	29.5	42.3	ND	1.25	ND	ND	ND
23/08/2023	36.1	70.2	12.7	28.1	0.85	38.6	40.7	ND	1.20	ND	ND	ND
26/08/2023	40.5	78.8	12.1	25.4	0.80	29.3	30.4	ND	1.10	ND	ND	ND
28/08/2023	43.7	75.5	9.8	30.6	0.75	38.4	31.8	ND	1.05	ND	ND	ND
31/08/2023	34.9	74.3	10.3	22.7	0.80	29.8	45.2	ND	1.15	ND	ND	ND
Maximum	48.3	93.5	12.9	30.9	1.10	32.4	45.2	-	1.35	-	-	-
Minimum	34.9	70.2	9.8	22.7	0.75	26.2	30.4	-	1.05	-	-	-
Average	40.9	79.1	11.4	26.4	0.88	29.6	36.6	-	1.15	-	-	-
NAAQ Standard	50	100	80	80	2	100	400	1	5	6	20	1
Test Method	IS 5182P-24:2000	IS 5182P-23:2006	IS 5182 (P)-2009	IS 5182P-07:2004	IS 5182P-04:2009	IS 5182P-05:1974	IS 5182P-22:2008	IS 5182P-23:2004	IS 5182P-01:2004	IS 5182P-22:2004	AAL SOP-001	IS 5182P-03:2004

End of Report

Notes:-

NAAQP- Ambient Air Quality Standard (ND- Not Detected, DL- Maximum Limit)

Lead (Pb) - 1 µg/m³, Nickel (Ni) - 0.5 µg/m³, Arsenic (As) - 0.1 µg/m³, Benzene (C₆H₆) - 1.0 µg/m³, Diesel (µg/m³) - 0.1 µg/m³

Sample and test results must derive from the date of sampling.


ASHUTOSH SRIVASTAVA
 Deputy Technical Manager
 Authorized Signatory

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Issued To:	Ma India Oil Corporation Limited (Refineries Division) Panipat Nigaha Cracker, Panipat (Haryana)	Report No.:	AAL ENV-20231004082, AAL ENV-20231007003, AAL ENV-20231010001, AAL ENV-20231013055, AAL ENV-20231017004, AAL ENV-20231020015
Sample Description:	Ambient Air Quality Monitoring	Date of Reporting:	25/10/2023
Work order from:	Panipat Refinery (TANV-2)	Sampling Method:	IS:5182 (Part-14):2000
Sampling Location:	Roof of Administration Building	Sampling Duration:	24-00 Hrs
		Sampling Done By:	AAL

TEST RESULTS

Test Parameters -> Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (µg/m ³)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	Pb (µg/m ³)	Cd (µg/m ³)	As (µg/m ³)	Mn (µg/m ³)	HexP (µg/m ³)
03/10/2023	82.7	176.7	14.8	21.9	1.10	21.2	34.3	ND	1.28	ND	ND	ND
06/10/2023	85.4	182.5	13.8	26.4	1.05	28.8	30.9	ND	1.17	ND	ND	ND
08/10/2023	80.4	192.8	14.6	22.4	1.20	22.3	36.5	ND	1.05	ND	ND	ND
12/10/2023	87.4	198.2	13.9	28.4	1.00	26.3	28.4	ND	1.10	ND	ND	ND
16/10/2023	81.4	178.5	12.4	24.5	1.15	27.6	30.5	ND	1.10	ND	ND	ND
19/10/2023	89.4	191.6	14.8	22.6	0.85	23.0	29.4	ND	1.20	ND	ND	ND
Maximum	89.4	198.2	14.8	22.4	1.20	22.3	36.5	-	1.20	-	-	-
Minimum	80.4	176.5	12.4	22.6	0.85	23.0	28.4	-	1.05	-	-	-
Average	84.5	186.7	14.1	26.4	1.06	25.4	21.7	-	1.10	-	-	-
NAAQ Standard	60	100	80	80	2	180	400	1	5	6	20	1
Test Method	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000	IS 5182P-14:2000

End of Report

Remarks:
 1. NAAQ Standard Ambient Air Quality Standard (AQI) - AQI - Excellent (1-50)
 2. Lead (Pb) < 0.1 µg/m³, Nickel (Ni) < 1.2 µg/m³, Arsenic (As) < 1.1 µg/m³, Cadmium (Cd) < 0.1 µg/m³, Manganese (Mn) < 1.0 µg/m³
 Sample Ambient Air Quality Standard from the test conducted.

Asmitosh Ghoshastava
ASMITOSH GHOASTAVA
 Deputy Technical Manager
 Authorised Signatory

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Sample Description:	Ambient Air Quality Monitoring	Date of Reporting:	06/12/2023
Work order Item:	Punjab Refinery (Table-D)	Sampling Method:	IS:5182 (Part-14)-2000
Sampling Location:	Roof of Administration Building	Sampling Duration:	24:00 Hrs
		Sampling Done By:	AAL

TEST RESULTS

Test Parameters Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (µg/m ³)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	Pb (µg/m ³)	Cd (µg/m ³)	As (µg/m ³)	Ni (µg/m ³)	Cr(VI) (µg/m ³)
03/11/2023	105.2	214.8	0.3	14.8	1.15	33.3	25.1	ND	1.05	ND	ND	ND
06/11/2023	142.3	252.2	14.8	23.9	1.00	30.4	27.6	ND	1.20	ND	ND	ND
09/11/2023	125.6	227.4	13.8	23.3	1.05	28.9	25.4	ND	1.00	ND	ND	ND
16/11/2023	83.9	168.7	13.6	24.3	1.15	29.7	36.8	ND	1.25	ND	ND	ND
20/11/2023	80.8	160.6	14.5	22.8	1.20	23.9	32.4	ND	1.00	ND	ND	ND
24/11/2023	85.7	155.2	12.8	24.4	0.95	32.3	29.7	ND	1.15	ND	ND	ND
27/11/2023	68.3	121.1	10.3	23.8	1.05	30.1	27.6	ND	1.15	ND	ND	ND
30/11/2023	60.5	112.7	11.3	26.3	0.95	32.8	29.9	ND	1.20	ND	ND	ND
Maximum	142.3	252.2	14.8	26.5	1.20	33.5	32.4	-	1.25	-	-	-
Minimum	60.5	112.7	10.3	22.8	0.95	23.9	25.1	-	1.00	-	-	-
Average	94.2	176.6	12.8	24.5	1.00	30.5	28.6	-	1.12	-	-	-
NAAQ Standard	60	100	80	80	1	100	400	1	5	6	20	1
Test Method	IS:5010-14:2015	IS:5010-13:2006	IS:4102-0:2010	IS:4101-0:2010	IS:5010-14:2015	IS:4101-0:2010	IS:4101-0:2010	IS:4101-0:2010	IS:5010-13:2006	IS:5010-13:2006	IS:5010-13:2006	IS:5010-13:2006

End of Report

Remarks:

1. NAAQS Ambient Air Quality Standard for the District, IS - Standard 1194,
 (SO₂ as SO₂ = 1.0 µg/m³, NO₂ as NO₂ = 1.0 µg/m³, CO as CO = 1.0 µg/m³, Pb as Pb = 1.0 µg/m³, Ni as Ni = 1.0 µg/m³, Cr(VI) as Cr(VI) = 1.0 µg/m³, Arsenic as As = 0.1 µg/m³)
 Sample collected within 100m distance from the road sampling.


ABHJIT SHRIVASTAVA
 Deputy Technical Manager
 Authorised Signatory

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Sample Description:	Ambient Air Quality Monitoring	Date of Reporting:	03/01/2024
Work order Item:	Panipat Refinery (Table-D)	Sampling Method:	IS:182 (Part-14)-2000
Sampling Location:	Roof of Administration Building	Sampling Duration:	24 HR
		Sampling Done By:	AAL

TEST RESULTS

Test Parameters → Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (µg/m ³)	O ₃ (µg/m ³)	NO _x (µg/m ³)	Pb (µg/m ³)	Cr(VI) (µg/m ³)	As (µg/m ³)	Ni (µg/m ³)	TRAP (µg/m ³)
04/12/2023	63.8	172.5	10.4	22.3	0.80	30.5	28.9	ND	1.15	ND	ND	ND
07/12/2023	70.5	168.7	11.3	20.9	1.00	28.2	25.8	ND	1.00	ND	ND	ND
11/12/2023	65.4	176.0	10.9	24.7	1.15	26.9	23.4	ND	1.20	ND	ND	ND
14/12/2023	87.4	182.7	12.4	27.3	1.20	30.5	27.6	ND	1.15	ND	ND	ND
18/12/2023	39.5	138.2	10.2	21.4	1.05	27.1	25.8	ND	1.20	ND	ND	ND
21/12/2023	82.9	179.6	12.2	26.0	1.15	29.4	32.0	ND	1.15	ND	ND	ND
28/12/2023	108.7	163.8	10.8	22.8	0.95	27.0	22.7	ND	1.15	ND	ND	ND
Maximum	87.4	182.7	12.4	27.3	1.20	30.5	32.0	-	1.20	-	-	-
Minimum	39.5	138.2	10.2	20.9	0.80	26.9	22.7	-	1.00	-	-	-
Average	71.0	171.8	11.2	24.2	1.00	28.6	26.7	-	1.1	-	-	-
NAAQ Standard	40	180	80	80	2	108	430	1	5	6	20	1
Test Method	IS:5102- 2019	IS:5102- 2019	IS:5101- (Part-1)	IS:5101- 2019	IS:5102- 10-1999	IS:5102- 2019	IS:5102- 2019	IS:5101- 2019	IS:5102- 10-1999	IS:5102- 2019	AAL502 2023	IS:5102- 2019

End of Report

Result :-

Sampled Ambient Air Quality found within standard IS:5102-2019.

Sampled Air: PM₁₀ - 71.0 µg/m³, PM_{2.5} - 171.8 µg/m³, SO₂ - 11.2 µg/m³, NO₂ - 24.2 µg/m³, CO - 1.00 µg/m³, O₃ - 28.6 µg/m³, NO_x - 26.7 µg/m³, Pb - 0.00 µg/m³.

Sampled location: Roof of Administration Building.

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
 Deputy Technical Manager
 Authorised Signatory

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TEST CERTIFICATE

Page 1 of 5

Issued To: M/s Indian Oil Corporation Limited
(Refinery Division)
Punjab Refinery Cracker,
Punjab (Haryana)

Sample Description: Stack Emission

Sampling Method: IS:11255

Work order from: Punjab Refinery & P&T/A (Table E & M)

Report No.: AAL ENV-20230716009

Date of Receipt: 26/07/2023

Date of Startng: 26/07/2023

Date of Completion: 01/08/2023

Date of Reporting: 01/08/2023

Sampling Done By: AAL

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	11-07-2023	CCSU-NHT Heater-FF 101	34	212	1.54	60	9.84
2	11-07-2023	CCSU-NHT Heater-FF 201	35	245	2.34	70	9.10
3	11-07-2023	CCSU-NHT Heater-FF 202	34	207	2.34	70	10.89
4	19-07-2023	CCSU-LP Suction	23	102	2.42	60	8.84
5	19-07-2023	ORCU-RO Header	34	110	2.02	63	13.30
6	11-07-2023	RCU-CO Header	33	172	2.3	67	10.35

TEST RESULT

Sl. No.	Date of Sampling	Detail of Stack/ Unit No.	Particulate Matter (PM)			Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			µg/m ³	µg/L	µg/L	µg/m ³	ppm	µg/L	µg/m ³	ppm	µg/L	µg/m ³	ppm	µg/L	µg/m ³	ppm	µg/L
1	11-07-2023	CCSU-NHT Heater-FF 101	8.1	0.34	8.7	2.87	0.32	112.2	34.78	4.44	25.4	14.72	0.32	100	-	-	
2	11-07-2023	CCSU-NHT Heater-FF 201	8.3	0.43	8.7	2.05	0.48	123.2	36.10	3.09	24.8	14.84	1.34	100	-	-	
3	11-07-2023	CCSU-NHT Heater-FF 202	8.2	0.47	8.2	2.25	0.45	108.4	32.29	3.62	26.2	12.36	2.37	100	-	-	
4	19-07-2023	ORCU-LP Suction	6.8	0.57	10.4	5.44	1.02	288.9	88.98	11.25	18.3	14.8	1.81	100	-	-	
5	19-07-2023	ORCU-RO Header	7.5	0.77	11.3	5.96	1.35	225.6	69.01	15.81	14.2	11.36	1.43	100	-	-	
6	11-07-2023	RCU-CO Header	8.8	0.72	12.5	8.38	1.55	144.7	44.20	13.42	11.4	89.32	5.45	100	-	-	
Permissible Limit (µg/Nm ³)	Gas		70		30			350			150						
	liquid		100		1750			450			200			1			
	PCU		-		-			-			400			-			

10/4/2023


ASHUTOSH SRIVASTAVA
Deputy Technical Manager

Authorized Signatory

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Issued To: M/s Indian Oil Corporation Limited
(Rafsanjia Division)
Panipat Refinery Cracker,
Panipat (Haryana)

Sample Description: Stack Emission

Sampling Method: IS: 11218

Work order Item: Panipat Refinery & PK-PTA (Table C & M)

Report No.: AAL/ENV/2023/07/009

Date of Receipt: 26/07/2023

Date of Starting: 26/07/2023

Date of Completion: 01/08/2023

Date of Reporting: 01/08/2023

Sampling Date By: AAL

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
7	17-07-2023	DHDT-H-01	34	210	1.8	70	9.18
8	17-07-2023	DHDT-H-02	33	240	1.8	70	9.13
9	17-07-2023	MBO Frame G-303-H-281	33	256	1.64	60	9.75
10	17-07-2023	MBO Frame G-303-H-301	35	235	1.64	60	9.56
11	25-07-2023	DHDT-B5 V1 (New)	34	164	1.8	70	9.34
12	18-07-2023	DHDT-B5 V1 (New)	33	138	2.4	59.7	8.81

TEST RESULT

SN	Date of Sampling	Detail of Stack & Unit	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm
7	17-07-2023	DHDT-H-01	4.5	0.31	13.8	4.06	0.54	142.1	69.29	6.55	3.2	2.56	0.15	ND	-	-
8	17-07-2023	DHDT-H-02	4.9	0.23	12.4	8.34	0.58	138.6	67.40	6.44	4.6	3.08	0.21	ND	-	-
9	17-07-2023	MBO Frame G-303-H-281	4.8	0.23	20.3	7.11	0.83	108.7	32.93	4.42	18.3	14.8	0.75	ND	-	-
10	17-07-2023	MBO Frame G-303-H-301	4.3	0.23	11.8	1.89	0.90	118.4	57.66	4.91	14.5	11.8	0.60	ND	-	-
11	25-07-2023	DHDT-B5 V1 (New)	4.5	0.24	8.5	2.98	0.38	145.3	70.73	8.25	7.5	6.0	0.43	ND	-	-
12	18-07-2023	DHDT-B5 V1 (New)	4.0	0.77	8.7	3.03	1.48	109.8	48.95	13.48	1.2	0.54	1.59	ND	-	-
Permissible limit (mg/Nm ³)	Gas		10		10			350			100					
	liquid		100		1700			450			200					
	PCCL		-		-			-			400					

APR/2023/004


ASHUTOSH SRIVASTAVA
Deputy Technical Manager

Authorised Signatory

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TEST CERTIFICATE

Page 1 of 3

Client To: My Indian Oil Corporation Limited
(Refinery Division)
Punjab, Noida Cracker,
Panipat (Haryana)

Sample Description: Stack Emission

Sampling Method: IS-1253

Work order Item: Punjab Refinery & PX-PTA (Table A & B)

Report No.: AAL/ENV/2023/12699

Date of Receiving: 26/07/2023

Date of Starting: 26/07/2023

Date of Completion: 01/08/2023

Date of Reporting: 01/08/2023

Sampling Done By: A.A.

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
13	20-07-2023	HRSG-01	31	174	3.3	55	0.43
14	21-07-2023	HRSG-02	34	146	3.3	70	5.08
15	21-07-2023	HRSG-03	31	152	3.3	70	8.74
16	21-07-2023	HRSG-04	34	133	3.3	70	5.08
17	21-07-2023	HRSG-05	34	103	3.3	70	10.01
18	26-07-2023	CPP-VIB-1	32	145	3.34	100	0.38
19	26-07-2023	CPP-VIB-3	32	155	3.34	100	6.77

TEST RESULT

SN	Date of Sampling	Detail of Stack / Unit	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	ppm	ppb	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb	
13	20-07-2023	HRSG-01	7.4	7.30	6.9	2.62	1.30	206.4	119.00	46.57	2.5	1.00	0.47	ND	-	-
14	21-07-2023	HRSG-02	6.2	1.00	7.2	1.52	1.33	155.2	75.58	28.71	2.8	2.24	0.32	ND	-	-
15	21-07-2023	HRSG-03	6.8	1.25	6.4	2.94	1.54	166.1	81.86	30.88	2.3	1.64	0.42	ND	-	-
16	21-07-2023	HRSG-04	6.1	1.20	6.8	1.12	1.75	185.3	80.25	30.53	2.7	2.16	0.23	ND	-	-
17	21-07-2023	HRSG-05	5.8	1.74	6.8	2.38	1.33	194.8	94.26	38.18	2.9	2.32	0.57	ND	-	-
18	26-07-2023	CPP-VIB-1	6.9	1.45	6.2	2.17	1.30	205.6	100.12	43.12	3.6	2.88	0.76	ND	-	-
19	26-07-2023	CPP-VIB-3	7.2	1.37	5.3	2.50	1.27	224.7	109.42	42.13	3.4	2.72	0.64	ND	-	-
Possible limits (mg/Nm ³)			Gas	10	50	50	350	150	-	-	-	-	-	-	-	-
			Liquid	100	1500	450	-	-	-	-	-	-	-	-	-	-
			ECCT	-	-	-	-	-	-	-	-	-	-	-	-	-

HR/08/2023

ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To: MPT Indian Oil Corporation Limited
(Refineries Division)
Petrop Naphtha Cracker,
Feroze (Haryana)

Sample Description: Stack Emission
Sampling Method: IS:12255
Work order Item: Feroze Refinery & PX-PCA (Table-E & F)

Report No.: AAL/ENV/20230126009

Date of Receiving: 26/07/2023

Date of Sampling: 26/07/2023

Date of Completion: 01/08/2023

Date of Reporting: 01/08/2023

Sampling Date By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/min)
20	28-07-2023	CPN-VIB-2	33	162	3.34	110	8.94
21	17-07-2023	MSQ Furne (S-301-H-10)	34	237	1.64	60	8.94
22	20-07-2023	104-02	33	191	3.04	100	9.44
23	11-07-2023	RFCC Feed Heater	34	194	2.1	67	10.13
24	25-07-2023	HGU-16	32	103	3.4	60	8.75
25	25-07-2023	HGU-77	32	167	3.4	60	9.37

TEST RESULT

S/N	Date of Sampling	Detail of Stack Unit-#	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb
20	28-07-2023	CPN-VIB-2	76	1.41	8.6	3.03	1.60	226.4	119.25	42.11	4.3	3.6	0.84	ND	-	-
21	17-07-2023	MSQ Furne (S-301-H-10)	4.7	0.19	21.6	7.36	0.85	115.2	36.15	4.55	12.5	10	0.49	ND	-	-
22	20-07-2023	104-02	8.2	1.32	9.5	1.13	1.32	207.5	101.04	23.28	3.6	3.48	0.90	ND	-	-
23	11-07-2023	RFCC Feed Heater	8.1	0.64	13.4	4.69	1.05	115.4	55.20	8.90	6.7	5.36	0.13	ND	-	-
24	25-07-2023	HGU-16	7.2	1.08	7.8	3.06	1.44	127.8	47.10	26.77	3.2	4.18	1.03	ND	-	-
25	25-07-2023	HGU-77	4.3	1.08	8.4	2.94	1.70	185.6	80.64	35.45	4.8	3.84	0.47	ND	-	-
Permissible Limits (mg/Nm³)		Gas	10		50			300			150			-		
		liquid	100		1500			400			200			5		
		PCDD	-		-			-			400			-		

MS-10/0000

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Deputy Technical Manager
Authorised Signatory

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Page 1 of 5

Issued To: MN Infra Oil Corporation Limited
(Refinery Division)
Panipat Refinery Complex,
Panipat (Haryana)

Sample Description: Stack Emission

Sampling Method: IS 11225

Work order No.: Panipat Refinery & EN-PTA (Table-C & M)

Report No.: AAL/ENV/2022/02049

Date of Receipt: 26/07/2022

Date of Starting: 26/07/2022

Date of Completion: 01/08/2022

Date of Reporting: 01/08/2022

Sampling Done By: AAL

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
26	24-07-2022	HCU-015	33	138	1.7	80	5.30
27	24-07-2022	AVU-01	34	123	3.1	100	6.20
28	24-07-2022	AVU-02	34	143	3.1	100	7.63
29	15-07-2022	HCU	33	132	1.3	10	5.68
30	24-07-2022	DCU/Heater	34	147	3	50	5.49

TEST RESULT

SN	Date of Sampling	Detail of Stack+ Unit+	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	ppm	ppm	ppm	ppm	µg/m ³	ppm	µg/m ³	ppm	ppm
26	24-07-2022	HCU-015	7.8	0.43	9.4	3.29	0.32	102.4	49.89	3.61	3.6	4.48	2.8	ND	-	-
27	24-07-2022	AVU-01	6.8	2.52	7.6	2.66	3.81	123.6	60.67	16.12	4.2	3.36	4.2	ND	-	-
28	24-07-2022	AVU-02	6.4	2.39	8.3	2.98	3.32	108.9	43.73	42.59	3.8	3.04	2.8	ND	-	-
29	15-07-2022	HCU	5.0	0.10	2.8	2.73	0.29	127.8	62.28	4.03	3.3	2.8	3.3	ND	-	-
30	24-07-2022	DCU/Heater	7.8	1.34	18.2	5.09	2.23	141.5	67.29	21.26	5.9	4.72	5.9	ND	-	-
Particulate Matter (mg/Nm ³)			TD	34	350			450			150			-		
			Spaid	100	1700			450			230			3		
			PCCU	-	-			-			100			-		

End of Report

Result:

Total Sulphur (as Sulphur Dioxide) (mg/Nm³) IS 11225 (2)-1985, Sulphur Dioxide (as SO₂) IS 11225 (2)-1985, Oxide of Nitrogen (as NO_x) IS 11225 (2)-1985, Carbon Monoxide (as CO) IS 11225 (2)-1985, Nickel & Vanadium (as Ni & V) IS 11225 (2)-1985.


