

F. No.IA- J-11011/175/2016-IA-II(I)
Government of India
Ministry of Environment, Forest, Climate Change
Impact Assessment Division

Speed Post/Online

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Dated: 5th January, 2021

To,

M/s Haldia Refinery of Indian Oil Corporation Limited,
East Medinipur,
West Bengal

Email: chattopadhyays@indianoil.in

Sub: Installation of 2nd Catalytic Iso-Dewaxing unit of capacity 270 TMTA (Thousand Metric Ton per Annum), by M/s Haldia Refinery of Indian Oil Corporation Limited, located at East Medinipur, West Bengal - Environmental Clearance regarding.

Sir,

This has reference to your online proposal No.IA/WB/IND3/182392/2017 dated 07th November, 2020 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Installation of 2nd Catalytic Iso-Dewaxing unit of capacity 270 TMTA (Thousand Metric Ton per Annum), by M/s Haldia Refinery of Indian Oil Corporation Limited, located at East Medinipur, West Bengal.

3. The project/activity is covered under category "A" of items 4(a) "Petroleum Refining Industry" of the Schedule the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

4. The details of products and capacity are as under:-

Augmentation of API Group-II & III Lube Base Oil (LBO) production with the capacity of 270 TMTA (Thousand Metric Ton per Annum). Proposed CDWU-II facilities comprise the following-

S. No.	Facility	Capacity
1	Catalytic Dewaxing Unit – II	270 TMTA
2	New Offsite, Auxiliary Facilities & Unit interconnecting piping & System	-

S. No.	Product streams:-	By products:	Additional by-products	Product specifications
1.	Lube Base Oils (API Grade II LOBS, 70N) – 70N Cases	Stabilized Naphtha (C5-149° C)	Product Stripper Off Gas	Transformer Oil
2.	Lube Base Oils (API	Light Distillate,	Sour Water	Light White Oil

	Grade II LOBS, 70N) – 4 cSt Cases	HSD (149-371° C) – DFC1&2-70N	Degasser Off Gas	
3.	Lube Base Oils (API Grade II LOBS, 70N) – 6 cSt Cases	Light Distillate, HSD (149-371° C) – DFC1-4CST	Sour Water	Medium White Oil
4.	Lube Base Oils (API Grade II LOBS, 70N) – 8 cSt Cases	Light Distillate, HSD (149-366° C) – DFC2-4CST	Vacuum System Off Gas	-
5.	Lube Base Oils (API Grade III LOBS, 4 cSt / Light LOBS)	Light Distillate, HSD (149-371° C) – DFC1&2-6CST	Vacuum System Slop Oil	-
6.	Lube Base Oils (API Grade III LOBS, 6 cSt / MiddleLOBS)	Light Distillate, HSD (149-335° C) – DFC1-8CST	-	-
7.	Lube Base Oils (API Grade III LOBS, 8 cSt / Heavy LOBS)	Light Distillate, HSD (149-371° C) – DFC2-8CST	-	-

5. The Standard ToR has been issued by Ministry vide letter dated 22nd January, 2020. The Public hearing of proposed proposal was conducted on 12.10.2020 by West Bengal Pollution Control Board, which was presided over by Additional District Magistrate. Main issue raised in the Public Hearing was, proposal for reduction of SO₂ emission, treatment facilities for liquid effluent generated and any possibility of effluent leakage from the refinery etc.

6. Project Proponent has reported that the Ministry has earlier issued ECs vide letter no. J-11011 / 34 / 88-IA dated 16.03.1986 J-11011/39/96- IA II (I) dated 18.12.1996, J-11011/99/96-IA II(I) dated 01.10.1997, J-11011/28/2000-IA.II dated 21.08.2000, J-11011/5/2002-IA II (I) dated 01.05.2002, J-13011/ 14/2006-IA.II(T) dated 05.01.2007, J-11011/422/2006-1A II(I) dated 06.03.2007, J-11011/299/2013-IA II (I) dated 04.03.2016, J-11011/175/2016-IA-II(I) dated 28.11.2017 to M/s Indian Oil Corporation Limited, located at Haldia Refinery, Haldia (West Bengal).

7. The Certified compliance report submitted by the Ministry's Eastern Regional office at Bhubaneswar vide letter dated 15.09.2020. The Committee deliberated the compliance status of earlier EC submitted by PP and found in order. It was informed that there is no litigation pending against the project.

8. Project Proponent reported that the existing land area is 5300 m². Plantation will be done as per Central Pollution Control Board (CPCB) Norms & in consultation with the DFO/DM. Tree plantation has been organized in the past in consultation with Haldia Development Authority(HDA) and Haldia Municipality in and around Haldia region. PP reported that in all previous year's tree plantation in nearby region of the Haldia Refinery has been done and so far Haldia Refinery has planted 68000 trees around the Haldia region of which 6000 trees were planted in year 2019. The EAC advised the project proponent that the green belt and plantation shall be in project mode and shall be completed within 6 months and a compliance report needs to be submitted to RO MoEFCC.