ASHUTOSH GRIVA
Deputy Technical Manager
Authorized Signatory

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Issued To: M/s India Oil Corporation Limited
(Refineries Division)
Panipat Naphtha Cracker,
Panipat (Haryana)

Report No.: AAL/ENV-20230726010

Sample Description: Stack Emission

Date of Receipt: 26/07/2023

Sampling Method: IS:11255

Date of Starting: 26/07/2023

Work order from: Panipat Refinery (Table-F)

Date of Completion: 01/08/2023

Date of Reporting: 01/08/2023

Sampling Done By: AAL

STACK DETAILS

Sl. No.	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	19/07/2023	SHU-26	32	183	1.8	20.0	9.56
2	19/07/2023	SHU-37	32	168	1.8	20.0	9.39

TEST RESULT

Sl. No.	Date of Sampling	Detail of Stack	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	µg/l	mg/m ³	ppm	µg/l	mg/m ³	ppm	µg/l	mg/m ³	ppm	µg/l
1	19/07/2023	SHU-26	8.2	16.2	0.51	21.6	10.52	8.2	60	72.0	1.56	ND	ND	ND
2	19/07/2023	SHU-37	8.8	8.1	0.52	22.4	12.17	8.1	66	75.2	1.02	ND	ND	ND
Permissible limits (mg/stack)			75			250			100			15		

End of Report

Remarks:

Test Method - Sulphur Dioxide (as SO₂) IS 11219(P-1)-1993, Oxide of Nitrogen (as NO_x) IS 11255(P-7)-2006, Carbon Monoxide (as CO) IS 11259-1992, Hydrogen Sulphide (as H₂S) IS 11255(P-7)-2005.


ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorised Signatory

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Report No. AAL ENV-20230825002

Issued To: **M/s Indian Oil Corporation Limited**
 (Refinery Division)
 Panipat Naphtha Cracker,
 Panipat (Haryana)

Date of Receiving: 25/08/2023

Date of Starting: 25/08/2023

Sample Description: Stack Emission

Date of Completion: 30/08/2023

Sampling Method: IS:11253

Date of Reporting: 30/08/2023

Wack order Item: Panipat Refinery (Table-F)

Sampling Done By: AAL

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	25/08/2023	SRI-26	33	174	1.0	30.0	10.92
2	25/08/2023	SRI-37	35	181	1.0	30.0	10.57

TEST RESULT

SN	Date of Sampling	Detail of Stack	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	25/08/2023	SRI-26	24.6	26.1	3.39	24.3	11.84	1.76	85.0	68.4	6.00	ND	ND	ND
2	25/08/2023	SRI-37	43.7	20.3	3.78	38.6	13.89	1.96	89.7	71.8	6.18	ND	ND	ND
Permissible limits (ug/No3)			105			350			150			13		

End of Report

Remarks:
 Test Method - Sulphur Dioxide (as SO₂) IS 11253(P1)-1983, Oxide of Nitrogen (as NO_x) IS 11253(P1)-2003,
 Carbon Monoxide (as CO) IS 11253-1982, Hydrogen Sulphide (H₂S) IS 11253(P4)-2003.

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 Deputy Technical Manager
 Authorised Signatory

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Issued To: M/s Indian Oil Corporation Limited
(Refinery Division)
Patal Nephtha Cracker,
Faridkot (Haryana)

Sample Description: Stack Emission

Sampling Method: IS-1125

Work order from: Patal Refinery & PTA (Table 2 & 3)

Report No.: AAL/ENV/2023/022045

Date of Receipt: 13/09/2023

Date of Starting: 15/09/2023

Date of Completion: 30/09/2023

Date of Reporting: 30/09/2023

Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	13/09/2023	CCRU NHF Heater FF 101	34	208	1.24	40	10.11
2	13/09/2023	CCRU NHF Heater FF 201	34	236	2.24	30	8.31
3	13/09/2023	CCRU NHF Heater FF 205	33	232	2.34	31	10.56
4	13/09/2023	ORCO-4-P Section	34	173	2.42	63	9.74
5	12/09/2023	ORCO-60 Heater	34	203	2.42	43	10.39
6	12/09/2023	RFCO-EO Boiler	35	179	3.1	67	10.66

TEST RESULT

S/N	Date of Sampling	Detail of Stack Unit →	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)		Oxide of Nitrogen (NOx)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)			
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	13/09/2023	CCRU NHF Heater FF 101	8.6	0.28	10.2	3.88	0.42	18.2	52.76	4.43	21.51	17.25	0.88	ND	-	-
2	13/09/2023	CCRU NHF Heater FF 201	6.9	0.38	9.6	3.26	0.81	119.4	34.39	14.02	25.8	18.02	1.88	ND	-	-
3	13/09/2023	CCRU NHF Heater FF 205	8.8	0.78	8.6	4.41	0.73	121.5	39.68	30.94	22.4	17.51	2.02	ND	-	-
4	12/09/2023	ORCO-4-P Section	2.8	0.89	9.8	3.88	1.02	112.4	33.32	11.81	28.9	18.31	2.19	ND	-	-
5	12/09/2023	ORCO-60 Heater	8.4	1.02	10.9	3.81	1.18	158.5	43.64	13.10	17.4	11.89	1.86	ND	-	-
6	12/09/2023	RFCO-EO Boiler	8.9	0.78	11.6	4.25	1.12	171.6	41.39	34.17	36.4	27.12	2.96	ND	-	-
Permissible limits (mg/Nm ³)	Gas		10		50			350			150					
	Liquid		100		1700			450			200					
	HEPA		-		-			-			800					

MS-02/2022

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To: M/s Indian Oil Corporation Limited
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Punjab Refinery Co. Ltd.,
Punjab (Haryana)

Sample Description: Stack Emission

Sampling Method: IS 11359

Work order Item: Punjab Refinery & PX-PIA (Table-E & M)

Report No.: AAL ENV-302902345

Date of Receiving: 23/09/2023

Date of Starting: 23/09/2023

Date of Completion: 30/09/2023

Date of Reporting: 30/09/2023

Sampling Done By: AAL

STACK DETAILS

SN	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
7	10/09/2023	DHDT-06-01	33	247	1.8	70	9.82
8	10/09/2023	DHDT-06-02	34	241	1.8	70	9.76
9	11/09/2023	MNQ Prime G-303-01-201	34	242	1.64	60	10.38
10	11/09/2023	MNQ Prime G-303-01-301	33	243	1.64	60	9.80
11	22/09/2023	DHDT-06 VI (New)	24	156	1.8	70	9.46
12	23/09/2023	HGU-06 VI (New)	34	181	2.4	32.7	8.59

TEST RESULT

SN	Date of Sampling	Detail of Stack Unit	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Stack & Ventilation (as N & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	ppm	ppm	mg/m ³	ppm	µg/m ³	ppm	ppm	ppm	ppm
7	10/09/2023	DHDT-06-01	4.8	0.10	11.4	3.64	0.52	149.6	72.85	7.51	4.1	2.21	0.20	ND	-	-
8	10/09/2023	DHDT-06-02	4.0	0.20	11.8	4.12	0.59	134.5	65.63	6.79	3.2	4.25	0.21	ND	-	-
9	11/09/2023	MNQ Prime G-303-01-201	4.5	0.21	22.2	7.81	0.95	113.1	55.00	4.82	12.4	11.31	0.64	ND	-	-
10	11/09/2023	MNQ Prime G-303-01-301	4.8	0.20	24.6	8.29	1.02	127.8	62.21	5.33	16.2	13.05	0.65	ND	-	-
11	22/09/2023	DHDT-06 VI (New)	6.7	0.27	9.8	3.37	0.29	152.4	74.26	8.02	8.7	6.98	0.51	ND	-	-
12	23/09/2023	HGU-06 VI (New)	4.9	1.03	10.4	3.43	2.14	106.3	50.81	21.92	8.9	5.51	1.62	ND	-	-
Permissible limits (mg/Nm ³)			10	-	50	-	-	350	-	-	100	-	-	-	-	-
			100	-	1750	-	-	450	-	-	200	-	-	±	-	-
			-	-	-	-	-	-	-	-	400	-	-	-	-	-

AP/06/2023

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To: M/s Indian Oil Corporation Limited
(Refinery Division)
Paripat Naphtha Cracker,
Paripat (Haryana)

Sample Description: Stack Emission
Sampling Method: IS 11251
Work order Item: Paripat Refinery & PX-PTA (T04E-E & M)

Report No.: AAL/ENV-2023/023045

Date of Receipt: 23/09/2023

Date of Starting: 23/09/2023

Date of Completion: 30/09/2023

Date of Reporting: 30/09/2023

Sampling Done By: AAL

STACK DETAILS

Sl. No.	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
13	23/09/2023	HRSG-01	34	182	3.3	65	16.66
14	24/09/2023	HRSG-02	34	153	3.3	70	9.17
15	25/09/2023	HRSG-03	34	148	3.3	70	9.31
16	26/09/2023	HRSG-04	33	146	3.3	70	9.32
17	21/09/2023	HRSG-08	34	154	3.3	70	9.84
18	21/09/2023	CPP-V07.3	34	161	1.54	100	10.11

TEST RESULT

Sl. No.	Date of Sampling	Detail of Stack Unit	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)		Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)			
			mg/m ³	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³	ppm	µg/m ³		
13	23/09/2023	HRSG-01	8.1	1.70	7.4	3.29	1.55	218.6	116.22	50.07	3.2	2.56	0.67	ND	-	-
14	24/09/2023	HRSG-02	7.4	1.32	7.8	2.72	1.60	163.4	99.56	33.47	2.6	2.08	0.53	ND	-	-
15	25/09/2023	HRSG-03	7.2	1.59	9.3	3.22	1.82	145.5	89.61	34.31	2.9	2.32	0.60	ND	-	-
16	26/09/2023	HRSG-04	5.5	1.18	6.1	2.83	1.64	171.3	87.44	34.77	1.8	1.72	0.40	ND	-	-
17	21/09/2023	HRSG-08	6.2	1.24	7.2	2.52	1.41	141.6	89.33	36.64	1.8	1.72	0.67	ND	-	-
18	21/09/2023	CPP-V07.3	6.9	1.47	6.8	2.38	1.43	205.7	100.19	43.86	2.7	2.16	0.59	ND	-	-
Permissible limits (mg/Nm ³)			Gas	10	10			200			150					
			liquid	100	1700			450			250			3		
			BCCU	-	-			-			490			-		

10/10/2023

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To: M/s Indian Oil Corporation Limited
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Punjab Refinery Cracker,
Panipat (Haryana)

Sample Description: Stack Emission

Sampling Method: IS 11231

Work order No.: Punjab Refinery & JV/PTA (Table-C & M)

Report No.: AAL ENV-2023081045

Date of Receipt: 21/08/2023

Date of Starting: 23/08/2023

Date of Completion: 25/08/2023

Date of Reporting: 30/08/2023

Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
19	14/08/2023	OilDS Stack	34	228	1.25	60	10.32
20	11/08/2023	MSQ Furnace Q-381-45-101	34	218	1.84	60	10.31
21	21/08/2023	UB-02	34	182	3.04	180	9.92
22	12/08/2023	R FCC Feed Flank	35	188	2.1	67	10.25
23	18/08/2023	EGU-76	34	193	2.4	60	9.71
24	18/08/2023	EGU-77	34	172	2.4	95	10.24

TEST RESULT

S/N	Date of Sampling	Detail of Stack/Train	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	µg/m ³	ppm	µg/m ³	ppm	ppb	ppm	ppm	ppb	ppm	ppm	ppb	
19	14/08/2023	OilDS Stack	4.8	0.18	7.2	2.62	0.20	83.9	41.84	2.23	2.1	2.68	0.08	ND	-	-
20	11/08/2023	MSQ Furnace Q-381-45-101	4.5	0.22	18.4	6.44	0.85	118.6	27.77	5.49	10.4	8.52	0.48	ND	-	-
21	25/08/2023	UB-02	7.8	1.29	10.3	3.60	1.30	223.4	108.82	36.93	6.2	4.95	1.03	ND	-	-
22	12/08/2023	R FCC Feed Flank	7.3	1.31	18.1	4.22	2.04	119.6	55.26	20.16	5.3	6.24	0.89	ND	-	-
23	18/08/2023	EGU-76	8.9	1.77	9.2	3.22	1.94	142.6	68.93	30.53	4.6	3.68	0.97	ND	-	-
24	18/08/2023	EGU-77	9.8	2.14	6.6	2.38	1.48	152.3	74.18	33.29	4.3	3.44	0.94	ND	-	-
Permissible limits (mg/Nm ³)		Gas	10	-	50	-	-	150	-	-	130	-	-	-	-	-
		Liquid	100	-	1700	-	-	430	-	-	200	-	-	3	-	-
		FCC	-	-	-	-	-	-	-	-	400	-	-	-	-	-

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Panipat Refinery Complex,
Panipat (Haryana)

Sample Description: Stack Emission

Sampling Method: IS:11227

Work order Item: Panipat Refinery & PZ (PIA) (Table C & M)

Report No.: AAL ENV-20230623045

Date of Receipt: 23/06/2023

Date of Starting: 23/06/2023

Date of Completion: 30/06/2023

Date of Reporting: 30/06/2023

Sampling Item By: AAL

STACK DETAILS

S/N	Date of Sampling	Ident of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
25	19/06/2023	HCU-P25	34	142	1.7	50	0.89
26	11/06/2023	AVU-01	34	129	5.1	100	1.88
27	14/06/2023	AVU-02	33	136	5.1	100	1.85
28	18/06/2023	HCU	34	138	1.3	73	0.29
29	23/06/2023	DGE Heater	15	145	3	75	0.81

TEST RESULT

S/N	Date of Sampling	Ident of Stack (Idr-#)	Permissible Limits (PAL)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	ppm	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb	mg/m ³	ppm	ppb
25	19/06/2023	HCU-P25	8.7	0.19	7.2	2.52	0.61	116.7	57.82	6.71	4.3	3.44	0.24	ND	-	-
26	11/06/2023	AVU-01	7.8	3.20	8.4	2.98	2.51	132.4	64.49	15.38	4.8	3.51	2.01	ND	-	-
27	14/06/2023	AVU-02	7.3	2.98	8.2	2.25	2.51	114.3	55.71	46.80	3.2	2.58	1.31	ND	-	-
28	18/06/2023	HCU	6.0	0.18	8.0	3.11	0.27	132.3	64.64	3.97	4.3	3.44	0.13	ND	-	-
29	23/06/2023	HCU Heater	5.8	0.90	13.6	4.70	2.11	147.4	71.10	22.92	3.1	4.08	0.70	ND	-	-
Permissible Limits (mg/No ³)			Gas		50		750		150							
			Liquid		100		1700		350		200		3			
			ECCV		-		-		-		400					

End of Report

Remarks:

For Method - Sulphur Dioxide (as SO₂) IS:11217(P)-1982, Sulphur Trioxide (as SO₃) IS:1205(P)-1982, Oxide of Nitrogen (as NO_x) IS:11219(P)-2003, Carbon Monoxide (as CO) IS:11218(P)-1982, Nickel & Vanadium IS:2096 Method 20 by AAL

Ashu Toshi Srivastava
ASHU TOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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(Refinery Division)
Farqat Naftha Cracker,
Farqat (Haryana)

Report No.: AAL ENV-202302046

Sample Description: Stack Emission

Date of Receiving: 23/09/2023

Sampling Method: IS 11235

Date of Starting: 23/09/2023

Work order Item: Farqat Refinery (Table-F)

Date of Completion: 30/09/2023

Date of Reporting: 30/09/2023

Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	23/09/2023	SD-26	34	182	1.9	70.8	10.10
2	25/09/2023	SD-37	34	158	1.9	70.8	10.17

TEST RESULT

S/N	Date of Sampling	Detail of Stack Unit	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	23/09/2023	SD-26	79.4	11.77	8.27	28.1	13.88	1.87	182	44.04	0.11	ND	ND	ND
2	25/09/2023	SD-37	85.8	12.78	8.00	33.4	16.27	2.23	181.9	44.72	0.11	ND	ND	ND
Prescribed Limits (mg/m ³)			NS			100			100			15		

End of Report

Remarks:

One Method - Sulphur Dioxide (as SO₂) (F) (2019) 2+1000, Oxide of Nitrogen (as NO_x) (F) (2019) 2+1000,
Carbon Monoxide (as CO) (F) (2019) 1952, Hydrogen Sulphide (as H₂S) (F) (2019) 2+1000.

ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To: M/s Indian Oil Corporation Limited
(Refineries Division)
Panipat Naphtha Cracker,
Panipat (Haryana).

Report No.: AAL/ENV/2023/018039

Sample Description: Stack Emission

Date of Receiving: 18/10/2023

Sampling Method: IS:11255

Date of Startings: 18/10/2023

Work order No.: Panipat Refinery (Table-F)

Date of Completion: 23/10/2023

Date of Reporting: 23/10/2023

Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	17/10/2023	SRI-24	30	158	1.9	70.0	18.56
2	17/10/2023	SRI-27	30	112	1.9	70.0	18.49

TEST RESULT

S/N	Date of Sampling	Detail of Stack	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	17/10/2023	SRI-24	190.2	52.54	18.41	30.7	14.55	2.13	72.9	38.32	5.05	ND	ND	ND
2	17/10/2023	SRI-27	157.2	51.60	18.98	34.5	16.80	2.41	85.3	68.24	5.63	ND	ND	ND
Permissible limits (mg/Nm³)			50			300			150			15		

Permissible limits are as specified.

****End of Report****

Remarks:

Test Method - Sulphur Dioxide (as SO₂) (IS:17997-2)-1987, Oxide of Nitrogen (as NO_x) (IS:12517-1)-2003, Carbon Monoxide (as CO) (IS:13274-1992), Hydrogen Sulphide (as H₂S) (IS:11251-1)-2005.

ANURAG PRAKASH SRIVASTAVA
Deputy Technical Manager
Authorised Signatory

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Issued To: M/s Indian Oil Corporation Limited
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Panipat Naphtha Cracker, Panipat (Haryana)

Report No.: AAL/ENV/2023/122006

Sample Description: Stack Emission
Sampling Method: IS-11233
Work order Item: Panipat Refinery & PX-PTA (Table-E & M)

Date of Receipt: 22/11/2023
Date of Starting: 22/11/2023
Date of Completion: 29/11/2023
Date of Reporting: 29/11/2023
Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	09/11/2023	HRSG-01	27	158	3.3	65	9.50
2	09/11/2023	HRSG-02	27	143	3.3	70	8.69
3	09/11/2023	HRSG-03	27	148	3.3	70	8.11
4	09/11/2023	HRSG-04	27	135	3.3	70	8.07
5	07/11/2023	HRSG-05	27	170	3.3	70	8.31
6	07/11/2023	CPN-VHP-2	27	155	3.34	100	9.18
7	07/11/2023	CPN-VHP-3	27	151	3.34	100	9.14
8	07/11/2023	UB-01	27	165	3.04	100	9.26
9	08/11/2023	MSQ/Prefer (S-50)(44-30)	28	222	1.64	40	8.57
10	08/11/2023	MSQ/Prefer (S-50)(44-30)	28	230	1.64	40	10.25

TEST RESULT

S/N	Date of Sampling	Detail of Stack Unit-A	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	09/11/2023	HRSG-01	2.9	3.32	7.3	2.33	1.41	240.5	177.73	46.29	2.8	2.54	0.54	ND	-	-
2	09/11/2023	HRSG-01	4.0	3.27	3.6	2.66	3.42	165.3	81.32	30.83	3.1	2.45	0.58	ND	-	-
3	09/11/2023	HRSG-03	2.3	1.41	8.8	3.08	1.39	134.9	77.40	30.71	2.9	2.52	0.56	ND	-	-
4	09/11/2023	HRSG-04	9.9	1.38	8.2	2.07	1.61	181.6	88.48	35.63	3.2	2.54	0.63	ND	-	-
5	07/11/2023	HRSG-05	6.9	1.38	7.6	2.44	1.41	194.5	96.66	36.72	2.7	2.96	0.69	ND	-	-
6	07/11/2023	CPN-VHP-2	8.2	1.61	9.2	2.22	1.81	203.2	100.46	40.90	4.9	3.92	0.96	ND	-	-
7	07/11/2023	CPN-VHP-3	7.1	1.46	7.8	2.60	1.50	194.5	103.46	42.30	2.7	2.34	0.73	ND	-	-
8	07/11/2023	UB-01	8.7	1.40	8.1	3.18	1.40	216.4	102.48	33.83	6.8	3.41	1.09	ND	-	-
9	08/11/2023	MSQ/Prefer G.20146-101	4.2	0.18	18.9	6.61	8.75	124.8	60.79	4.58	14.6	11.88	0.51	ND	-	-
10	08/11/2023	MSQ/Prefer G.20146-101	4.7	0.24	21.8	3.65	1.14	112.6	54.99	3.88	20.4	16.32	1.86	ND	-	-
Permissible limits (mg/Nm ³)			GM	10	50			320			150					
			µg/m ³	100	1700			420			200			5		
			PCCU	-	-	-	-	-	-	-	-	400	-	-	-	-

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorised Signatory

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Issued To: M/s Indian Oil Corporation Limited
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Paripat Naphtha Cracker, Paripat (Haryana)

Report No.: AAL-ENV-20231122006

Sample Description: Stack Emission
Sampling Method: IS-1125
Work order Item: Purge Refinery & PX-PTA (Table E & M)

Date of Receiving: 22/11/2023
Date of Starting: 22/11/2023
Date of Completion: 29/11/2023
Date of Reporting: 29/11/2023
Sampling Done by: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
11	08/11/2023	MSQ Purga G-203-H-301	24	232	1.61	60	10.87
12	08/11/2023	DCU Purga	24	142	2	70	8.89
13	09/11/2023	DHDT-H-01	24	336	1.8	70	10.11
14	09/11/2023	DHDT-H-12	24	245	1.8	70	8.70
15	09/11/2023	AYU-02	27	136	3.1	100	7.55
16	09/11/2023	DCU	27	147	1.3	70	9.42
17	17/11/2023	HGU-76	27	152	2.4	60	8.88
18	17/11/2023	HGU-77	27	163	2.4	60	8.97
19	17/11/2023	HGU-705	27	134	1.7	60	9.30
21	18/11/2023	GHG/GAG Purga	28	204	2.62	63	10.07

TEST RESULT

S/N	Date of Sampling	Detail of Stack Unit-a	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NOx)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
11	08/11/2023	MSQ Purga G-203-H-301	4.8	0.21	23.8	7.90	0.48	122.9	79.80	5.41	10.7	11.30	0.72	ND	-	-
12	08/11/2023	DCU Purga	6.6	0.44	13.1	5.33	2.35	138.9	67.60	23.20	6.2	4.90	1.10	ND	-	-
13	08/11/2023	DHDT-H-01	4.8	0.24	10.2	3.60	0.34	136.8	66.61	1.22	3.1	2.46	0.26	ND	-	-
14	08/11/2023	DHDT-H-12	4.2	0.21	10.9	3.81	0.34	132.4	64.48	6.89	4.3	3.44	0.21	ND	-	-
15	09/11/2023	AYU-02	6.9	2.86	8.2	2.86	2.44	112.7	54.90	46.74	4.2	3.36	1.74	ND	-	-
16	09/11/2023	DCU	6.2	0.18	4.1	2.43	0.25	124.8	65.31	4.10	3.8	3.12	3.12	ND	-	-
17	17/11/2023	HGU-76	7.7	1.23	7.9	2.75	1.26	140.2	68.31	28.18	5.5	4.72	1.11	ND	-	-
18	17/11/2023	HGU-77	7.9	1.63	8.3	2.87	1.35	172.8	84.17	36.17	5.7	4.28	1.11	ND	-	-
19	17/11/2023	HGU-705	7.4	0.40	8.1	2.97	0.46	96.3	46.31	3.22	5.9	4.72	0.20	ND	-	-
21	18/11/2023	GHG/GAG Purga	8.1	0.82	14.3	5.07	1.47	132.6	64.33	13.44	11.9	11.12	1.41	ND	-	-
Predictable limits (mg/Nm ³)	Gas		10		50			500			170					
	Liquid		100		1700			450			200					
	SOLIDS		-		-			-			400					

Reference: IS-1125

Ashutosh Srivastava
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Deputy Technical Manager
Authorised Signatory

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Paripat-Naphtha Cracker, Paripat (Haryana)

Report No.: AAL/ENV/2023/1122006

Sample Description: Stack Emission
Sampling Method: IS:11215
Work order Item: Pumped Refinery & PX-PTA (Table 5 & 6)

Date of Receiving: 22/11/2023
Date of Starting: 22/11/2023
Date of Completion: 29/11/2023
Date of Reporting: 29/11/2023
Sampling Done By: AAL

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flow Gas Velocity (m/sec)
21	18/11/2023	GHCU-LP Section	28	155	2.42	63	9.27
22	18/11/2023	EHCC-CO Boiler	28	165	2.1	67	10.16
23	18/11/2023	EHCC Feed Heater	27	190	2.1	67	9.74
24	20/11/2023	CCRU NH3 Heater-PT 101	27	208	1.54	40	9.93
25	20/11/2023	CCRU NH3 Heater-PT 201	27	230	2.34	70	10.21
26	20/11/2023	CCRU NH3 Heater-PT 202	27	260	2.34	70	10.55
27	20/11/2023	A-VI-01	27	123	3.1	100	7.82
28	21/11/2023	EHCC-BS VI (New)	27	139	1.8	70	9.49
29	21/11/2023	EHCC-BS VI (New)	27	156	2.4	92.5	8.73
30	21/11/2023	EHCC Stack	27	224	1.23	60	10.82

TEST RESULT

S/N	Date of Sampling	Detail of Stack & Height	Particulate Matter (PM)		Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Nickel & Vanadium (as Ni & V)		
			mg/m ³	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
21	18/11/2023	GHCU-LP Section	7.4	0.71	12.9	4.37	1.30	118.4	57.67	22.32	20.3	18.24	2.11	ND	-	-
22	18/11/2023	EHCC-CO Boiler	4.2	0.78	13.6	4.75	1.34	138.1	72.61	13.27	119.4	93.20	10.02	ND	-	-
23	18/11/2023	EHCC Feed Heater	4.0	0.84	12.7	4.41	0.97	118.3	57.62	9.20	6.9	3.32	0.32	ND	-	-
24	20/11/2023	CCRU NH3 Heater-PT 101	8.8	0.76	8.8	2.80	0.35	108.3	83.73	4.43	24.3	19.60	0.98	ND	-	-
25	20/11/2023	CCRU NH3 Heater-PT 201	8.9	0.79	8.1	2.84	0.82	108.7	57.82	10.69	27.4	21.62	2.47	ND	-	-
26	20/11/2023	CCRU NH3 Heater-PT 202	8.9	0.79	8.4	2.94	0.75	112.9	54.99	10.03	23.8	18.24	2.03	ND	-	-
27	20/11/2023	A-VI-01	6.5	2.74	7.4	2.09	3.12	103.9	57.02	30.11	4.9	2.81	2.07	ND	-	-
28	21/11/2023	EHCC-BS VI (New)	4.2	0.56	8.8	3.11	4.32	140.7	68.53	4.22	7.9	8.84	0.43	ND	-	-
29	21/11/2023	EHCC-BS VI (New)	4.4	0.82	8.2	2.97	1.78	104.2	66.80	20.13	8.9	7.12	1.72	ND	-	-
30	21/11/2023	EHCC Stack	5.3	0.13	8.2	2.87	0.22	81.7	39.82	2.28	3.8	2.04	0.11	ND	-	-
Permissible Limits (mg/m ³)			Gas	10	50	500	100	150	150	-	-	-	-	-	-	-
			liquid	100	1500	400	-	-	-	-	-	-	-	-	-	-
			EHCCU	-	-	-	-	-	-	-	-	-	-	-	-	-

End of Report

Test Method - Particulate Matter (as PM10) IS 11251(P-1)-1985, Sulphur Dioxide (as SO₂) IS 11255(P-2)-1981, Oxide of Nitrogen (as NO_x) IS 11256(P-3)-2021, Carbon Monoxide (as CO) IS 13210-1992, Nickel & Vanadium ISISPA Method 29 by AAS

Ashutosh Srivastava
ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorised Signatory

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Panipat Naphtha Cracker,
Panipat (Haryana)

Report No. **AAL ENV-2023121001**

Sample Description: **Stack Emission**

Date of Receiving: **24/11/2023**

Sampling Method: **IS-11235**

Date of Startng: **24/11/2023**

Work order Item: **Panipat Refinery (Table-F)**

Date of Completion: **25/11/2023**

Date of Reporting: **29/11/2023**

Sampling Done By: **AAL**

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/sec)
1	23/11/2023	SRU-26	26	175	1.9	70.0	10.61
2	23/11/2023	SRU-27	26	170	1.9	70.0	10.55

TEST RESULT

S/N	Date of Sampling	Detail of Stack	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³	mg/m ³	ppm	µg/m ³
1	23/11/2023	SRU-26	148.7	51.31	19.28	34.3	16.88	2.42	76.8	61.44	5.38	ND	ND	ND
2	23/11/2023	SRU-27	161.3	56.42	11.35	36.3	18.66	2.70	81.5	65.20	5.75	ND	ND	ND
Permissible Limits (mg/m ³)			55			350			150			13		

End of Report

Remarks

Test Method : Sulphur Dioxide (as SO₂) IS 11250(I)-1983, Oxide of Nitrogen (NO_x) IS 11250(I)-1983,
Carbon Monoxide (as CO) IS 11270-1995, Hydrogen Sulphide (as H₂S) IS 11250(I)-1983.


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Deputy Technical Manager,
Authorised Signatory

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Issued To: **Ms Indian Oil Corporation Limited**
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Panipat Refinery Cracker
Panipat (Haryana)

Report No. **AALENY-20231221003**

Sample Description: **Stack Emission**

Date of Receiving: **21/12/2023**

Sampling Method: **IS 11235**

Date of Startng: **21/12/2023**

Work order from: **Panipat Refinery (Table-F)**

Date of Completion: **26/12/2023**

Date of Reporting: **26/12/2023**

Sampling Done By: **AAI**

STACK DETAILS

S/N	Date of Sampling	Detail of Stack	Ambient Temp. (°C)	Stack Temp. (°C)	Stack Dia. (m)	Stack Height (m)	Flue Gas Velocity (m/min)
1	29/12/2023	SRU-26	34	172	1.9	70.0	10.81
2	26/12/2023	SRU-27	34	170	1.9	70.0	10.36

TEST RESULT

S/N	Date of Sampling	Detail of Stack	Sulphur Dioxide (SO ₂)			Oxide of Nitrogen (NO _x)			Carbon Monoxide (as CO)			Hydrogen Sulphide (as H ₂ S)		
			mg/m ³	ppm	ug/l	mg/m ³	ppm	ug/l	mg/m ³	ppm	ug/l	mg/m ³	ppm	ug/l
1	29/12/2023	SRU-26	148.7	17.84	10.66	42.3	20.60	3.04	72.3	57.64	5.20	ND	ND	ND
2	26/12/2023	SRU-27	156.4	14.70	10.37	40.5	19.72	2.79	70.9	61.52	5.29	ND	ND	ND
Permissible limits (mg/m ³)			75			50			150			15		

AALENY-20231221003

****End of Report****

Review:

Test Method - Sulphur Dioxide (as SO₂) IS 11235(12)-1983, Oxide of Nitrogen (as NO_x) IS 11235(7)-2005, Carbon Monoxide (as CO) IS 12714-1997, Hydrogen Sulphide (as H₂S) IS 11235(4)-2005.


ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Issued To:	M/s Indian Oil Corporation Limited (Refineries Division) Paripat Naphtha Cracker, Paripat (Haryana)	Report No.:	AAL WQT-20230711038
Sample Description:	Effluent Water Sample	Date of Receiving:	15/07/2023
Work order Item:	Paripat Refinery (Table-A)	Date of Starting:	15/07/2023
Sample Collection Date:	10/07/2023	Date of Completion:	17/07/2023
Sample ID:	ETP)- Guard Pond	Date of Reporting:	17/07/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Paripat Oil Refinery)	Testing Method
1	pH Value	-	8.14	6.0 - 8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.3	5.0 Max.	IS 3025 (P-39)-2021
3	Biochemical Oxygen Demand (BOD ₅ - 1 day @ 20°C)	mg/l	13.4	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	87.6	125 Max.	IS 3025(P-58)-2006
5	Total Suspended Solids	mg/l	17.3	20 Max.	IS 3025 (P-17)-1994
6	Fluoride	mg/l	0.20	0.35 Max.	IS 3025(P-43)-1992
7	Sulphide (as S)	mg/l	0.15	0.3 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND _{as+as}	0.30 Max.	IS 3025(P-27)-1986
9	Ammonia (as N)	mg/l	5.6	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	9.2	40 Max.	IS 3025(P-36)-1988
11	P	mg/l	1.68	3.0 Max.	IS 3025(P-21)-1988
12	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND _{as+as}	0.1 Max.	IS 3025(P-52)-2003
13	Total Chromium (as Cr)	mg/l	ND _{as+as}	3.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND _{as+as}	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND _{as+as}	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.17	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND _{as+as}	1.0 Max.	IS 3025(P-54)-2001
18	Copper (as Cu)	mg/l	ND _{as+as}	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND _{as+as}	0.2 Max.	APHA (23 rd Edition), 2017, 3111D
20	Benzene (as C ₆ H ₆)	mg/l	ND _{as+as}	0.1 Max.	APHA (23 rd Edition), 2017, 62000
21	Benzo e-pyrene (BaP)	mg/l	ND _{as+as}	0.2 Max.	APHA (23 rd Edition), 2017, 6610B

23-1st Revised 23-06-2023 (as)

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Issued To:	M/s Jodha Oil Corporation Limited (Refineries Division) Paripat Nigūtha Cracker, Paripat (Haryana)	Report No.	AAL WQT-2023071039
Sample Description:	Effluent Water Sample	Date of Receiving:	11/07/2023
Work order Item:	Paripat Refinery (Table-A)	Date of Starting:	11/07/2023
Sample Collection Date:	10/07/2023	Date of Completion:	17/07/2023
Sample ID:	EEF2- Guard Pond	Date of Reporting:	17/07/2023
		Sample Quantity:	1 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Exception to Refinery)	Testing Method
1.	pH Value	-	8.19	6.0 - 8.5	IS 3025 (P-11)-1983
2.	Oil & Grease	mg/l	2.0	5.0 Max.	IS 3025 (P-39)-2021
3.	Biochemical Oxygen Demand (BOD- 5 days @ 17°C)	mg/l	14.5	15 Max.	IS 3025 (P-44)-1993
4.	Chemical Oxygen Demand (COD)	mg/l	90.0	125 Max.	IS 3025 (P-58)-2006
5.	Total Suspended Solids	mg/l	18.6	20 Max.	IS 3025 (P-17)-1984
6.	Fluoride	mg/l	0.23	0.35 Max.	IS 3025 (P-43)-1992
7.	Sulphide (as S)	mg/l	0.17	0.5 Max.	IS 3025 (P-29)-1986
8.	Cyanide (as CN)	mg/l	ND _{0.05}	0.20 Max.	IS 3025 (P-27)-1986
9.	Arsenic (as As)	mg/l	6.4	15 Max.	IS 3025 (P-34)-1988
10.	Total Kjeldahl Nitrogen (as N)	mg/l	10.7	40 Max.	IS 3025 (P-34)-1988
11.	P	mg/l	1.64	3.0 Max.	IS 3025 (P-37)-1988
12.	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{0.05}	0.1 Max.	IS 3025 (P-52)-2003
13.	Total Chromium (as Cr)	mg/l	ND _{0.05}	2.0 Max.	IS 3025 (P-52)-2003
14.	Lead (as Pb)	mg/l	ND _{0.05}	0.1 Max.	IS 3025 (P-47)-1994
15.	Mercury (as Hg)	mg/l	ND _{0.05}	0.01 Max.	IS 3025 (P-48)-1994
16.	Zinc (as Zn)	mg/l	0.22	5.0 Max.	IS 3025 (P-49)-1994
17.	Nickel (as Ni)	mg/l	ND _{0.05}	1.0 Max.	IS 3025 (P-54)-2003
18.	Copper (as Cu)	mg/l	ND _{0.05}	1.0 Max.	IS 3025 (P-42)-1992
19.	Vanadium (as V)	mg/l	ND _{0.05}	0.2 Max.	APHA (23 rd Edition), 2017, 3111D
20.	Boron (as B/L)	mg/l	ND _{0.05}	0.1 Max.	APHA (23 rd Edition), 2017, 6200B
21.	Barsite (as Ba/P)	mg/l	ND _{0.05}	0.2 Max.	APHA (23 rd Edition), 2017, 6200B

APHA (23rd Edition), 2017, 6200B

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Deputy Technical Manager
Authorised Signatory

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Sample Description:	Effluent Water Sample	Date of Receipt:	11/07/2023
Work order Item:	PK-PTA (Table-I)	Date of Starting:	11/07/2023
Sample Collection Date:	10/07/2023	Date of Completion:	17/07/2023
Sample ID:	PTA-ETP-3- Guard Pond	Date of Reporting:	17/07/2023
		Sample Quantity:	2 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits	Testing Method
1	pH Value	-	7.96	6.5 - 8.5	IS 3025(P-11)-1983
2	Biochemical Oxygen Demand (BOD - 5 days at 20°C)	mg/l	13.7	10 Max.	IS 3025(P-44)-1993
3	Phenol	mg/l	0.14	1 Max.	IS 3025(P-43)-1992
4	Sulphide (as S ₂)	mg/l	0.12	2 Max.	IS 3025(P-20)-1986
5	Chemical Oxygen Demand (COD)	mg/l	73.0	250 Max.	IS 3025(P-18)-2006
6	Cyanide (as CN)	mg/l	ND _{0.05mg/l}	0.20 Max.	IS 3025(P-27)-1986
7	Fluoride (as F)	mg/l	1.12	5 Max.	APHA 2nd Ed. 4500 F
8	Total Suspended Solids	mg/l	14.0	100 Max.	IS 3025 (P-17)-1984
9	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{0.05mg/l}	0.1 Max.	IS 3025(P-52)-2003
10	Total Chromium (as Cr)	mg/l	ND _{0.05mg/l}	2.0 Max.	IS 3025(P-52)-2003

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Sample Description:	Effluent Water Sample	Date of Receiving:	23/08/2023
Work order Item:	Panipat Refinery (Table-A)	Date of Starting:	23/08/2023
Sample Collection Date:	23/08/2023	Date of Completion:	28/08/2023
Sample ID:	ETP- Guard Pond	Date of Reporting:	28/08/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Industrial Effluents)	Testing Method
1	pH Value	-	7.95	6.0 - 8.5	IS 3025 (P-11)-1983
2	Oil & Grease	mg/l	2.6	5.0 Max.	IS 3025 (P-39)-2021
3	Biochemical Oxygen Demand (BOD - 5 days at 20°C)	mg/l	12.0	15 Max.	IS 3025 (P-44)-1992
4	Chemical Oxygen Demand (COD)	mg/l	78.0	125 Max.	IS 3025 (P-58)-2006
5	Total Suspended Solids	mg/l	15.0	50 Max.	IS 3025 (P-17)-1994
6	Phenols	mg/l	0.14	0.25 Max.	IS 3025 (P-43)-1992
7	Sulphide (as S)	mg/l	0.10	0.5 Max.	IS 3025 (P-29)-1986
8	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025 (P-27)-1986
9	Ammonia (as N)	mg/l	3.6	15 Max.	IS 3025 (P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	7.0	40 Max.	IS 3025 (P-33)-1988
11	P	mg/l	1.27	3.0 Max.	IS 3025 (P-31)-1988
12	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as per}	0.1 Max.	IS 3025 (P-52)-2002
13	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025 (P-52)-2002
14	Lead (as Pb)	mg/l	ND _{as per}	0.1 Max.	IS 3025 (P-47)-1994
15	Mercury (as Hg)	mg/l	ND _{as per}	0.01 Max.	IS 3025 (P-48)-1994
16	Zinc (as Zn)	mg/l	0.14	5.0 Max.	IS 3025 (P-49)-1994
17	Nickel (as Ni)	mg/l	ND _{as per}	1.0 Max.	IS 3025 (P-34)-2002
18	Copper (as Cu)	mg/l	ND _{as per}	1.0 Max.	IS 3025 (P-42)-1992
19	Vanadium (as V)	mg/l	ND _{as per}	0.2 Max.	APHA (23 rd Edition), 2017, 31117
20	Banoxate (as C ₆ H ₆)	mg/l	ND _{as per}	0.1 Max.	APHA (23 rd Edition), 2017, 62088
21	Benzo-a-pyrene (BaP)	mg/l	ND _{as per}	0.2 Max.	APHA (23 rd Edition), 2017, 62088

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Sample Description:	Effluent Water Sample	Date of Receiving:	23/08/2023
Work order Item:	Panipat Refinery (Table-A)	Date of Starting:	23/08/2023
Sample Collection Date:	23/08/2023	Date of Completion:	28/08/2023
Sample ID:	ETP2- Guard Pond	Date of Reporting:	28/08/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Unless Otherwise Specified)	Testing Method
1	pH Value	-	8.02	6.0-8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.3	5.0 Max.	IS 3025 (P-39)-2011
3	Biochemical Oxygen Demand (BOD-3 days at 20°C)	mg/l	13.4	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	83.0	125 Max.	IS 3025(P-58)-2006
5	Total Suspended Solids	mg/l	17.0	20 Max.	IS 3025 (P-17)-1984
6	Fluoride	mg/l	0.18	0.35 Max.	IS 3025(P-43)-1992
7	Sulphide (as S)	mg/l	0.13	0.5 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025(P-27)-1986
9	Ammonia (as N)	mg/l	5.0	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	9.4	40 Max.	IS 3025(P-34)-1988
11	P	mg/l	1.29	3.0 Max.	IS 3025(P-11)-1988
12	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-52)-2003
13	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND _{as per}	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.18	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND _{as per}	1.0 Max.	IS 3025(P-54)-2003
18	Copper (as Cu)	mg/l	ND _{as per}	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND _{as per}	0.2 Max.	APHA (22 nd Edition), 2017, 1111D
20	Benzene (as C ₆ H ₆)	mg/l	ND _{as per}	0.1 Max.	APHA (22 nd Edition), 2017, 6200B
21	Benzopyrene (BaP)	mg/l	ND _{as per}	0.2 Max.	APHA (23 rd Edition), 2017, 8000

Lab No: AAL/2023/021012/01

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Sample Description:	Effluent Water Sample	Date of Receiving:	23/08/2023
Work order Item:	PX-PTA (Table-1)	Date of Starting:	23/08/2023
Sample Collection Date:	23/08/2023	Date of Completion:	28/08/2023
Sample ID:	PTA-EIP-3- Guard Pond	Date of Reporting:	28/08/2023
		Sample Quantity:	2 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits	Testing Method
1	pH Value	-	7.91	6.5 – 8.5	IS 3025(P-11)-1983
2	Biochemical Oxygen Demand (BOD - 5 days at 20°C)	mg/l	12.6	30 Max.	IS 3025(P-44)-1993
3	Iron	mg/l	0.17	1 Max.	IS 3025(P-43)-1992
4	Sulphide (as S)	mg/l	0.10	2 Max.	IS 3025(P-29)-1986
5	Chemical Oxygen Demand (COD)	mg/l	85.0	250 Max.	IS 3025(P-58)-2006
6	Cyanide (as CN)	mg/l	ND _{as.40}	0.20 Max.	IS 3025(P-27)-1986
7	Fluoride (as F)	mg/l	1.20	5 Max.	APHA 23rd Ed. 4500FD
8	Total Suspended Solids	mg/l	17.0	100 Max.	IS 3025 (P-17)-1984
9	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as.40}	0.1 Max.	IS 3025(P-52)-2003
10	Total Chromium (as Cr)	mg/l	ND _{as.40}	2.0 Max.	IS 3025(P-52)-2003

08/28/2023 10:48:00 AM

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Issued To:	Mix India Co Corporate Limited (Refinery Division) Parpat Naphtha Cracker, Parpat (Haryana)	Report No.:	AAL-WQT-20230910017
Sample Description:	Effluent Water Sample	Date of Receipt:	18/09/2023
Work order Item:	Parpat Refinery (Units-A)	Date of Sampling:	18/09/2023
Sample Collection Date:	16/09/2023	Date of Completion:	21/09/2023
Sample ID:	EFP - Guard Pond	Date of Reporting:	23/09/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Flask Can
		Sample Collected By:	AAL