9. The proposed estimated project cost will be Rs.967.00 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.26 Lakhs and the Recurring cost (operation and maintenance) is approx. Rs.3 Lakhs per annum. Total Employment will be for 22 numbers for the proposed CDWU-II Project which includes Production, Maintenance and Technical services persons. PP earmarked Rs. 614 lakhs towards Corporate Environment Responsibility activities. There are no National Park, Sanctuary, Elephant / Tiger Reserve,

migratory routes and wildlife corridor within 10 km radius around the Haldia Refinery. The area does not contain any type of forest.

10. Ambient air quality monitoring was carried out at 8 locations during 1st March to 31st May 2020 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (45.60 – 122.0 µg/ m³), PM_{2.5} (27.36 – 73.20 µg/ m³), SO₂ (4.0.0– 26.0 µg/ m³), NO_x (14.0– 36.33 µg/ m³), CO (0.34– 1.86 mg/ m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM₁₀, SO₂& NO_x would be 1.28 µg/m³, 0.017µg/m³& 4.27µg/m³ respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM₁₀ & PM_{2.5}.

11. M/s IOCL will develop various management activities for the Environmental Management Program which will meet all statutory requirements and help to improve quality of environment. In order to improve the aesthetic look of the area and enhance the land use as well as to compensate for any loss in ecology during construction, adequate plantation program around Haldia Refinery have been planned and will be adopted. A detailed monitoring plan for different environmental parameters will be carried out as per direction of State Pollution Control Board. A dedicated Health Safety & Environment department exists in Haldia Refinery to look after implementation of environment management plan. PP proposed that additional 408 KLD raw water shall be required which will be supplied from Haldia Development Authority. Power requirement of 1.3 MW, which will be met from State Grid.


12. The proposal for environmental clearance was considered by the EAC (Industry-3) in its meetings held during **8-9 December, 2020**. The project proponent and their consultant M/s. Mantec Consultants Pvt. Ltd., made a detailed presentation through Video Conferencing (VC) and have presented the EIA/EMP report. The Committee found the EIA/EMP report to be satisfactory, and recommended the project for grant of environmental clearance.

13. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is satisfactory for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards except PM₁₀ & PM_{2.5}. The committee deliberated the action plan for the reduction of particulate matter in the area. The committee recommended to prepare action plan for plantation and budget allocation for issue raised during the PH and green belt development. The Committee has found the information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and

 EC for M/s Haldia Refinery of Indian Oil Corporation Limited

accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of environmental clearance.

14. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain 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, from the State Pollution Control Board, prior to construction & operation of the project.

15. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for **Installation of 2nd Catalytic Iso-Dewaxing unit of capacity 270 TMTPA (Thousand Metric Ton per Annum) by M/s Haldia Refinery of Indian Oil Corporation Limited, located at East Medinipur, West Bengal**, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. Specific Condition

- (i). 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 earlier EIA/EMP report and updated in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (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. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (iii). 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.
- (iv). 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.
- (v). 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.
- (vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (vii). Process safety and risk assessment studies shall be carried out using advanced models in repeated intervals, and the mitigating measures shall be undertaken/implemented accordingly.
- (viii). The storage of toxic/hazardous raw material/products shall follow all the safety norms and best practices to avoid any leakage/explosion/emissions. 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.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). Total additional fresh water requirement shall not exceed 408 KLD proposed to be met from Haldia Development Authority. Necessary permission in this regard shall be obtained from the concerned regulatory authorities, and renewed from time to time.
- (xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). 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 clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. The greenbelt shall be developed/planted within in 6 months and a compliance report needs to be submitted to RO MoEFCC.
- (xiv). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.
- (xv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

B. General Condition:

- (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.

- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (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).
- (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.
- (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.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received 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 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 of the company.
- (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.
- (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.
- (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.

(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.

16. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

17. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

18. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

19. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

20. This issues with the approval of the competent authority.

05/01/2021

(Dr. R. B. Lal)

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Min. of Environment, Forest and Climate Change

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2. Principal Secretary, Environment, Prani Sampad Bhavan, 5th Floor, LB-2, Sector-III, Salt Lake, Kolkata-700098.
3. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar – 751023
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32
5. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhawan, 10A, LA Block, Sector III, Bidhannagar, Kolkata, West Bengal 700106
6. The Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Man Singh Road, New Delhi-110011
7. The District Collector, District East Medinipur, West Bengal
8. Guard File/Monitoring File/Website/Record File/Parivesh portal

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