TEST RESULT

S.No.	Test parameters	Unit	Result	Permissible Limits as per CPCB Guidelines (Maximum Allowable)	Testing Method
1	pH Value		7.82	6.5 - 8.5	IS 3025P-115-1983
2	Oil & Grease	mg/l	24	5.0 Max.	IS 3025 (P-55)-2021
3	Biochemical Oxygen Demand (BOD) @ 20°C (5 days)	mg/l	11.6	15 Max.	IS 3025P-44-1993
4	Chemical Oxygen Demand (COD)	mg/l	87.0	125 Max.	IS 3025(P-58)-2005
5	Total Suspended Solids	mg/l	17.5	20 Max.	IS 3025 (P-17)-1984
6	Fluoride	mg/l	0.17	0.35 Max.	IS 3025(P-43)-1982
7	Nitrate (as N)	mg/l	0.10	0.5 Max.	IS 3025(P-20)-1984
8	Cyanide (as CN)	mg/l	ND/trace	0.25 Max.	IS 3025(P-27)-1984
9	Ammonia (as N)	mg/l	4.3	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	9.5	40 Max.	IS 3025(P-34)-1988
11	P	mg/l	1.31	2.0 Max.	IS 3025(P-33)-1988
12	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND/trace	0.1 Max.	IS 1025(P-52)-2005
13	Total Chromium (as Cr)	mg/l	ND/trace	2.0 Max.	IS 1025(P-52)-2005
14	Lead (as Pb)	mg/l	ND/trace	0.1 Max.	IS 1025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND/trace	0.01 Max.	IS 1025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.29	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND/trace	1.0 Max.	IS 3025(P-34)-2005
18	Copper (as Cu)	mg/l	ND/trace	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND/trace	0.2 Max.	APHA (27 th Edition, 2012, 2111D)
20	Barium (as Ba)	mg/l	ND/trace	0.1 Max.	APHA (27 th Edition, 2012, 2111D)
21	Boron (as B)	mg/l	ND/trace	0.2 Max.	APHA (27 th Edition, 2012, 2111D)

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 Deputy Technical Manager
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Issued To:	M/s Indian Oil Corporation Limited (Refinery Division) Panjval Naphtha Cluster, Panjval (Haryana)	Report No.:	AAI.WQI-20230918018
Sample Description:	Effluent Water Sample	Date of Receipt:	18/09/2023
Work order Item:	Periodic Refinery (Table-A)	Date of Starting:	18/09/2023
Sample Collection Date:	16/09/2023	Date of Completion:	21/09/2023
Sample ID:	ETP1- Guard Pond	Date of Reporting:	23/09/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAI

TEST RESULT

S. No.	Test parameter	Unit	Result	Permissible Limit as per CPCB Guideline (Reference of Rule)	Testing Method
1	pH Value	-	7.35	6.0 - 8.5	IS 3025(P-11)-1993
2	Oil & Grease	mg/l	2.8	5.0 Max.	IS 3025 (P-39)-2001
3	Biochemical Oxygen Demand (BOD) - 5 days (20°C)	mg/l	14.2	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	95.0	125 Max.	IS 3025(P-59)-2006
5	Total Suspended Solids	mg/l	18.5	22.5Max.	IS 3025 (P-17)-1984
6	Fluoride	mg/l	0.22	0.55 Max.	IS 3025(P-43)-1992
7	Nitrite (as N)	mg/l	0.17	0.5 Max.	IS 3025(P-26)-1985
8	Nitrate (as N)	mg/l	ND(Limit)	0.20 Max.	IS 3025(P-27)-1985
9	Ammonia (as N)	mg/l	6.0	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	11.0	40 Max.	IS 3025(P-54)-1988
11	P	mg/l	0.64	3.0 Max.	IS 3025(P-31)-1988
12	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND(Limit)	0.1 Max.	IS 3025(P-32)-2003
13	Total Chlorine (as Cl)	mg/l	ND(Limit)	2.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND(Limit)	0.1 Max.	IS 3025(P-47)-1984
15	Mercury (as Hg)	mg/l	ND(Limit)	0.01 Max.	IS 3025(P-48)-1984
16	Zinc (as Zn)	mg/l	0.23	5.0 Max.	IS 3025(P-49)-1984
17	Nickel (as Ni)	mg/l	ND(Limit)	1.0 Max.	IS 3025(P-54)-2003
18	Copper (as Cu)	mg/l	ND(Limit)	1.0 Max.	IS 3025(P-42)-1982
19	Vanadium (as V)	mg/l	ND(Limit)	0.2 Max.	APHA (23 rd Edition, 2017), 21110
20	Selenium (as Se)	mg/l	ND(Limit)	0.1 Max.	APHA (23 rd Edition, 2017), 67380
21	Borate (as B)	mg/l	ND(Limit)	0.2 Max.	APHA (23 rd Edition, 2017), 64100

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Issued To:	Ma Indian Oil Corporation Limited (Refineries Division) Paripat Naphta Cracker, Paripat (Haryana)	Report No.	AAI WQT-20230918008
Sample Description:	Effluent Water Sample	Date of Receiving:	18/09/2023
Work order Item:	PK-PTA (Table-I)	Date of Starting:	18/09/2023
Sample Collection Date:	16/09/2023	Date of Completion:	21/09/2023
Sample ID:	FTA-ETP-3- Guard Pond	Date of Reporting:	23/09/2023
		Sample Quantity:	2 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAI

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits	Testing Method
1	pH Value	-	7.76	6.5 - 8.5	IS 3025(P-11)-1983
2	Biochemical Oxygen Demand (BOD-5 at 20°C)	mg/l	15.5	10 Max.	IS 3025(P-44)-1993
3	Phenol	mg/l	0.21	1 Max.	IS 3025(P-43)-1992
4	Sulphide (as S)	mg/l	0.17	2 Max.	IS 3025(P-29)-1986
5	Chemical Oxygen Demand (COD)	mg/l	93.0	250 Max.	IS 3025(P-58)-2006
6	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025(P-27)-1980
7	Fluoride (as F)	mg/l	1.38	5 Max.	APHA 23rd Ed. 8150007
8	Total Suspended Solids	mg/l	20.6	100 Max.	IS 3025 (P-17)-1984
9	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-52)-2003
10	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025(P-52)-2003

APHA 23rd Ed. 8150007

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Issued To:	M/s Indian Oil Corporation Limited (Refinery Division) Punjab Naphtha Cracker Farooz (Haryana)	Report No.	AAI_WQT-20231017034
Sample Description:	Effluent Water Sample	Date of Receiving:	17/10/2023
Work order Item:	Punjab Refinery (Table-A)	Date of Starting:	17/10/2023
Sample Collection Date:	16/10/2023	Date of Completion:	23/10/2023
Sample ID:	ETPI- Guard Pond	Date of Reporting:	23/10/2023
		Sample Quantity:	2 Ltr
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAI

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Maximum Allowable Concentration)	Testing Method
1	pH Value	-	7.76	6.0-8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.2	5.0 Max.	IS 3025 (P-39)-2021
3	Biochemical Oxygen Demand (BOD - 5 days at 20°C)	mg/l	12.0	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	78.0	125 Max.	IS 3025(P-58)-2006
5	Total Suspended Solids	mg/l	16.0	20 Max.	IS 3025 (P-17)-1984
6	Phenols	mg/l	0.15	0.25 Max.	IS 3025(P-43)-1992
7	Sulphide (as S)	mg/l	0.14	0.5 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND _{0.05}	0.20 Max.	IS 3025(P-27)-1986
9	Ammonia (as N)	mg/l	3.0	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	8.0	40 Max.	IS 3025(P-34)-1988
11	P	mg/l	1.40	3.0 Max.	IS 3025(P-31)-1988
12	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{0.05}	0.1 Max.	IS 3025(P-52)-2003
13	Total Chromium (as Cr)	mg/l	ND _{0.05}	2.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND _{0.05}	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND _{0.001}	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.16	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND _{0.05}	1.0 Max.	IS 3025(P-54)-2003
18	Copper (as Cu)	mg/l	ND _{0.05}	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND _{0.05}	0.2 Max.	APHA (21 st Edition), 2017, 3110
20	Benzene (as C ₆ H ₆)	mg/l	ND _{0.05}	0.1 Max.	APHA (21 st Edition), 2017, 8200
21	Benz(a)pyrene (BaP)	mg/l	ND _{0.05}	0.2 Max.	APHA (21 st Edition), 2017, 8410B

APHA (21st Edition), 2017, 8410B

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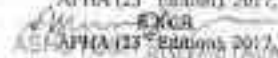
Issued To:	M/s Indian Oil Corporation Limited (Refineries Division) Punjab Refineries Cracker, Punjab (Haryana)	Report No.	AAL WQT-20231017035
Sample Description:	Effluent Water Sample	Date of Receiving:	17/10/2023
Work order Item:	Punjab Refinery (Table-A)	Date of Starting:	17/10/2023
Sample Collection Date:	16/10/2023	Date of Completion:	23/10/2023
Sample ID:	ETP2- Guard Pond	Date of Reporting:	23/10/2023
		Sample Quantity:	2 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Punjab Refinery)	Testing Method
1	pH Value	-	7.82	6.0 - 8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.5	5.0 Max.	IS 3025 (P-10)-2001
3	Biochemical Oxygen Demand (BOD) - 5 days at 20°C	mg/l	13.7	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	88.9	125 Max.	IS 3025(P-36)-2006
5	Total Suspended Solids	mg/l	17.6	20 Max.	IS 3025 (P-17)-1984
6	Phenols	mg/l	0.19	0.15 Max.	IS 3025(P-43)-1982
7	Sulphide (as S)	mg/l	0.12	0.1 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND _(as=0.01)	0.20 Max.	IS 3025(P-27)-1986
9	Ammonia (as N)	mg/l	5.4	15 Max.	IS 3025(P-34)-1984
10	Total Kjeldahl Nitrogen (as N)	mg/l	9.6	40 Max.	IS 3025(P-34)-1984
11	F	mg/l	1.52	3.0 Max.	IS 3025(P-11)-1988
12	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND _(as=0.01)	0.1 Max.	IS 3025(P-52)-2003
13	Total Chromium (as Cr)	mg/l	ND _(as=0.01)	2.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND _(as=0.01)	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND _(as=0.001)	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.28	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND _(as=0.01)	1.0 Max.	IS 3025(P-54)-2003
18	Copper (as Cu)	mg/l	ND _(as=0.01)	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND _(as=0.01)	0.2 Max.	APHA (23 rd Edition), 2017, 3111D
20	Benzene (as C ₆ H ₆)	mg/l	ND _(as=0.01)	0.1 Max.	APHA (23 rd Edition), 2017, 8103B
21	Benzopyrene (BaP)	mg/l	ND _(as=0.01)	0.2 Max.	APHA (23 rd Edition), 2017, 8103B

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Sample Description:	Effluent Water Sample	Date of Receipt:	17/10/2023
Work order Item:	PA-PTA (Table-I)	Date of Starting:	17/10/2023
Sample Collection Date:	16/10/2023	Date of Completion:	23/10/2023
Sample ID:	PTA-RTP-3- Guard Feed	Date of Reporting:	23/10/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAI

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits	Testing Method
1.	pH Value	-	7.82	6.5 - 8.5	IS 3025(P-11)-1983
2.	Biochemical Oxygen Demand (BOD - 3 days at 20°C)	mg/l	17.3	30 Max.	IS 3025(P-14)-1993
3.	Phenol	mg/l	0.18	1 Max.	IS 3025(P-43)-1992
4.	Sulphide (as S)	mg/l	0.19	2 Max.	IS 3025(P-29)-1986
5.	Chemical Oxygen Demand (COD)	mg/l	66.0	250 Max.	IS 3025(P-58)-2006
6.	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025(P-27)-1986
7.	Fluoride (as F)	mg/l	1.28	5 Max.	APHA 23rd Ed. 4500F
8.	Total Suspended Solids	mg/l	24.0	100 Max.	IS 3025 (P-17)-1984
9.	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-52)-2003
10.	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025(P-52)-2003

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Sample Description:	Effluent Water Sample	Date of Receiving:	11/11/2023
Work order Item:	Panipat Refinery (Table-A)	Date of Starting:	11/11/2023
Sample Collection Date:	10/11/2023	Date of Completion:	18/11/2023
Sample ID:	EETP- Guard Pond	Date of Reporting:	18/11/2023
		Sample Quantity:	2 Ltrs
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S.No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Effluent of Refinery)	Testing Method
1	pH Value	-	7.90	6.0 - 8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.4	5.0 Max.	IS 3025 (P-39)-2013
3	Biochemical Oxygen Demand (BOD-5 at 20°C)	mg/l	14.2	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	108.0	125 Max.	IS 3025(P-58)-2006
5	Total Suspended Solids	mg/l	18.6	20 Max.	IS 3025 (P-17)-1984
6	Phenols	mg/l	0.20	0.35 Max.	IS 3025(P-43)-1993
7	Sulphide (as S)	mg/l	0.17	0.5 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025(P-27)-1986
9	Ammonia (as N)	mg/l	5.3	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	11.5	40 Max.	IS 3025(P-34)-1988
11	P	mg/l	1.50	3.0 Max.	IS 3025(P-31)-1988
12	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-52)-2002
13	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025(P-53)-2003
14	Lead (as Pb)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND _{as per}	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.35	5.0 Max.	IS 3025(P-49)-1994
17	Nickel (as Ni)	mg/l	ND _{as per}	1.0 Max.	IS 3025(P-54)-2005
18	Copper (as Cu)	mg/l	ND _{as per}	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND _{as per}	0.2 Max.	APHA (23 rd Edition), 2017, 3111D
20	Benzene (as C ₆ H ₆)	mg/l	ND _{as per}	0.1 Max.	APHA (23 rd Edition), 2017, 6200B
21	Benzene-pyrene (BaP)	mg/l	ND _{as per}	0.2 Max.	APHA (23 rd Edition), 2017, 6200B

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Authorised Signatory

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Sample Description:	Effluent Water Sample	Date of Receiving:	11/11/2023
Work order Item:	Paripat Refinery (Table-A)	Date of Starting:	11/11/2023
Sample Collection Date:	10/11/2023	Date of Completion:	18/11/2023
Sample ID:	ETP2- Guard Pond	Date of Reporting:	18/11/2023
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Maximum Allowable Concentration)	Testing Method
1	pH Value	-	7.73	6.0 - 8.5	IS 3025(P-11)-1983
2	Oil & Grease	mg/l	2.2	5.0 Max.	IS 3025 (P-39)-2003
3	Biochemical Oxygen Demand (BOD - 5 days at 20°C)	mg/l	12.0	15 Max.	IS 3025(P-44)-1993
4	Chemical Oxygen Demand (COD)	mg/l	95.0	125 Max.	IS 3025(P-58)-2006
5	Total Suspended Solids	mg/l	16.4	20 Max.	IS 3025 (P-17)-1984
6	Phenols	mg/l	0.17	0.35 Max.	IS 3025(P-43)-1992
7	Sulphide (as S)	mg/l	0.16	0.5 Max.	IS 3025(P-29)-1986
8	Cyanide (as CN)	mg/l	ND(=0.001)	0.20 Max.	IS 3025(P-27)-1986
9	Arsenic (as As)	mg/l	6.3	15 Max.	IS 3025(P-34)-1988
10	Total Kjeldahl Nitrogen (as N)	mg/l	12.5	40 Max.	IS 3025(P-34)-1988
11	P	mg/l	1.36	3.0 Max.	IS 3025(P-31)-1988
12	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND(=0.001)	0.1 Max.	IS 3025(P-52)-2003
13	Total Chromium (as Cr)	mg/l	ND(=0.001)	2.0 Max.	IS 3025(P-52)-2003
14	Lead (as Pb)	mg/l	ND(=0.001)	0.1 Max.	IS 3025(P-47)-1994
15	Mercury (as Hg)	mg/l	ND(=0.001)	0.01 Max.	IS 3025(P-48)-1994
16	Zinc (as Zn)	mg/l	0.19	5.0 Max.	IS 3025(P-48)-1994
17	Nickel (as Ni)	mg/l	ND(=0.001)	1.0 Max.	IS 3025(P-54)-2003
18	Copper (as Cu)	mg/l	ND(=0.001)	1.0 Max.	IS 3025(P-42)-1992
19	Vanadium (as V)	mg/l	ND(=0.001)	0.2 Max.	APHA (23 rd Edition), 2017, 3111D
20	Boron (as B ₂ O ₃)	mg/l	ND(=0.001)	0.1 Max.	APHA (23 rd Edition), 2017, 6220B
21	Boron oxygens (B ₂ O ₃)	mg/l	ND(=0.001)	0.2 Max.	APHA (23 rd Edition), 2017, 6220B

www.aalindia.com

****End of Report****

ASHUTOSH SHARMA
Deputy Technical Manager
Authorised Signatory

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AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED LABORATORY

272, Phase-IV, Sec-57, HSIIDC, Kundli, Sonapat-131028 (Haryana)

Ph. : 7082301442, 9250014551 Email : askkundli@gmail.com

Website : www.askkundli.com

TEST CERTIFICATE

Page 1 of 1

Issued To:	M/s Indira Oil Corporation Limited (Refineries Division) Paripat Naphtha Cracker, Paripat (Haryana)	Report No.:	AAI.WQT-2023111046
Sample Description:	Effluent Water Sample	Date of Receipt:	11/11/2023
Work order Item:	PX-PTA (Table-I)	Date of Start:	11/11/2023
Sample Collection Date:	10/11/2023	Date of Completion:	18/11/2023
Sample ID:	PTA-ETP-J- Guard Pond	Date of Reporting:	18/11/2023
		Sample Quantity:	1 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAI

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limit	Testing Method
1	pH Value	-	7.62	6.5 - 8.5	IS 3025(P-11)-1983
2	Biochemical Oxygen Demand (BOD) - 5 days at 20°C	mg/l	19.0	30 Max.	IS 3025(P-44)-1993
3	Phenol	mg/l	0.23	1 Max.	IS 3025(P-47)-1993
4	Sulphide (as S)	mg/l	0.21	2 Max.	IS 3025(P-29)-1986
5	Chemical Oxygen Demand (COD)	mg/l	104.9	250 Max.	IS 3025(P-58)-2006
6	Cyanide (as CN)	mg/l	ND _{as per}	0.20 Max.	IS 3025(P-27)-1986
7	Fluoride (as F)	mg/l	1.43	5 Max.	APHA 23rd Ed. 4500FD
8	Total Suspended Solids	mg/l	28.0	100 Max.	IS 3025 (P-17)-1984
9	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{as per}	0.1 Max.	IS 3025(P-52)-2003
10	Total Chromium (as Cr)	mg/l	ND _{as per}	2.0 Max.	IS 3025(P-52)-2003

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End of Report


ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorized Signatory

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Website : www.aalkundli.com

TEST CERTIFICATE

Page 1 of 1

Issued To:	My Indian Oil Corporation Limited (Refineries Division) Panipat Naphtha Cracker, Panipat (Haryana)	Report No.:	AAL WQT-20211221005
Sample Description:	Effluent Water Sample	Date of Receiving:	21/12/2021
Work order Item:	Panipat Refinery (Table-A)	Date of Startng:	21/12/2021
Sample Collection Date:	20/12/2021	Date of Completion:	26/12/2021
Sample ID:	ETPI- Guard Feed	Date of Reporting:	26/12/2021
		Sample Quantity:	2 Ltr
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Maximum Allowable)	Testing Method
1.	pH Value	-	7.82	6.0 - 9.5	IS 3025(P-11)-2002
2.	Oil & Grease	mg/l	2.6	3.0 Max.	IS 3025(P-39)-2021
3.	Biochemical Oxygen Demand (BOD ₅) @ 20°C	mg/l	14.0	15 Max.	IS 3025(P-44)-2003
4.	Chemical Oxygen Demand (COD)	mg/l	93.0	125 Max.	IS 3025(P-58)-2003
5.	Total Suspended Solids	mg/l	17.4	20 Max.	IS 3025(P-17)-2002
6.	Phenols	mg/l	0.18	0.35 Max.	IS 3025(P-43/S-1)-2002
7.	Sulphide (as S)	mg/l	6.15	0.5 Max.	IS 3025(P-29)-2002
8.	Cyanide (as CN)	mg/l	ND _{0.05}	0.20 Max.	APHA 4500 CN-D
9.	Ammonia (as N)	mg/l	4.7	15 Max.	IS 3025(P-34)-1988
10.	Total Kjeldahl Nitrogen (as N)	mg/l	9.8	40 Max.	IS 3025(P-34)-1988
11.	P	mg/l	1.60	3.0 Max.	IS 3025(P-31)-1988
12.	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{0.05}	0.1 Max.	IS 3025(P-52)-2003
13.	Total Chromium (as Cr)	mg/l	ND _{0.05}	2.0 Max.	IS 3025(P-52)-2003
14.	Lead (as Pb)	mg/l	ND _{0.05}	0.1 Max.	IS 3025(P-47)-1994
15.	Mercury (as Hg)	mg/l	ND _{0.05}	0.01 Max.	IS 3025(P-48)-1994
16.	Zinc (as Zn)	mg/l	0.22	5.0 Max.	IS 3025(P-49)-1994
17.	Nickel (as Ni)	mg/l	ND _{0.05}	1.0 Max.	IS 3025(P-54)-2003
18.	Copper (as Cu)	mg/l	ND _{0.05}	1.0 Max.	IS 3025(P-42)-1992
19.	Vanadium (as V)	mg/l	ND _{0.05}	0.2 Max.	APHA (21 st Edition), 2017, 31110
20.	Benzene (as C ₆ H ₆)	mg/l	ND _{0.05}	0.1 Max.	APHA (21 st Edition), 2017, 62001
21.	Benzopyrene (BaP)	mg/l	ND _{0.05}	0.2 Max.	APHA (21 st Edition), 2017, 62001

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****End of Report****

ASHTOSH KUMAR VASTAWA
Deputy Technical Manager
Authorised Signatory

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Website : www.aalkundli.com

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Page 1 of 1

Issued To:	M/s Indian Oil Corporation Limited (Refineries Division) Panipat Refinery Cracker, Panipat (Haryana)	Report No.	AAL WQT-20211221006
Sample Description:	Effluent Water Sample	Date of Receiving:	21/12/2021
Work order item:	Panipat Refinery (Table-A)	Date of Sampling:	21/12/2021
Sample Collection Date:	20/12/2021	Date of Completion:	26/12/2021
Sample ID:	ETP2- Guard Pond	Date of Reporting:	26/12/2021
		Sample Quantity:	2 Litre
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits as per CPCB Guideline (Maximum Allowable)	Testing Method
1.	pH Value	-	7.79	6.0 - 8.5	IS 3025(P-11)-2002
2.	Oil & Grease	mg/l	2.3	5.0 Max.	IS 3025 (P-39)-2021
3.	Biochemical Oxygen Demand (BOD-5 @ 20°C)	mg/l	13.2	15 Max.	IS 3025(P-44)-2002
4.	Chemical Oxygen Demand (COD)	mg/l	55.0	125 Max.	IS 3025(P-58)-2002
5.	Total Suspended Solids	mg/l	15.3	20 Max.	IS 3025 (P-17)-2002
6.	Fluoride	mg/l	0.14	0.35 Max.	IS 3025(P-43/S-1)-2002
7.	Sulphide (as S)	mg/l	0.13	0.5 Max.	IS 3025(P-29)-2002
8.	Cyanide (as CN)	mg/l	ND _{detect}	0.20 Max.	APIIA 4300 CN-D
9.	Ammonia (as N)	mg/l	3.6	15 Max.	IS 3025(P-34)-1988
10.	Total Kjeldahl Nitrogen (as N)	mg/l	8.0	40 Max.	IS 3025(P-34)-1988
11.	P	mg/l	1.28	3.0 Max.	IS 3025(P-31)-1988
12.	Hexavalent Chromium (as Cr ⁶⁺)	mg/l	ND _{detect}	0.1 Max.	IS 3025(P-52)-2002
13.	Total Chromium (as Cr)	mg/l	ND _{detect}	2.0 Max.	IS 3025(P-52)-2002
14.	Lead (as Pb)	mg/l	ND _{detect}	0.1 Max.	IS 3025(P-47)-1994
15.	Manganese (as Mn)	mg/l	ND _{detect}	0.01 Max.	IS 3025(P-48)-1994
16.	Zinc (as Zn)	mg/l	0.17	5.0 Max.	IS 3025(P-49)-1994
17.	Nickel (as Ni)	mg/l	ND _{detect}	1.0 Max.	IS 3025(P-54)-2002
18.	Copper (as Cu)	mg/l	ND _{detect}	1.0 Max.	IS 3025(P-40)-1992
19.	Vanadium (as V)	mg/l	ND _{detect}	0.2 Max.	APIIA (23 rd Edition), 2017, 31110
20.	Hexane (as C ₆ H ₁₄)	mg/l	ND _{detect}	0.1 Max.	APIIA (23 rd Edition), 2017, 62008
21.	Benzopyrene (BaP)	mg/l	ND _{detect}	0.2 Max.	APIIA (23 rd Edition), 2017, 64198

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****End of Report****

ANIL KUMAR VASTAVA
Divisional Technical Manager
Authorized Signatory

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Page 1 of 1


Issued To:	M/s Indian Oil Corporation Limited (Refineries Division) Panipat Naphta Cracker, Panipat (Haryana)	Report No.	AAL WQT-20231221008
Sample Description:	Effluent Water Sample	Date of Receiving:	21/12/2023
Work order Item:	FX-PTA (Tails-I)	Date of Starting:	21/12/2023
Sample Collection Date:	20/12/2023	Date of Completion:	26/12/2023
Sample ID:	PTA-ETP-3- Guard Feed	Date of Reporting:	26/12/2023
		Sample Quantity:	2 Liter
		Sample Packing Condition:	Plastic Can
		Sample Collected By:	AAL

TEST RESULT

S. No.	Test parameters	Unit	Results	Permissible Limits	Testing Method
1.	pH Value	-	7.53	6.5 - 8.5	IS 3025(P-11)-2022
2.	Biochemical Oxygen Demand (BOD - 5 days @ 20°C)	mg/l	21.0	30 Max.	IS 3025(P-44)-2022
3.	Total	mg/l	0.25	1 Max.	IS 3025(P-43/S-1)-2022
4.	Sulphide (as S)	mg/l	0.24	2 Max.	IS 3025(P-29)-2022
5.	Chemical Oxygen Demand (COD)	mg/l	117.9	250 Max.	IS 3025(P-51)-2022
6.	Chloride (as Cl ⁻)	mg/l	ND_{detectable}	0.20 Max.	APHA 4500-Cl-N
7.	Fluoride (as F ⁻)	mg/l	1.54	5 Max.	APHA 4500-FD
8.	Total Suspended Solids	mg/l	30.5	100 Max.	IS 3025 (P-17)-2022
9.	Hexavalent Chromium (as Cr ^{VI})	mg/l	ND_{detectable}	0.1 Max.	IS 3025(P-52)-2003
10.	Total Chromium (as Cr)	mg/l	ND_{detectable}	2.0 Max.	IS 3025(P-52)-2003

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

****End of Report****


ASHUTOSH SRIVASTAVA
Deputy Technical Manager
Authorised Signatory

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Panipat Refinery and Petrochemical complex

Noise monitoring results

Date/Period: -28 December 2023 (Q-3-2023-2024)

S. No.	Location name	Noise results	
		Day time (6.00 a.m. to 10.00 p.m) (Limit 75 dBA)*	Night time (10.00 p.m. to 6.00 a.m) (Limit 70 dBA)*
1	Gate no. 1	58.6	56.4
2	PIA Gate.	56.4	54.8
3	At entry of PNC flyover.	60.2	59.1
4	Near Raw water pond (north west corner).	63.7	54.2
5	Boundary wall (near operator cabin 4 of offsites.)	58.8	53.2
6	Near MCR.	61.1	60.1
7	Near boundary wall at backside of ETP-2.	57.5	54.2
8	Near CR-11	64.6	43.2
9	Gate No. 2 (Time office)	60.2	58.2
10	Store	58.9	50.1
11	PIA control room	56.8	54.4
12	Admin building.	52.4	48.6
13	Project building	56.2	50.4
14	IX control room	59.6	56.2
15	3 G Ethanol	65.9	52.7
16	Main Gate(2G Ethanol Plant)	72.6	70.1
17	Control Room (2G Ethanol Plant)	61.1	60.1

*Note: as per Noise pollution (regulation and control) rules 2000


Ind. Hygienist


Occupational Health Centre

Dr. Sandeep Kumar
Senior Officer (Hygiene)
Panipat Refinery (O.C.E.)-132145

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

3312

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	POLC, Panipat Refinery & Petrochemical complex, Panipat - 132140			
2	Sender's authorisation No.	HWM/PIT/2023/773 S/O			
3	Manifest Document No.	3312			
4	Transporter's name and address: (Including Phone No. and e-mail)	Kindrup by Mrs. Nilay Narayan Polychem LLP			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR4SC5805			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	Mrs. Nilay Narayan Polychem LLP D-163, KANDRA, Dhanbad.			
9	Receiver's authorisation No.	JSPCB/HO/RMC/HWM/10052121/2021/23			
10	Waste description	Spent clay (mud)			
11	Total quantity No. of Containers	25.17 m ³ or MT ✓ Nos:			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	<p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp:	Signature	Month	Day	Year
			07	05	2023
15	Transporter acknowledgment of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			07	05	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			07	05	2023

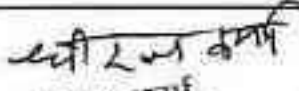
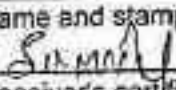
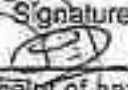


Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3313**

FORM 10
 {See rule 19 (1)}

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	Do. of Panipat Refinery & Petrochemical Complex, Bahadur Panipat - 132140			
2	Sender's authorisation No.	HUM/PIIT/2023/7739/01			
3	Manifest Document No.	3313			
4	Transporter's name and address: (Including Phone No. and e-mail)	Linked up by M/s. Nilay narayan Polymers LLP.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR4SC5805			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Nilay narayan Polymers LLP, D-103, KANDRA, Dhombad.			
9	Receiver's authorisation No.	JSPCB/HO/RMC/HUM/100S2121/2021/23			
10	Waste description	Oily sludge (U.R.)			
11	Total quantity No. of Containers	12.76 m ³ or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	<p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp:	Signature	Month	Day	Year
			07	19	2023
15	Transporter acknowledgment of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			07	19	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			07	19	2023

Sender copy to be sent to SPCB

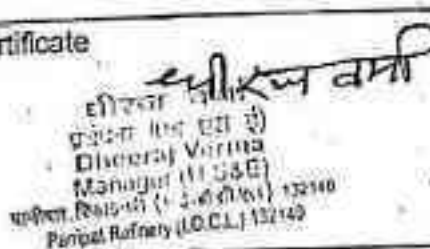

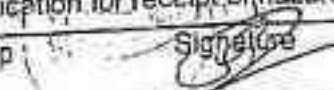
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

FORM 10
 (See rule 19 (1))

3314

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical complex Panipat - 132140			
2	Sender's authorisation No.	HWM/PII/2023/7735101			
3	Manifest Document No.	3314			
4	Transporter's name and address (Including Phone No. and e-mail)	Lined up by M/S. Mikay Narayan Polychem			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.				
7	Vehicle registration No.	HR 45 B 5 871			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S Mikay Narayan Polychem LLP, P-163, KANDRA, Phambad.			
9	Receiver's authorisation No.	JSPCB/HO/RNCHWM/ 10052121/2021/23			
10	Waste description	Spent clay (PX)			
11	Total quantity No. of Containers	20.77 m ³ or MT <input checked="" type="checkbox"/> Nos.			
12	Physical form	(Solid/Semi-Solid/Sudge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	<p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp:	Signature	Month	Day	Year
			07	20	2023
15	Transporter acknowledgment of receipt of Wastes	Signature	Month	Day	Year
	Name and stamp:		07	20	2023
16	Receiver's certification for receipt of hazardous and other waste	Signature	Month	Day	Year
	Name and stamp:		07	20	2023

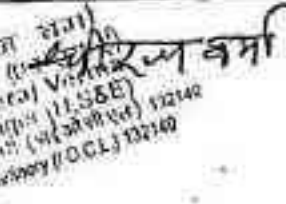
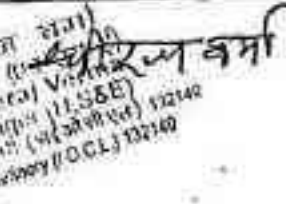
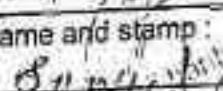

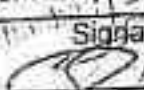
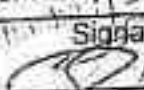
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3315**

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	Iocl Panipat Refinery & Petrochemical complex Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/7735101
3	Manifest Document No.	3315
4	Transporter's name and address (Including Phone No. and e-mail)	Lined up by MLS. Mickaynarayan Polychem
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR4SD3911
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	MLS Mickaynarayan Polychem CLP, D-163, KANDRA Phanbad
9	Receiver's authorisation No.	JSPCB/HO/RMC/HWM/ 10052121/2021/23
10	Waste description	Spent clay (PX)
11	Total quantity No. of Containers	2 Sr 50 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	Use PPE's.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp : 		Signature: 
		Month: 07 Day: 20 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp : 		Signature: 
		Month: 07 Day: 20 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp : 		Signature: 
		Month: 07 Day: 20 Year: 2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Sl. No. **3316**

**FORM 10
{See rule 19 (1)}**

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL PANIPAT REFINERY & PETROCHEMICAL COMPLEX BAHOLL, PANIPAT - 132140
2	Sender's authorisation No.	HWM/PIT/2023/7735/01
3	Manifest Document No.	3316
4	Transporter's name and address : (Including Phone No. and e-mail)	LINED UP BY BARREL SUPPLY
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR 38U 3350
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S Barrel Supply Company Plot No. 1671 HSIIDC, RAI, SONEPAT - (HR)
9	Receiver's authorisation No.	HWM/SON/2022/262177 40
10	Waste description	Spent barrels/drums of plastic
11	Total quantity No. of Containers m ³ or MT 250 L Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: Signature		Month Day Year
BARREL SUPPLY CO. [Signature]		07 21 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp: Signature		Month Day Year
RAI, SONEPAT [Signature]		07 21 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp: Signature		Month Day Year
RAI, SONEPAT [Signature]		07 21 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

FORM 10
 (See rule 19 (1))

3317

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL PANIPAT Refinery & Petrochemical Complex Bahali, Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/7735101
3	Manifest Document No.	3317
4	Transporter's name and address : (Including Phone No. and e-mail)	Lined up by Bazzel Supply
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR 38U 0488
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S Bazzel Supply Company Plot No 1671 HSIIDC, RAI, SONIPAT (HR)
9	Receiver's authorisation No.	Hwu/SON/2022/26217740
10	Waste description	Spent barrels/drums of plastic
11	Total quantity No. of Containersm ³ or MT 2501 Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Sturry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp : Signature BAZZEL SUPPLY CO.		Signature Manish Kumar Month Day Year 07 21 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp : Signature RAISONIPAT.		Signature Manish Kumar Month Day Year 07 21 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp : Signature SUPPLY PLOT NO 1671 HSIIDC, RAI, SONIPAT.		Signature Manish Kumar Month Day Year 07 21 2023

RAI, SONIPAT. Sender copy to be sent to SPCB

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, Panipat Refinery & Petrochemical complex (Baholi) Panipat - 132140			
2	Sender's authorisation No.	HW01/PET/2023/773 S/O			
3	Manifest Document No.	3318			
4	Transporter's name and address: (Including Phone No. and e-mail)	Lined up by Barrel supply.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 38 U 3350			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M.L. Barrel supply Company Plot No - 167/1, H.S.I.D.C. / RAI SONPAT (HR)			
9	Receiver's authorisation No.	HWU/SON/2022/262/7740			
10	Waste description	Spent barrel/drums of plastic			
11	Total quantity No. of Containers	2525	m ³ or MT		
		—	Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE's.			
14	Sender's Certificate	<p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp :	Signature	Month	Day	Year
			07	22	2023
15	Transporter acknowledgment of receipt of Wastes				
	Name and stamp :	Signature	Month	Day	Year
	BARREL SUPPLY CO. PLOT NO. 167/1, H.S.I.D.C. / RAI, SONPAT.		07	22	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp :	Signature	Month	Day	Year
	BARREL SUPPLY CO. PLOT NO. 167/1, H.S.I.D.C. / RAI, SONPAT.		07	22	2023

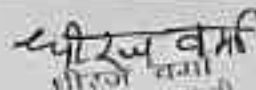
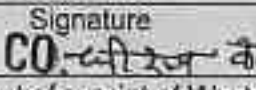
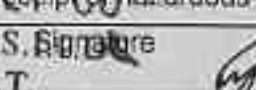
RAI, SONPAT. Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

SI. No. **3319**

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	EoCL, Panipat Refinery & Petrochemical complex, Baholi, Panipat - 132140		
2	Sender's authorisation No.	HWM/PIT/2023/7735/0		
3	Manifest Document No.	3319		
4	Transporter's name and address (Including Phone No. and e-mail)	Hired up by M/s. Barrel supply.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR38U0488		
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Barrel supply company Plot - 1671, H.S. Road RAISONEPAT, (H.R.)		
9	Receiver's authorisation No.	HCU/SON/2022/ 2627740		
10	Waste description	Spent barrels / drums of plastic		
11	Total quantity No. of Containers m ³ or MT. Nos. 2481		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE's.		
14	Sender's Certificate	<p align="center">  Signature Month <input type="text" value="07"/> Day <input type="text" value="22"/> Year <input type="text" value="20"/> <input type="text" value="23"/> </p> <p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>		
15	Transporter's acknowledgment receipt of Wastes	<p>  Signature Month <input type="text" value="07"/> Day <input type="text" value="22"/> Year <input type="text" value="20"/> <input type="text" value="23"/> </p>		
16	Receiver's certificate of receipt of hazardous and other waste	<p>  Signature Month <input type="text" value="07"/> Day <input type="text" value="22"/> Year <input type="text" value="20"/> <input type="text" value="23"/> </p>		

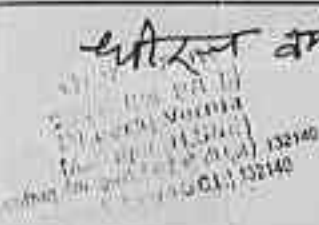
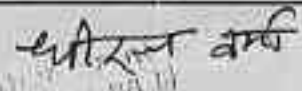
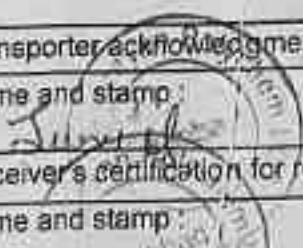
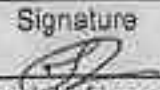

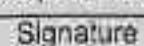
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3320**

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	EoCL, Panipat Refinery & Petrochemical complex 1 Panipat - 132140
2	Sender's authorisation No.	HM/PT/2023/7735/01
3	Manifest Document No.	3320
4	Transporter's name and address (Including Phone No. and e-mail)	Lined up by M/s Nilay narayan polychem
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 45 C 9610
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Nilay narayan Polychem LLP, D-162, KANPUR Dhambad.
9	Receiver's authorisation No.	JS PCB / HO / RNC / HM / 100 S21 21 / 2021 / 23
10	Waste description	Spent clay (ATF)
11	Total quantity No. of Containers	25.47 m ³ or MT <input checked="" type="checkbox"/> Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	U S B PPG ⁰⁵
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: 		Signature: 
		Month: 07 Day: 26 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp: 		Signature: 
		Month: 07 Day: 26 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp: 		Signature: 
		Month: 07 Day: 26 Year: 2023

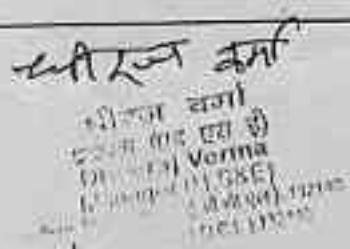
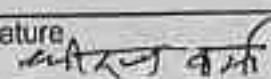
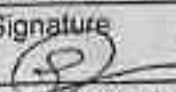
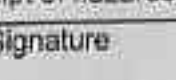
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3321**

FORM 10
 {See rule 19 (1)}

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	I O CL, Panipat Refinery & Petrochemical complex, Panipat - 132140			
2	Sender's authorisation No.	H Woy P D T / 2023 / 7735101			
3	Manifest Document No.	3321			
4	Transporter's name and address (Including Phone No. and e-mail)	Lineup by M/s. Milaynarayan Polychem			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	-			
7	Vehicle registration No.	HR 4S B 5 B 71			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Milaynarayan Polychem D-163, KANDRA, Phambad.			
9	Receiver's authorisation No.	JS PCB / H O / RNC / HWMI 100 S 2 1 2 1 / 20 2 1 / 2 3			
10	Waste description	Spent Clay (ATF)			
11	Total quantity No. of Containers:	29.98 m ³ or MT ✓ Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	 <p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
Name and stamp:		Signature	Month	Day	Year
			07	26	2023
15	Transporter acknowledgment of receipt of Wastes				
Name and stamp:		Signature	Month	Day	Year
			07	26	2023
16	Receiver's certification for receipt of hazardous and other waste				
Name and stamp:		Signature	Month	Day	Year
			07	26	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3322**

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

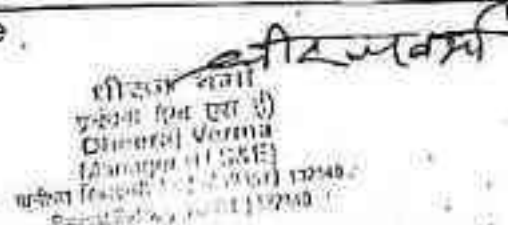
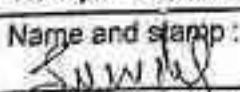

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, Panipat Refinery & Petrochemical complex, Baholi, Panipat - 132149			
2	Sender's authorisation No.	HWM/RT/2023/3735H			
3	Manifest Document No.	3322			
4	Transporter's name and address: (Including Phone No. and e-mail)	Anand Singh M/S. Nitya Narayan			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 45 C S 805			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S. Nitya Narayan Polychloro LLP) D-163, KANDRA Chambal.			
9	Receiver's authorisation No.	JSPCB/HO/RMC/HWM/ 10052721/2021/23			
10	Waste description	Spent Clay (PK)			
11	Total quantity No. of Containers	25.65 m ³ or MT ✓ Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S			
14	Sender's Certificate	<p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp:	Signature	Month	Day	Year
			08	03	2023
15	Transporter acknowledgment of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			08	03	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			08	03	2023

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3323**

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	Indian Oil Refinery & Petrochemical Complex, Bahari Panipat - 132140
2	Sender's authorisation No.	HWM / PET / 2023 / 773510
3	Manifest Document No.	3323
4	Transporter's name and address: (Including Phone No. and e-mail)	Linked up by M/s. Nilay Narayan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	-
7	Vehicle registration No.	HR 45 C 2215
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Nilay Narayan Polychem C-1, D-143, KANORA, Dhanbad
9	Receiver's authorisation No.	TS PCB / H-1 / RNC / HWM / 1005212 / 2021 / 23
10	Waste description	Spent clay (PX)
11	Total quantity No. of Containers	28.48 m ³ or MT <input checked="" type="checkbox"/> Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S,
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Signature	Month: 08 Day: 03 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
	Name and stamp:  Signature	Month: 08 Day: 03 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp:  Signature	Month: 08 Day: 03 Year: 2023

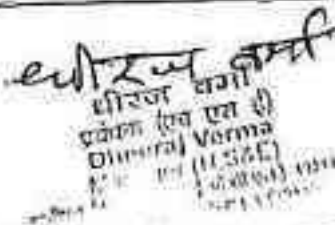
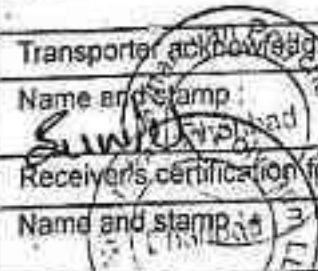
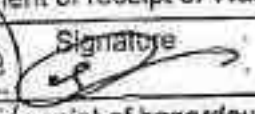
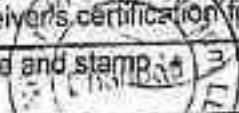
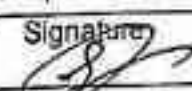
- Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3325**

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, Panipat Refinery & Petrochemical Complex, Bahadri, Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/3325/10
3	Manifest Document No.	3325
4	Transporter's name and address: (Including Phone No. and e-mail)	Linked up by M/s. Nilay Narayan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	-
7	Vehicle registration No.	HR4SCS805
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S. Nilay Narayan Polymers LLP, D-163, KANDRAS Pharwad.
9	Receiver's authorisation No.	SPCB/HO/RNC/1 HWM/10052121/2021/23
10	Waste description	Spent clay (PX)
11	Total quantity No. of Containers	24.40 m ³ or MT <input checked="" type="checkbox"/> Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE's.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:		Signature:  Month: 08 Day: 09 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	Name and stamp:  Signature:  Month: 08 Day: 09 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	Name and stamp:  Signature:  Month: 08 Day: 09 Year: 2023



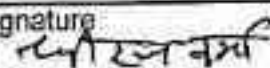
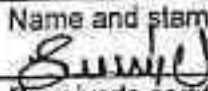

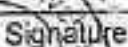


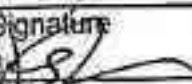
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3376**

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	2066, Panipat Refinery & Petrochemical Complex Bahawal, Panipat - 132140
2	Sender's authorisation No.	HWM/PET/2023/373510
3	Manifest Document No.	3321
4	Transporter's name and address: (Including Phone No. and e-mail)	Lined up by Mrs. Nilay Nayyar
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 45 C 221 S
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	Mrs. Nilay Nayyar Polytechnic LLB, D-167, KAMRASA, Dhambad.
9	Receiver's authorisation No.	JSPCB/HO/RNC/ HWM/100 S2121/373510
10	Waste description	Spent clay (PX)
11	Total quantity No. of Containers 27.72 m ³ or MT ✓ Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	UN3077
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:  		Signature:  Month: 08 Day: 09 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp:  		Signature:  Month: 08 Day: 09 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp:  		Signature:  Month: 08 Day: 09 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

3327

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical complex Panipat - 132140
2	Sender's authorisation No.	HW0/PIT/2023/7735101
3	Manifest Document No.	3327
4	Transporter's name and address: (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	PB13 BP 5057
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem LLP D-163 Kandra Dhambad.
9	Receiver's authorisation No.	JSPCB/HO/RNC/HW0/1005212/2021/23
10	Waste description	ECU spent catalyst
11	Total quantity No. of Containers	26.51 / or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid
13	Special handling instructions and additional information	use ppcls
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp <i>Pankaj Kumar</i> Signature		Month Day Year 08 14 2023
Transporter acknowledgment of receipt of wastes		
Name and stamp <i>Nilay Narayan Polychem</i> Signature		Month Day Year 08 14 2023
Receiver's certification for receipt of hazardous and other waste		
Name and stamp <i>Nilay Narayan Polychem</i> Signature		Month Day Year 08 14 2023


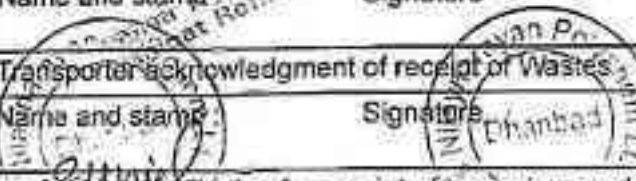
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3328**

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical Complex Bahadi Panipat - 132140
2	Sender's authorisation No.	HWMP/PIT/2023/7735701
3	Manifest Document No.	3328
4	Transporter's name and address : (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem
5	Type of vehicle:	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR 58 B 8152
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem LLP-D-163 Kandra, Dhambad
9	Receiver's authorisation No.	JSPCB/HO/RNC/HWMP/ 1005212/2021/23
10	Waste description	FCCU spent catalyst
11	Total quantity No. of Containers	26.53 ^{of} or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solids
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Signature	Month Day Year 08 14 2023
15	Transporter acknowledgment of receipt of Wastes Name and stamp:  Signatures	Month Day Year 08 14 2023
16	Receiver's certification for receipt of hazardous and other waste Name and stamp: Signature	Month Day Year 08 14 2023

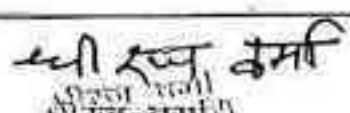
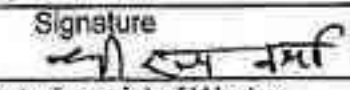
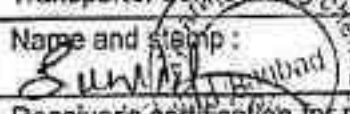
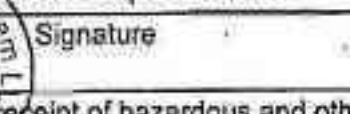
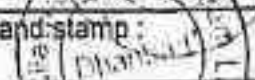

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No. **3329**

FORM 10
 (See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	I OCL Panipat Refinery & Petrochemical complex, Bahali, Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/7735/01
3	Manifest Document No.	9329
4	Transporter's name and address: (Including Phone No. and e-mail)	Handed by M/s. Nilaynarayan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR45 C 2215
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S. Nilaynarayan Polychem LLP, D-163, KANDRA Dhambad.
9	Receiver's authorisation No.	SPCB/HO/RNCL/HWM/10052121/2021/23
10	Waste description	Spent Clay (AT F)
11	Total quantity No. of Containers	17.84 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023

Sender copy to be sent to SPCB


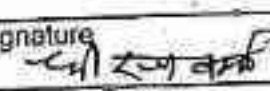
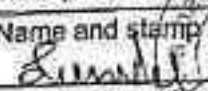
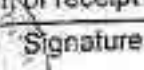
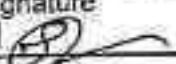
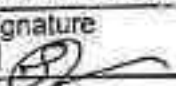
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

3330

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	Tach, Panipat Refinery & Petrochemical complex, Bahali, Panipat - 132100
2	Sender's authorisation No.	HWM/PET/2023/773510
3	Manifest Document No.	5330
4	Transporter's name and address (Including Phone No. and e-mail)	Winchup by M/s. Nilaynarayan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	-
7	Vehicle registration No.	HR 45 D 3911
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Nilaynarayan poly chem LLP, D-167, KANDRA, Pharwad.
9	Receiver's authorisation No.	JSPCB/HO/RNCL/HWM/ 10052121/2021/23
10	Waste description	Spent clay (PK)
11	Total quantity No. of Containers	18.94 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp: 		Signature: 
		Month: 08 Day: 24 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl: No.

3391

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical Complex Baholi Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/7735101
3	Manifest Document No.	3391
4	Transporter's name and address: (Including Phone No. and e-mail)	Linedup by:- m/s Barrel Supply
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 38U 3350, HR 38U 3350
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S Barrel Supply Company Plot - 1071, HSIDE RAI SONIPAT, (H.R.)
9	Receiver's authorisation No.	HWO/SON/2022/26217740
10	Waste description	Spent barrels/drums of Plastic
11	Total quantity No. of Containers m ³ or MT 250/- Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate <i>एनकेन वरमा</i>	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp :		Signature <i>एनकेन वरमा</i>
		Month Day Year 08 25 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp :		Signature
		Month Day Year 08 25 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp :		Signature
		Month Day Year 08 25 2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Sl. No.

**FORM 10
(See rule 19 (1))**

3392

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical Complex Bahali Panipat - 132140
2	Sender's authorisation No.	HUM/PIT/2020/7735/01
3	Manifest Document No.	3392
4	Transporter's name and address : (Including Phone No. and e-mail)	Lined up: - M/s Barrel Supply
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 38 Y 7685
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s Barrel Supply Company Plot - 1071, HSIDE RAJ Sonipat (HR)
9	Receiver's authorisation No.	HWO/SOJ/2022/20217740
10	Waste description	Spent barrels/drumms of Plastic
11	Total quantity No. of Containers m ³ or MT Nos. 250/
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp : Signature		Month Day Year 08 25 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp : Signature		Month Day Year 08 25 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp : Signature		Month Day Year 08 25 2023

Sender copy to be sent to SPCB


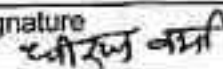
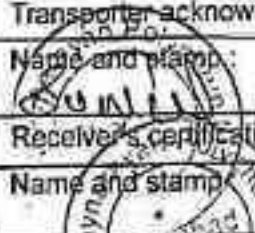

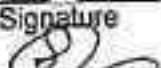
**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Sl. No.

3393

**FORM 10
(See rule 19 (1))**

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical Complex, Panipat, 132140			
2	Sender's authorisation No.	HWM/PIT/2023/773 Slol			
3	Manifest Document No.	3393			
4	Transporter's name and address: (Including Phone No. and e-mail)	Hired up by Mr. Nilay Narayan			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	UP 12 AT 1165			
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s. Nilay Narayan Polychem. LLP, D-163, KANDRA, Dhambad.			
9	Receiver's authorisation No.	JSPCB/HO/RNCHWM/1 10052121/2021/23			
10	Waste description	Spent Catalyst (- FCC)			
11	Total quantity No. of Containers	26.58	m ³ or MT	<input checked="" type="checkbox"/>	
			Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S,			
14	Sender's Certificate	 <p>I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.</p>			
	Name and stamp	Signature	Month	Day	Year
			09	19	2023
15	Transporter acknowledgment of receipt of Wastes				
	Name and stamp	Signature	Month	Day	Year
			09	19	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp	Signature	Month	Day	Year
			09	19	2023

Sender copy to be sent to SPCB

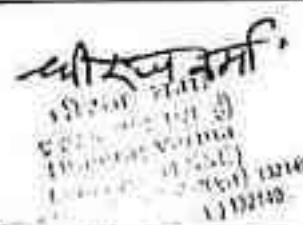
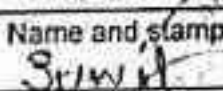
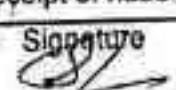
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

SI No

FORM 10
 (See rule 19 (1))

3394

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	EoCL Panipat Refinery & Petrochemical complex, Panipat - 132114
2	Sender's authorisation No.	HWMPIT/2023/77351d
3	Manifest Document No.	3394
4	Transporter's name and address (Including Phone No. and e-mail)	Lined up by M/S. Nitya narayan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR69D2508
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S. Nitya narayan Pdy chand P D-163, KANORA, Dhambad
9	Receiver's authorisation No.	JSPCB / H20 / RMC / HWM / 10052121 / 2021 / 23
10	Waste description	Spent catalyst (P.GC)
11	Total quantity No. of Containers	23.25 m ³ or MT ✓ Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	Use PPE's.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp : 		Signature Shri. Nitya Narayan
		Month Day Year 09 19 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp : 		Signature
		Month Day Year 09 19 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp : 		Signature
		Month Day Year 09 19 2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Sl. No.

**FORM 10
(See rule 19 (1))**

3396

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical Complex, SAHDLI, Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3396
4	Transporter's name and address: (Including Phone No. and e-mail)	SAI Waste Management Co. Vill - Shambhupura, Chittorgarh, Rajasthan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	RPCB/HWM/2021-22/HSW-21
7	Vehicle registration No.	GJ 16 AW 1610
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/S SHREE CEMENT LTD. Vill - Ras, Teh - Jaitaran, Dist - Pali, Rajasthan
9	Receiver's authorisation No.	RPCB/HWM/2020-2021/ HSW/HSW/80
10	Waste description	(HW Cat - 1.3) PTA ETP Chemical Sludge
11	Total quantity No. of Containers	31.870 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Sturry/Liquid)
13	Special handling instructions and additional information	USE PPEs
14	Sender's Certificate टिळक सिंह TILAK SINGH प्रबंधक (एच.एस.एच. ई.) Manager (HS&E) पानीपत रिफाइनरी (आई.ओ.सी.एल.) पानीपत - 132140 Panipat Refinery (I.O.C.L.) Panipat - 132140	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:		Month: 10, Day: 05, Year: 2023
15	Transporter acknowledgment of receipt of Wastes	
Name and stamp:		Month: 10, Day: 05, Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp:		Month: 10, Day: 05, Year: 2023

Sender copy to be sent to SPCB


Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Sl. No.

FORM 10
(See rule 19 (1))

3397

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL Panipat Refinery & Petrochemical complex Baholi, Panipat - 132140
2	Sender's authorisation No.	HWM/PIT/2023/4477 5413
3	Manifest Document No.	3397
4	Transporter's name and address : (Including Phone No. and e-mail)	Sia. Waste management co Rajasthan
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	RPCB/HWM/2021-22/HSW-21
7	Vehicle registration No.	UJ16AV 9031
8	Receiver's name and mailing Address (Including Phone No. and e-mail)	M/s SUREE CEMENT PVT LTD VILL - Ras - Jaitram, Distt - Pali Rajasthan
9	Receiver's authorisation No.	RPCB/HWM/202021/ HSW/HSW/80
10	Waste description	(HW cat - 1.3) Chemical sludge.
11	Total quantity No. of Containers	26.97 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	 Pankaj Kumar O (HS&E) Panipat Refinery (I.O.C.L) 132140	Name and stamp: _____ Signature: _____ Month: 10 Day: 07 Year: 2023
15	Transporter acknowledgment of receipt of Wastes	Name and stamp: _____ Signature: _____ Month: 10 Day: 02 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	Name and stamp: _____ Signature: _____ Month: 10 Day: 07 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

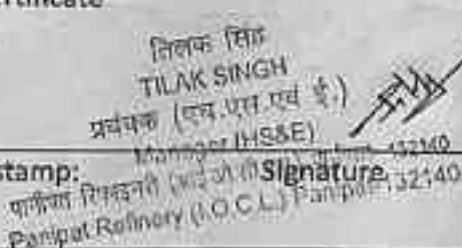


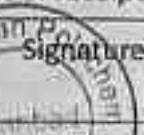
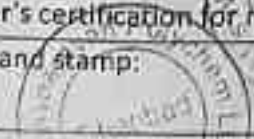
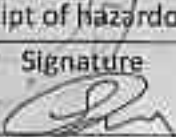
3701

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3701		
4	Transporter's name and address ; (including Phone No. and e-mail)	Aged M/S. Nilay namyan Poly chem CLB		
5	Type of vehicle	<input checked="" type="checkbox"/> (Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	-		
7	Vehicle registration No.	HR 58 B 0152		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilay namyan Poly chem LPSD-163, RNo-485, KANDRA, Gvindpur, Dhandu,		
9	Receiver's authorization No.	JSPCB/Hol RNC/HWM-10052121/ 2021/23		
10	Waste Description	(col-5,2 (ch-3))	waste/residues containing oil	
11	Total quantity No. of Containers	32.89		m ³ or MT <input checked="" type="checkbox"/> Nos.
12	Physical form	<input checked="" type="checkbox"/> (Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp; Signature	Month	Day	Year
		10	10	2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp; Signature	Month	Day	Year
		10	10	2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp; Signature	Month	Day	Year
		10	10	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10
 (See rule 19(1))
MANIFEST FOR HAZARDOUS AND OTHER WASTE

3703

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3703		
4	Transporter's name and address : (including Phone No. and e-mail)	Linked up by M/S. Nilay Narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	UP12AT1165		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilay Narayan Polychem LLP-167, Phokhri, KANDRA, Gairindpur, Dhambad.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM/10052121/2021123		
10	Waste Description	eat-S.2 (sch. I)	Wastes/Residues containing oil.	
11	Total quantity No. of Containers	34.60 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
	 Tilak Singh प्रबंधक (एच.एस.एच.ई.) Manager (HS&E) Panipat Refinery (IOCL) Panipat-132140		10	11
			20	23
15	Transporter acknowledgement of receipt of Wastes	Signature	Month	Day
	Name and stamp:	Signature	Month	Day
	 Nilay Narayan Polychem		10	11
			20	23
16	Receiver's certification for receipt of hazardous and other waste	Signature	Month	Day
	Name and stamp:	Signature	Month	Day
	 JSPCB		10	11
			20	23

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

3704

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3704		
4	Transporter's name and address : (including Phone No. and e-mail)	M/S. Associated Road Carriers, Panipat.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	-		
7	Vehicle registration No.	RJ 11 GC 1304		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Ashitadhatu Ferrometals Pvt. Ltd. PH No. 011 Kh No 65/ (L3-4) (66, 660 (1-6), Tilda, Rai pur, Gh.		
9	Receiver's authorization No.	327/140/H SMD/CECB/ATAL NAGAR, RAIPUR		
10	Waste Description	Spent catalyst (NHT)		
11	Total quantity No. of Containers	17.94 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE, PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature Raj Kumar Verma	Month 10	Day 13
				Year 2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature Raj Kumar	Month 10	Day 13
				Year 2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature Raj Kumar	Month 10	Day 13
				Year 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3705

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3705		
4	Transporter's name and address : (Including Phone No. and e-mail)	Hired by M/s. Allied Industrial Tinsukia, Assam		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	-		
7	Vehicle registration No.	MP 07 HB 5791		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Allied Industrial, Makumra Puthi Tinsukia, Assam		
9	Receiver's authorization No.	WB/OTWA/HW-25/120-21/129		
10	Waste Description	Cat. S1 (Sch-2) Used/spent oil (V.M)		
11	Total quantity No. of Containers	20187 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
		<i>धीरज वर्मा</i>	10	13
				Year
				2023
15	Transporter's acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
		<i>Proprietor</i>	10	13
				Year
				2023
16	Receiver's acknowledgement of receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
		<i>Proprietor</i>	10	13
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3707

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3707		
4	Transporter's name and address : (Including Phone No. and e-mail)	Lined up by M/s. Nilay narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	PB 13 BB 6555		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Nilay narayan Polychem LLP, P-167 P.No-485, KANPRA, Govindpur, Dhanbad		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-1005212/2021/23		
10	Waste Description	Waste/Residues containing oil		
11	Total quantity No. of Containers	3019) m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: Panipat Refinery (I.O.)	Signature	Month	Day
			10	10
			Year 2023	
15	Transporter acknowledgement of receipt of wastes Name and stamp:	Signature	Month	Day
			10	16
			Year 2023	
16	Receiver's certification for receipt of hazardous and other waste Name and stamp:	Signature	Month	Day
			10	16
			Year 2023	

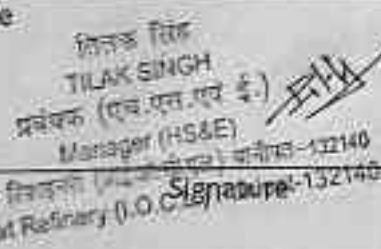
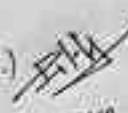
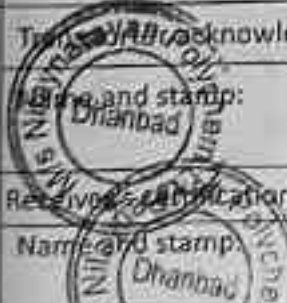
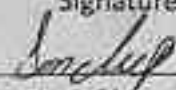
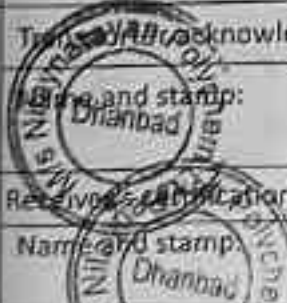
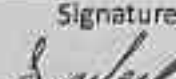
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3708

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3708		
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/S. Nilay narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR4SD6078		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilay narayan Polychem LLP, D-167, P.No. 4 & 5, KANDRA, Gwind Pul, Phambad.		
9	Receiver's authorization No.	JSPCB/HOI/RNC/HWM-10052121/2021/23		
10	Waste Description	cat 9.2 (Sch-I) Wastes/Residues containing all		
11	Total quantity No. of Containers	34.59 m ³ or MT <input checked="" type="checkbox"/> Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) <input checked="" type="checkbox"/>		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp of Panipat Refinery (I.O.C. Ltd.)	Signature	Month	Day
			10	19
			Year	20 23
15	Transporter's acknowledgement of receipt of Wastes	Signature	Month	Day
			10	19
			Year	20 23
16	Receiver's acknowledgement for receipt of hazardous and other waste	Signature	Month	Day
			10	19
			Year	20 23

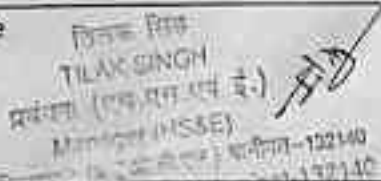
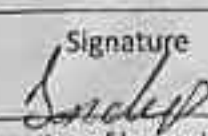
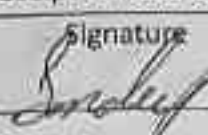
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3709

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3709		
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/s. Nilay Narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	UP 13 T 4852		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Nilay Narayan Polychem LLP, D-167, P.W.O-4 & 5, KANDRA, Govindpur, Dhanbad.		
9	Receiver's authorization No.	JSPCB/HO/RHC/HWM-1005212/2021/23		
10	Waste Description	cat S-2 (sch-I) Waste / Residue containing oil		
11	Total quantity No. of Containers	40.42 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: 	Month	Day	Year
		10	19	20 23
15	Transporter's Acknowledgement of receipt of Wastes			
	Name and stamp: 	Month	Day	Year
		10	19	20 23
16	Receiver's Acknowledgement for receipt of hazardous and other waste			
	Name and stamp: 	Month	Day	Year
		10	19	20 23

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3710

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3710		
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/s. Nilay Narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR45C2215		
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/S. Nilay Narayan Polychem LLP, D-167, P.No- 445, KANDRA, Gurindpur, Dhanbad.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23		
10	Waste Description	Waste/Residue containing oil.		
11	Total quantity	32.89 m ³ or MT		
	No. of Containers	Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	Use PPE's.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and Stamp	Signature	Month	Day
	Panipat Refinery (I.O.C.L.) Panipat-132140		10	20
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and Stamp	Signature	Month	Day
			10	20
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and Stamp	Signature	Month	Day
			10	20
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3711

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3711		
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/S. Nilaymarayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR58C9826		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilaymarayan Polychem LLP, D-167, P.No. 4 & 5, KANDRA, Gouindpur, Dhanbad		
9	Receiver's authorization No.	JSPCB/HO/RNCL/HWM-1005212/2021/23		
10	Waste Description	cat 5.2 (sch-I) Wastes/Residuals containing oil.		
11	Total quantity No. of Containers	40.55 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			10	26
				Year
				2023
15	Transporter's acknowledgement of receipt of Wastes	Name and stamp:	Signature	Month
				10
				Day
				26
				Year
				2023
16	Receiver's acknowledgement of receipt of hazardous and other waste	Name and stamp:	Signature	Month
				10
				Day
				26
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10
 [See rule 19 (1)]
MANIFEST FOR HAZARDOUS AND OTHER WASTE

3712

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3712
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/s Nilay Narayan Poly Chem. LLP.
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 58 B 8152
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/s Nilay Narayan Poly Chem. LLP, D-167, P.No.-425, KANDRA, Gaurindpur, Phankal
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052/21/2021/23
10	Waste Description	cut 5-2 sch p) wastes / Residues containing oil.
11	Total quantity No. of Containers	32.30 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:		Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023
Transporter's acknowledgement of receipt of Wastes		
Name and stamp:		Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023
Receiver's verification for receipt of hazardous and other waste		
Name and stamp:		Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3713

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3713
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by m/s Nilday Naryan Poly Chem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 45 C 5805
8	Receiver's name & mailing address (Including Phone No. and e-mail)	MS Nilday Naryan Poly Chem LLP, D/117 P.N.D. - 4 & 5, KANDRA Govindpur Dhanbad
9	Receiver's authorization No.	JSPCB/HO/RNE/HWM-10052121/2021/23
10	Waste Description cat 5.2 sch. I F)	Wastels / Residues containing oil
11	Total quantity No. of Containers	23.75 m ³ or MT ✓ Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate धीरज वर्मा General Manager (HSE) Indian Oil Corporation Limited	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:	Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023
15	Transporter's acknowledgement of receipt of Wastes	
	Name and stamp:	Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023
16	Receiver's acknowledgement for receipt of hazardous and other waste	
	Name and stamp:	Signature: <i>[Signature]</i> Month: 10 Day: 26 Year: 2023

Sender copy to be sent to SPCB

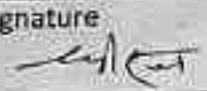

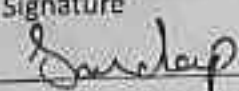
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3714

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3714
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/S Nilay Naryan Poly Chem. LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 45 C 9618
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/S Nilay Naryan Poly Chem. LLP, D-167 PM, U.E. 5, KANDRA, Gaudindpur, Dhanbad
9	Receiver's authorization No.	JSPC B/MO/RNC/HWM - 10052121 / 2021/22
10	Waste Description	cut s-2 sch. (F) Wastels Residues containing oil
11	Total quantity	24.57 m ³ or MT
	No. of ContainersNos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:	Signature:  Month: 10 Day: 26 Year: 2023
	Transporter's acknowledgement of receipt of Wastes	
15	Name and stamp:	Signature:  Month: 10 Day: 26 Year: 2023
	Receiver's certification for receipt of hazardous and other waste	
16	Name and stamp:	Signature:  Month: 10 Day: 26 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3715

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3715		
4	Transporter's name and address : (including Phone No. and e-mail)	M/S Sai Waste Management		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	GJ 16 AV 9029		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S Shree Cement Ltd. Bangur City Rajasthan.		
9	Receiver's authorization No.	RPCB/HWM/2020-2027/CPM/H80/09		
10	Waste Description	Oily Sludge (Chemical Sludge)		
11	Total quantity No. of Containers	24.510	m ³ or MT	<input checked="" type="checkbox"/>
		—	Nos.	
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) oily sludge		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp	Signature	Month	Day
			10	26
	Year			
			20	23
15	Transporter's acknowledgement of receipt of Wastes			
	Name and stamp	Signature	Month	Day
			10	26
	Year			
			20	23
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp	Signature	Month	Day
			10	26
	Year			
			20	23

Sender copy to be sent to SPCB

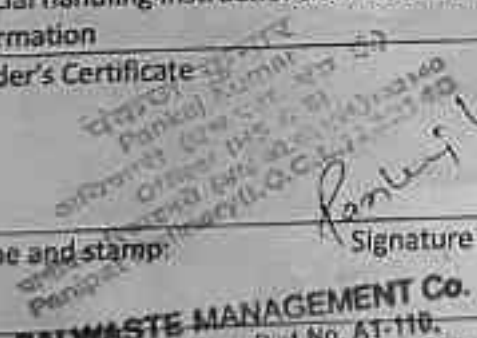


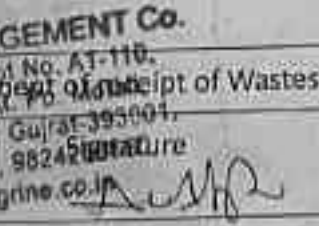
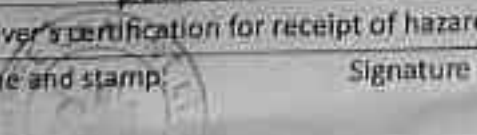
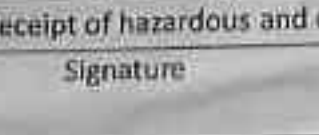
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3716

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3716
4	Transporter's name and address : (including Phone No. and e-mail)	M/S Sai Waste Management
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	GJ16 AV 4538
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/S Shree Cement Ltd. Bangue City Rajasthan
9	Receiver's authorization No.	RPCB/HWM/2020-2027/CPM/ HSW/69
10	Waste Description	oily sludge (chemical)
11	Total quantity No. of Containers	26.190 or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) oily sludge
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Signature: 	Month: 10 Day: 26 Year: 2023
15	Name and stamp:  Signature: 	Month: 10 Day: 26 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste Name and stamp:  Signature: 	Month: 10 Day: 26 Year: 2023

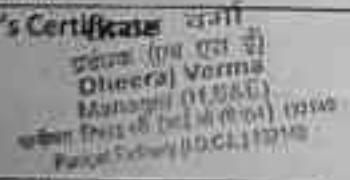
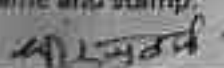
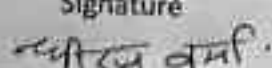

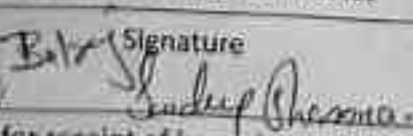

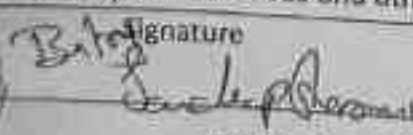
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3718

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3718
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/s. Nilay natarayan Polychem LLP.
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR45C 9618
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/s. Nilay natarayan Polychem LLP, P-167, P.No. 425, KANDRA, Govindpur, Phambad.
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-1005212/2021/23
10	Waste Description	cat 4-I SCH(II), Oily Sludge (Residual)
11	Total quantity No. of Containers	23.73 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	Use PPE's.
14	Sender's Certificate 	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: 		Signature: 
		Month: 11 Day: 09 Year: 2023
15	Transporter's acknowledgement of receipt of Wastes	
Name and stamp: 		Signature: 
		Month: 11 Day: 09 Year: 2023
16	Receiver's authorization for receipt of hazardous and other waste	
Name and stamp: 		Signature: 
		Month: 11 Day: 09 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3719


MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3719			
4	Transporter's name and address : (including Phone No. and e-mail)	M/s. M.P. Quick service lined up by M/s. Premier Refractory.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	CG 04 PC 6170			
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/s Premier Refractories of India Pvt Ltd, Plot No - 4152013, NKJ KATNI, MUDHOLA KATNI, M.P.			
9	Receiver's authorization No.	AWH-56405			
10	Waste Description	Spent Catalyst, (Chloride based)			
11	Total quantity No. of Containers	24.81 m ³ or MT ✓ Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			11	09	2023
15	Transporter's certificate of receipt of Wastes	M.P. QUICK SERVICE			
	Name and stamp:	Signature	Month	Day	Year
	AW-9, Ground Floor, Sanjay Gandhi Transport Nagar, Delhi-110042 E-mail: mpquick3333@gmail.com		11	09	2023
16	Receiver's certification for receipt of hazardous and other waste	Premier Refractories of India Pvt. Ltd.			
	Name and stamp:	Signature	Month	Day	Year
	New Katni, Jn., P.O. Box No. 9 Katni-483501 (M.P)		11	09	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10
 [See rule 19 (1)]
MANIFEST FOR HAZARDOUS AND OTHER WASTE

3720

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3720
4	Transporter's name and address : (including Phone No. and e-mail)	M/S. M.P. Buick Service lined up by M/S. Premier Refractory.
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	CG 04 PE 9570
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/S. Premier Refractory of India Pvt. Ltd. Plot No - 4152 Old, NKJ KATNI, MUDHAR KATNI, M.P.
9	Receiver's authorization No.	AWH-56405
10	Waste Description	Spent Catalyst (Peroxchloride)
11	Total quantity No. of Containers	22.75 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S.
14	Sender's Certification  Name and stamp: _____ Signature: _____ Month: <input type="text" value="11"/> <input type="text" value="11"/> Day: <input type="text" value="09"/> <input type="text" value="09"/> Year: <input type="text" value="20"/> <input type="text" value="23"/>	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
15	Transporter acknowledgement of receipt of Wastes Name and stamp: _____ Signature: _____ Month: <input type="text" value="11"/> <input type="text" value="11"/> Day: <input type="text" value="09"/> <input type="text" value="09"/> Year: <input type="text" value="20"/> <input type="text" value="29"/>	
16	Receiver's certification for receipt of hazardous and other waste Name and stamp: _____ Signature: _____ Month: <input type="text" value="11"/> <input type="text" value="11"/> Day: <input type="text" value="09"/> <input type="text" value="09"/> Year: <input type="text" value="20"/> <input type="text" value="29"/>	

Sender copy to be sent to SPCB
 Authorised Signature

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3721

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3721			
4	Transporter's name and address : (including Phone No. and e-mail)	Lined up by M/S. Nilay Narayan Polychem LLP			
5	Type of vehicle	<input checked="" type="checkbox"/> (Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR45C 5805			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilay Narayan Polychem LLP D-16 R/No -445, KANDRA, GONDIPUR, Dhanbad.			
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23			
10	Waste Description	Oily Sludge (Residual)			
11	Total quantity No. of Containers	23072 m ³ or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate <small>डी.सी.ए. प्रमाण (पेट्रो पदार्थ) Director (Petroleum) Manager (IOCL) कार्यालय, पानिपत (एन.डी.ए.पी.) 132140 Panipat Refinery (IOCL) 132140</small>	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
Name and stamp:		Signature	Month	Day	Year
			11	10	2023
Transporter's acknowledgement of receipt of Wastes					
15	Name	Signature	Month	Day	Year
			11	10	2023
Receiver's certificate of receipt of hazardous and other waste					
16	Name and stamp	Signature	Month	Day	Year
			11	10	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3722

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3722			
4	Transporter's name and address : (including Phone No. and e-mail)	Linedrup by M/S. Nilay narayan Polychem LLP.			
5	Type of vehicle	<input checked="" type="checkbox"/> (Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 45 C 5805			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S Nilay narayan Polychem LLP D-117, P.No-485, KANORA, Govindpur, Dhanbad			
9	Receiver's authorization No.	JSPCB/HO/RMC/HWM-100522/2021/29			
10	Waste Description	Oily sludge (residual)			
11	Total quantity No. of Containers	2643 m ³ or MT <input checked="" type="checkbox"/> Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			11	12	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			11	12	2023
16	Receiver's Certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			11	12	2023

Sender copy to be sent to SPCB

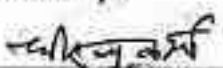
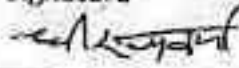

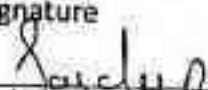

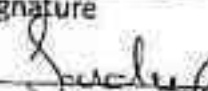
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3723

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3723
4	Transporter's name and address : (including Phone No. and e-mail)	Greenup by Mrs. Mihir Narayan Polychem LLP.
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	HR 45 B 5 871
8	Receiver's name & mailing address (including Phone No. and e-mail)	Mrs. Mihir Narayan Polychem LLP, D-167, P.No-425, KANPRA, Goulindpur, Dhanbad.
9	Receiver's authorization No.	JSPCB/HO/RMC/HWM-10052121/2021123
10	Waste Description	Dirty sludge (Chemical)
11	Total quantity No. of Containers	28.23 m ³ or MT ✓ Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: 		Signature:  Month: 11 Day: 17 Year: 2023
Transporter's acknowledgement of receipt of Wastes		
Name and stamp: 		Signature:  Month: 11 Day: 17 Year: 2023
Receiver's certificate for receipt of hazardous and other waste		
Name and stamp: 		Signature:  Month: 11 Day: 17 Year: 2023

Sender copy to be sent to SPCB

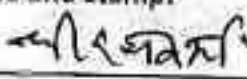
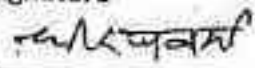

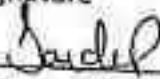

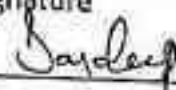
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3724

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3724
4	Transporter's name and address : (including Phone No. and e-mail)	Gandepthy M.S. Niulay niulay - Petrochem LLP.
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	PB 05 A P 7870
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M.S. Niulay niulay Petrochem LLP, P-167, Piro-465, KANORA, Govindpur, Dhanbad
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052/21/2021/23
10	Waste Description	Spent Catalyst (PCC)
11	Total quantity No. of Containers	27.66 m ³ or MT <input checked="" type="checkbox"/> Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:  Signature: 		Month: <input type="text" value="11"/> Day: <input type="text" value="20"/> Year: <input type="text" value="2023"/>
Transporter acknowledgement of receipt of Wastes		
Name and stamp:  Signature: 		Month: <input type="text" value="11"/> Day: <input type="text" value="20"/> Year: <input type="text" value="2023"/>
Receiver's certification for receipt of hazardous and other waste		
Name and stamp:  Signature: 		Month: <input type="text" value="11"/> Day: <input type="text" value="20"/> Year: <input type="text" value="2023"/>

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3725

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3725			
4	Transporter's name and address : (Including Phone No. and e-mail)	Handed by M/S - Mitayn aryan polychem LLP			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	UP 12CT 0147			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Mitayn aryan polychem LLP, B-67, PLOT 4 & 5, KANDRA, GOVINDPUR, DHANU			
9	Receiver's authorization No.	# JS PCB (NO LRNC) HWM-1005212-2021/23			
10	Waste Description	Spent Catalyst (F.C.C.)			
11	Total quantity No. of Containers	28+38 m ³ or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE's.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
Name and stamp:		Signature	Month	Day	Year
			11	20	2023
15	Transporter acknowledgement of receipt of Wastes				
Name and stamp:		Signature	Month	Day	Year
			11	20	2023
Receiver's certificate for receipt of hazardous and other waste					
Name and stamp:		Signature	Month	Day	Year
			11	20	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3726

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3726			
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.				
7	Vehicle registration No.	HR58C7023			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S Nilay Narayan Polychem LLP			
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-1005212/2021/23			
10	Waste Description	Waste/Residues contaminated oil			
11	Total quantity No. of Containers	31.15 / or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE's			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			21	22	2023
15	Transporter acknowledgement of receipt of Wastes	Signature	Month	Day	Year
			11	22	2023
16	Receiver's certification for receipt of hazardous and other waste	Signature	Month	Day	Year
			11	22	2023

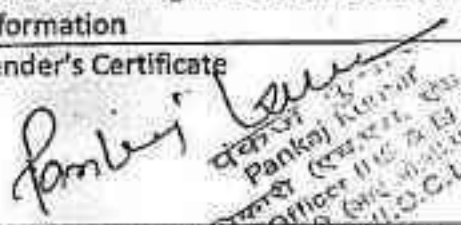
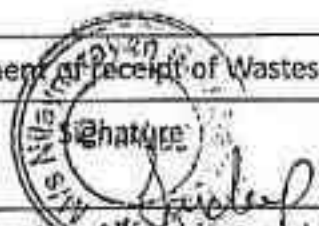
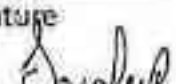
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3727

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3727		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Petychem		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C 9050		
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/s Nilay Narayan Petychem LLP		
9	Receiver's authorization No.	JSPCB/HD/RNC/HWM-10052121/2021/23		
10	Waste Description	Waste Residue contaminated oil		
11	Total quantity No. of Containers	38.79	<input checked="" type="checkbox"/>	or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: 	Signature	Month 11	Day 22 Year 2023
15	Transporter acknowledgement or receipt of Wastes			
	Name and stamp: 	Signature	Month 11	Day 22 Year 2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp: 	Signature	Month 11	Day 22 Year 2023

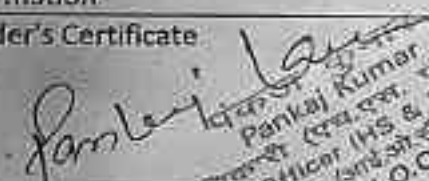
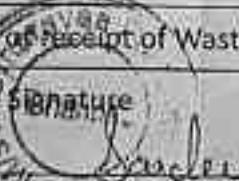

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3728

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3728		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem Ltd		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	HR 58C 6358		
7	Vehicle registration No.			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	m/s Nilay Narayan Polychem Ltd Kandla govt rd pur Dhanbad		
9	Receiver's authorization No.	JSPCB/HOI/RNC/Hwm-10052/21/ 2021/23		
10	Waste Description	waste Residue containing oil		
11	Total quantity No. of Containers	85.31	/ or MT	Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:  Pankaj Kumar Officer (HS & E) Panipat Refinery (I.O.C.L.) 132140	Signature	Month 11	Day 22
			Year 2023	
15	Transporter acknowledgement or receipt of Wastes			
	Name and stamp:  Sudeep	Signature	Month 11	Day 22
			Year 2023	
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:  Sudeep	Signature	Month 11	Day 22
			Year 2023	

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3729

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3729
4	Transporter's name and address : (including Phone No. and e-mail)	Kind up m/s. Allied Industries Tinsukia, Assam
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	—
7	Vehicle registration No.	RJ11GB0927
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Allied Industries, Makum, Dist. Tinsukia, Assam.
9	Receiver's authorization No.	WB10TWA/HW-351/20-21/129
10	Waste Description	cat 5.1 (sch-I) Used / spent oil (vir.)
11	Total quantity No. of Containers	13.59 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	Use PPE's.
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp: Signature		Month Day Year
[Signature]		[11] [22] [2023]
Transporter acknowledgement of receipt of Wastes		
Name and stamp: For Allied Industries		Month Day Year
[Signature]		[11] [22] [2023]
Receiver's certification for receipt of hazardous and other waste		
Name and stamp: For Allied Industries		Month Day Year
[Signature]		[11] [22] [2023]

Prohibited

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19(1)]

3731

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3731		
4	Transporter's name and address : (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR45D6078		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra, Dhanbad Jharkhand		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/ 2021/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	40.51 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular Solid		
13	Special handling instructions and additional information	Use PPE's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			11	24
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			11	24
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			11	24
				Year
				2023



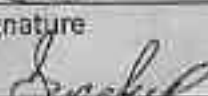
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3732

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3732
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR45B 5871
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Landra Dumbad Jharokh
9	Receiver's authorization No.	JSPCB/HO/RNC/Hwm-10052121/ 2021/23
10	Waste Description	Process Residue
11	Total quantity No. of Containers:	27.41 / or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Signature	Month: 11 Day: 24 Year: 2023
Transporter acknowledgement of receipt of Wastes		
15	Name and stamp:  Signature	Month: 11 Day: 24 Year: 2023
Receiver's certification for receipt of hazardous and other waste		
16	Name and stamp:  Signature	Month: 11 Day: 24 Year: 2023

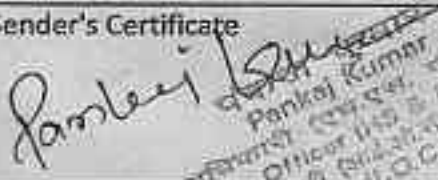

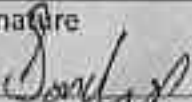
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3733

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3733		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C6358		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dhambad		
9	Receiver's authorization No.	JSPCB/Ho/RNC/Hwm-1005212/ 2021/23		
10	Waste Description	Residual sludge		
11	Total quantity No. of Containers	26.58 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			11	29
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			11	29
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			11	29
				2023







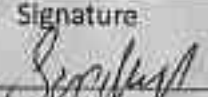
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3734

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3734		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C9050		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dhambad		
9	Receiver's authorization No.	JSPCB/HO/RNC/Hwm - 10052121/ 2021-23		
10	Waste Description	Residual Sludge		
11	Total quantity No. of Containers	27.29 <input checked="" type="checkbox"/> or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	Use PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
	 		11	29
	Year	2023		
15	Transporter acknowledgment of receipt of Wastes	Signature	Month	Day
			11	29
	Year	2023		
16	Receiver's certification for receipt of hazardous and other waste	Signature	Month	Day
			11	29
	Year	2023		

Sender copy to be sent to SPCB

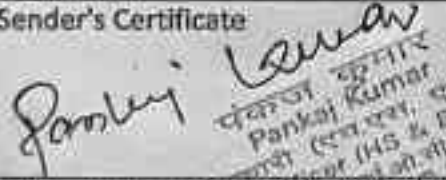


Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3735

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3735
4	Transporter's name and address : (including Phone No. and e-mail)	M/s Barrel Supply
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	HR 38 Z 3773 L
7	Vehicle registration No.	HR 69 B 8063
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s Barrel supply company Plot no 167 HSIIDC Sonapat
9	Receiver's authorization No.	HW U/SO/N/2022/26217740
10	Waste Description	Plastic DRUM
11	Total quantity No. of Containers	254 + 222 m ³ or MT = 476 Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Pankaj Kumar Officer (HS & E) Panipat Refinery (I.C.S.I.) 132140	Signature Month: 11 Day: 29 Year: 2023
15	Transporter acknowledgement of receipt of Waste	
	Name and stamp:  BARREL SUPPLY CO PLOT NO. 167, H.S.I.I.D.C. RAISONEPAT.	Signature Month: 11 Day: 29 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp:  BARREL SUPPLY CO PLOT NO. 167, H.S.I.I.D.C. RAISONEPAT.	Signature Month: 11 Day: 29 Year: 2023

Sender copy to be sent to SPCB

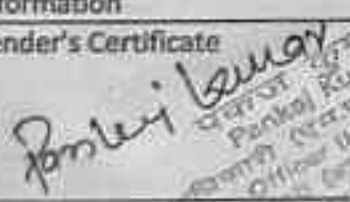


Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3736

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3736
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	PB05AF7878
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dharbad Jharkhand
9	Receiver's authorization No.	JSPCB/HO/RNC/Hwm-1005212/2021/23
10	Waste Description	Process Residue
11	Total quantity No. of Containers	40.95 / or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Pankaj Kumar Officer (HS & E) Panipat Refinery (I.O.C.L.) 132140	Signature Month: 12 Day: 02 Year: 2023
15	Transporter acknowledgement of receipt of Wastes	
	Name and stamp:  Nilay Narayan Officer M/S Nilay Narayan Polychem LLP	Signature Month: 12 Day: 02 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp:  Enduser M/S Nilay Narayan Polychem LLP	Signature Month: 12 Day: 02 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3737

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3737			
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.				
7	Vehicle registration No.	HR58C7023			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kankra Dumbad Jharkhand			
9	Receiver's authorization No.	JSPCB/HQ/RNC/HWM-10052121/ 2021/23			
10	Waste Description	Process Residue			
11	Total quantity No. of Containers	39.44 m ³ or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.			
13	Special handling instructions and additional information	Use PPE'S			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	02	2023
15	Transporter acknowledgement receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	02	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	02	2023

Sender copy to be sent to SPCB

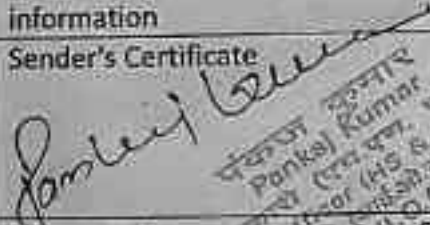

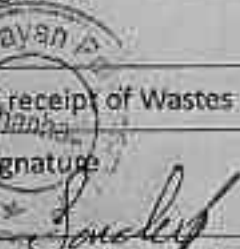

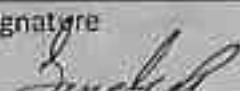

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3738

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3766
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR5BC1456
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Leandro Dhanbad Jharkhand
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/ 2021/23
10	Waste Description	Process Residue
11	Total quantity No. of Containers	39.44 38.16 m ³ or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  	Signature Month: 12 Day: 02 Year: 2023
15	Transporter acknowledgement of receipt of Wastes Name and stamp:  	Signature Month: 12 Day: 02 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste Name and stamp:  	Signature Month: 12 Day: 02 Year: 2023

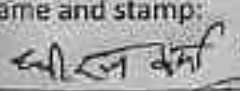
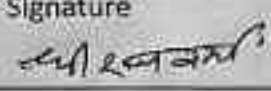
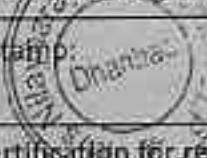
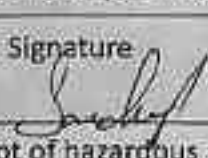

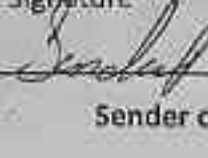
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3739

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3739		
4	Transporter's name and address : (including Phone No. and e-mail)	Linkup by M/S Nilay Narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR 5BC 6358		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/S. Nilay Narayan Polychem LLP, P-167, KANDRA, Dhanbad, Jharkhand		
9	Receiver's authorization No.	JSPCB/HO/RMC/HWM-2023/123		
10	Waste Description	Oily Sludge (Residual)		
11	Total quantity No. of Containers	30.77 m ³ or MT <input checked="" type="checkbox"/> Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	Use PPE'S.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	05
	Year	2023		
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	05
	Year	2023		
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	05
	Year	2023		

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule-19 (1)]

3740

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3740			
4	Transporter's name and address : (Including Phone No. and e-mail)	Linsuphy M/s. Milay Narayan Polychem LLP.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 58 C 9050			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Milay Narayan Polychem LLP, D-167, P.O. 445, KANDRAZI, Area Goulindpur, Dhanbad			
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23			
10	Waste Description	Oily Sludge (Residual)			
11	Total quantity No. of Containers	27.53 m ³ or MT <input checked="" type="checkbox"/> Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE's.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	05	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	05	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	05	2023

Sender copy to be sent to SPCB


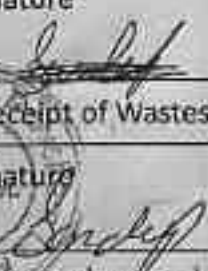
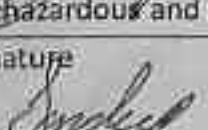
Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3742

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3742
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR58B3168
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Khandra Dharbad Sharada
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23
10	Waste Description	Process Residue
11	Total quantity No. of Containers	35.30 / or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:  Signature	Month: 12 Day: 07 Year: 2023
15	Transporter acknowledgement of receipt of Wastes	
	Name and stamp:  Signature	Month: 12 Day: 07 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp:  Signature	Month: 12 Day: 07 Year: 2023

Sender copy to be sent to SPCB

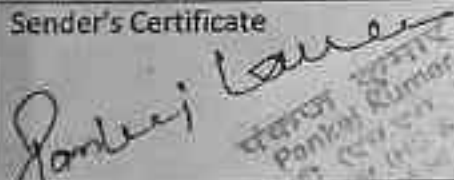
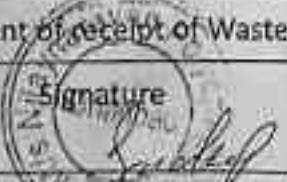

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3743

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (Including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3743		
4	Transporter's name and address : (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58B 3807		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Leandra Dhambad Jhansi		
9	Receiver's authorization No.	JSPCR/HO/RNC/HWM-10052121/ 2024/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	36.04 m ³ or MTNos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	Use PPE's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:  Signature	Month	Day	Year
		12	07	2023
	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:  Signature	Month	Day	Year
		12	07	2023
	Receiver's certification for receipt of Hazardous and other waste			
	Name and stamp:  Signature	Month	Day	Year
		12	07	2023


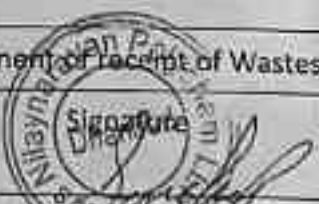
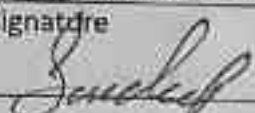
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3744

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3744		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR45C9618		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Leandre Dharbad Jhansi		
9	Receiver's authorization No.	JSPCR/HO/RNC/HWRS-10052121/ 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	31.60 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:  Pankaj Kumar Officer (HS & E) Panipat Refinery (HSE) 132140	Signature	Month 12	Day 08
			Year 2023	
15	Transporter acknowledgement or receipt of Wastes			
	Name and stamp: 	Signature	Month 12	Day 08
			Year 2023	
16	Receiver's Certification for receipt of hazardous and other waste			
	Name and stamp: 	Signature	Month 12	Day 08
			Year 2023	

Sender copy to be sent to SPCB



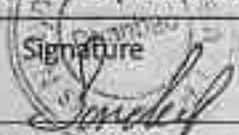
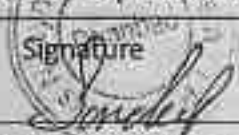


Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3745

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3745		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayam Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR45C 5805		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayam Polychem LLP D-167 Landra Dhandad		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/ 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	33.49 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	Use PPE's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
	 Pankaj Kumar Officer (HS & E) Panipat Refinery (I.O.C.)		12	08
			Year	2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	08
			Year	2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	08
			Year	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3746

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3746		
4	Transporter's name and address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C1456		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dhambad		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052/21/ 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	27.83	/	or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	08
			2023	2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	08
			2023	2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	08
			2023	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3747

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140. HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3747		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem UP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR69E1005		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem UP D-167 Landra Dhambad		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052/21/ 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	26.58	MT	Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labeled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	08
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	08
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	08
				Year
				2023

Sender copy to be sent to SPCB

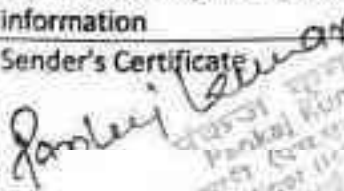


Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3748

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3748		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C7023		
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dhandra		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/ 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	32.51 /m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	Use PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	09
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	09
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	09
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3749

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3749			
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	HR69E9426			
7	Vehicle registration No.				
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Khandra Dhambad.			
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM - 10052/21/ 2021/23			
10	Waste Description	Process Residue			
11	Total quantity No. of Containers	29.53 m ³ or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.			
13	Special handling instructions and additional information	USE PPE'S			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	09	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	09	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	09	2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10

[See rule 19 (1)]

3761

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3761		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR69E1099		
8	Receiver's name & mailing address: (Including Phone No. and e-mail)	m/s Nilay Narayan Polychem LLP D-167 kandra Dhambad.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/ 2021/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	34.83 <input checked="" type="checkbox"/> or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month 12	Day 12
				Year 2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month 12	Day 12
				Year 2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month 12	Day 12
				Year 2023

Sender copy to be sent to SDCR

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3762

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3762		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	PB05AF7878		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem LLP D-167 Kandra Dhandra		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	35.22 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	Use PPE's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: Signature	Month	Day	Year
		12	12	2023
Transporter acknowledgement of receipt of Wastes				
15	Name and stamp: Signature	Month	Day	Year
			12	12
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp: Signature	Month	Day	Year
		12	12	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3763

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3763		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C 6358		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s Nilay Narayan Polychem LLP D-167 Landro Dhambad.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-1005212/ 2021/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	35.97 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	Use PPEs		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: Signature	Month	Day	Year
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp: Signature	Month	Day	Year
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp: Signature	Month	Day	Year

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10
(See rule- 19 (1))

3764

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA
2	Sender's authorization No.	HWM/PIT/2023/43775413
3	Manifest Document No.	3764
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP
5	Type of vehicle	(Truck/Tanker/Special Vehicle)
6	Transporter's registration No.	
7	Vehicle registration No.	HR58C9050
8	Receiver's name & mailing address (Including Phone No. and e-mail)	m/o Nilay Narayan Polychem LLP D-167 Kandra Dhambad.
9	Receiver's authorization No.	JSPCB/HO/RNC/HW-100521/2021/23
10	Waste Description	Process Residue.
11	Total quantity No. of Containers	31.87 MT or MT Nos.
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.
13	Special handling instructions and additional information	USE PPE'S
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorized, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and stamp:	Signature: [Signature] Month: 12 Day: 12 Year: 2023
15	Transporter acknowledgement of receipt of Wastes	
	Name and stamp:	Signature: [Signature] Month: 12 Day: 12 Year: 2023
16	Receiver's certification for receipt of hazardous and other waste	
	Name and stamp:	Signature: [Signature] Month: 12 Day: 12 Year: 2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

3750

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3750		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	HR5BC9050		
7	Vehicle registration No.	Nilay Narayan Polychem LLP		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	D-167 Leandra Phambast.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWM-10052121/2021/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	38.17	or MT Nos.	
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	Use PPE's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	18
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	18
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	18
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3751

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3751			
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.				
7	Vehicle registration No.	HR58 C7023			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP DHBT Kandiya Dhambad.			
9	Receiver's authorization No.	JSPCB/HO/RNC/Hwm-10052121/ 2024/23			
10	Waste Description	Process Residue.			
11	Total quantity No. of Containers 31.12 / ^{m³} or MT Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.			
13	Special handling instructions and additional information	use PPE's			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
		<i>Pankaj Kumar</i>	12	18	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
		<i>Sandeep</i>	12	18	2023
15	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
		<i>Sandeep</i>	12	18	2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10
[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

3752

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCI, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3752		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR53B4506		
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Vardra Pharsawal.		
9	Receiver's authorization No.	JSPCB/HO/RNC/HWRN-1005212 2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	32.52 32.52 / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	18
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	18
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	18
				Year
				2023

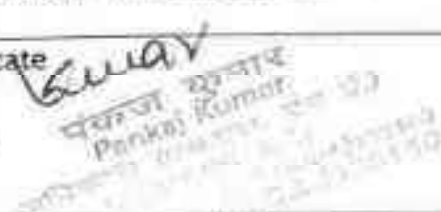
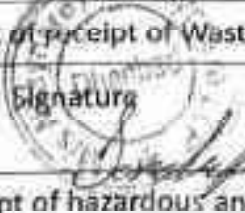
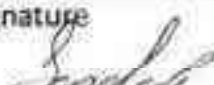
Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3753

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3753		
4	Transporter's name and address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C 6358		
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kamdra Dharbad.		
9	Receiver's authorization No.	JSPCB/HO/RNC/Hwm - 1005212/ /2021/23		
10	Waste Description	oily sludge		
11	Total quantity No. of Containers	30.15 ^{MT} / or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) Residual oily sludge		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	19
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	19
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	19
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3754

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3754		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR69E1382		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP, D-167 Karama Dharwad.		
9	Receiver's authorization No.	JSPCB/ NO/RNC/HWM -10052121/ 2021/23		
10	Waste Description	Oily sludge		
11	Total quantity No. of Containers	28.12 <input checked="" type="checkbox"/> or MT _____ Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) Residual oily sludge		
13	Special handling instructions and additional information	use ppe's		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	20
				Year
				20 23
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	20
				Year
				20 23
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	20
				Year
				20 23

Sender copy to be sent to SPCB




**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10

[See rule 19 (1)]

3755

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3755		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR69E8144		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Kandra Dumbad		
9	Receiver's authorization No.	ISPCB/HO/RNC/HW00-10052121/0021/23		
10	Waste Description	Oily sludge		
11	Total quantity No. of Containers	26.96 or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) Residual Oily sludge		
13	Special handling instructions and additional information	Use PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: 	Signature	Month 12	Day 20
				Year 2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp: 	Signature	Month 12	Day 20
				Year 2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp: 	Signature	Month 12	Day 20
				Year 2023


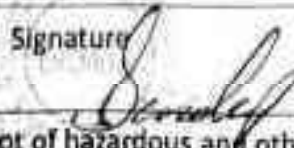

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 (See rule 19 (1))

3756

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3756		
4	Transporter's name and address : (including Phone No. and e-mail)	Nitya Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	PB13BE9453		
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nitya Narayan Polychem LLP D-167 Kanda Dhambad		
9	Receiver's authorization No.	JBPCB/HO/RNC/Hwm-10052121/ 2021/23		
10	Waste Description	Process Residue.		
11	Total quantity No. of Containers	40.70 /m ³ or MTNos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid.		
13	Special handling instructions and additional information	use PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp: Signature	Month	Day	Year
		12	23	2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp: Signature	Month	Day	Year
		12	23	2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp: Signature	Month	Day	Year
		12	23	2023

Sender copy to be sent to SPCB

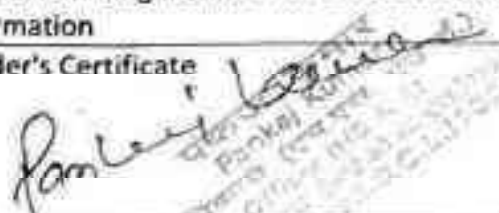
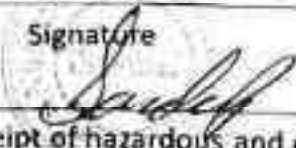

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3757

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3757		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem Ltd		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR69D8813		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	Nilay Narayan Polychem Ltd D-167 Bandra Dhambad		
9	Receiver's authorization No.	JSPCB/HO/RN/HRM-10052121/2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	38.32 /m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	Use PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	23
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	23
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	23
				Year
				2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10

[See rule 19 (1)]

3758

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3758		
4	Transporter's name and address : (including Phone No. and e-mail)	Nilay Narayan Polychem LLP		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.			
7	Vehicle registration No.	HR58C1456		
8	Receiver's name & mailing address (including Phone No. and e-mail)	Nilay Narayan Polychem LLP D-167 Bandra Dhambad		
9	Receiver's authorization No.	JSPCB/HO/RMC/HWOM-10052124/2024 23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	35.60 m ³ or MT Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid) granular solid		
13	Special handling instructions and additional information	USE PPE'S		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	02
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	23
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	23
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3765

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3765		
4	Transporter's name and address : (including Phone No. and e-mail)	M/s. ^{Fixed up by} Nilay Narayan Polychem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR50C 6358		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Nilay Narayan Polychem LLP, D-63, KANWARA, Dhambad.		
9	Receiver's authorization No.	DSPCA/110/RMC/HWM-10052121/2021/23		
10	Waste Description	Oily sludge (Residual)		
11	Total quantity No. of Containers	31.65 m ³ or MT <input checked="" type="checkbox"/> Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	Use PPE's.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	26
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	26
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	26
				Year
				2023

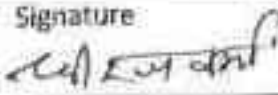
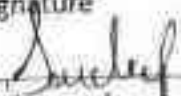

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3766

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3766			
4	Transporter's name and address : (including Phone No. and e-mail)	Conducted by Mr. Milaynaranayan Polychem LL8			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 588 4506			
8	Receiver's name & mailing address: (including Phone No. and e-mail)	M/S. Milaynaranayan Polychem LL8 D-163, KANDRA, Dhanbad.			
9	Receiver's authorization No.	JS PCB/HO/RMC/HWM-10052121/2021/23			
10	Waste Description	Oily sludge (Residual)			
11	Total quantity No. of Containers	28.88 m ³ or MT ✓Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPEs.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	26	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	26	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	26	2023

Sender copy to be sent to SPCB

**Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex**

Form-10

[See rule 19 (1)]

3760

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3760			
4	Transporter's name and address (including Phone No. and e-mail)	Ginsophy M/S - Nilaynagaram Polychem LLP.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 69 E 9426			
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/S - Nilaynagaram Polychem. Co. B, P-107, KANDRA, Phambab.			
9	Receiver's authorization No.	JSPCB/HO/RMC/HWM-10052121/2021/23			
10	Waste Description	Process Residue			
11	Total quantity No. of Containers	28.86 m ³ or MT <input checked="" type="checkbox"/> Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE's.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
15	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
16	Transporter acknowledgement of receipt of Wastes				
17	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
18	Receiver's certification for receipt of hazardous and other waste				
19	Name and stamp:	Signature	Month	Day	Year
			12	29	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3767

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3767			
4	Transporter's name and address : (including Phone No. and e-mail)	Linkup by M/s. Nilay Malayan Polychem LLP.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR69D4441			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Nilay Malayan Polychem LLP, P-163 KANDRA, Dhambad.			
9	Receiver's authorization No.	JSPCB/HO/RMC/HWM-10052021/2021/03			
10	Waste Description	Process Residue			
11	Total quantity No. of Containers	31.42 m ³ or MT ✓ Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE RPE'S.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3768

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3768			
4	Transporter's name and address : (including Phone No. and e-mail)	lined up by M/S. Nityanarayan Polychem Ltd.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 69 E 1099			
8	Receiver's name & mailing address : (Including Phone No. and e-mail)	M/S. Nityanarayan Polychem Ltd. P-103 KANDARA, Dhanbad			
9	Receiver's authorization No.	JS PCB/HO/RMC/HWM-1002121/ 2021/23			
10	Waste Description	- Process Residue.			
11	Total quantity No. of Containers	28.09 m ³ or MT ✓Nos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE's.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	29	2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex
Form-10

[See rule 19 (1)]

3769

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA		
2	Sender's authorization No.	HWM/PIT/2023/43775413		
3	Manifest Document No.	3769		
4	Transporter's name and address ; (including Phone No. and e-mail)	Lined by M/s. Nitay Narayan Petrochem LLP.		
5	Type of vehicle	(Truck/Tanker/Special Vehicle)		
6	Transporter's registration No.	—		
7	Vehicle registration No.	HR 69 D 3813		
8	Receiver's name & mailing address (Including Phone No. and e-mail)	M/s. Nitay Narayan Petrochem LLP, P-16, KANDRA - Dharambad.		
9	Receiver's authorization No.	JS PCB/HO/RNC/10052121/2021/23		
10	Waste Description	Process Residue		
11	Total quantity No. of Containers	33.46 m ³ or MT ✓ Nos.		
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13	Special handling instructions and additional information	Use PPEs.		
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
	Name and stamp:	Signature	Month	Day
			12	29
				Year
				2023
15	Transporter acknowledgement of receipt of Wastes			
	Name and stamp:	Signature	Month	Day
			12	29
				Year
				2023
16	Receiver's certification for receipt of hazardous and other waste			
	Name and stamp:	Signature	Month	Day
			12	29
				Year
				2023

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10

[See rule 19 (1)]

3770

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3770			
4	Transporter's name and address : (including Phone No. and e-mail)	Livesupply MS. Nitya Narayan Polychem Ltd			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.				
7	Vehicle registration No.	PB 13 BBS 608			
8	Receiver's name & mailing address (Including Phone No. and e-mail)	MS. Nitya Narayan Polychem Ltd, P-163, KANARA Phambad			
9	Receiver's authorization No.	JSPCB/HO/RMC/1005212/(2021)23			
10	Waste Description	Process Residue.			
11	Total quantity No. of Containers	36.03m ³ or MTNos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	USE PPE'S.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023

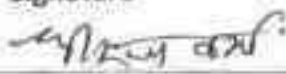
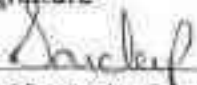

Sender copy to be sent to SPCB

Indian Oil Corporation Limited
Panipat Refinery & Petrochemical Complex

Form-10
 [See rule 19 (1)]

3771

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	IOCL, PANIPAT REFINERY & PX-PTA COMPLEX, BAHOLI, PANIPAT-132140, HARYANA			
2	Sender's authorization No.	HWM/PIT/2023/43775413			
3	Manifest Document No.	3771			
4	Transporter's name and address : (including Phone No. and e-mail)	Gandrupy MS. M. N. Nayyar & Co. Chem LLP.			
5	Type of vehicle	(Truck/Tanker/Special Vehicle)			
6	Transporter's registration No.	—			
7	Vehicle registration No.	HR 5 B D 9974			
8	Receiver's name & mailing address (including Phone No. and e-mail)	M/s. N. N. Nayyar & Co. Chem LLP, P-163, KANDRA, Phambad			
9	Receiver's authorization No.	J&S PCB/HO/RNC/100521 21/2021/23			
10	Waste Description	Proced residue.			
11	Total quantity No. of Containers	33.60m ³ or MTNos.			
12	Physical form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13	Special handling instructions and additional information	Use PPE.			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.			
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023
15	Transporter acknowledgement of receipt of Wastes				
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023
16	Receiver's certification for receipt of hazardous and other waste				
	Name and stamp:	Signature	Month	Day	Year
			12	30	2023

Sender copy to be sent to SPCB