



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), West Bengal)

To,

The General Manager
HSE MBA BASIN

4th Floor, HSE Section, ONGC, Technopolis Building Block BP-4, Sector-V
Salt Lake , Kolkata-700091 -700091

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/WB/IND2/152174/2020 dated 17 Jul 2020. The particulars of the environmental clearance granted to the project are as below.

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|--|---|
| 1. EC Identification No. | EC22B002WB170058 |
| 2. File No. | EN/T-II-1/013/2020 |
| 3. Project Type | New |
| 4. Category | B2 |
| 5. Project/Activity including Schedule No. | 1(b) Offshore and onshore oil and gas exploration, development & production |
| 6. Name of Project | Exploratory drilling (10 wells) in NELP VII block WB-ONN-2005/4 situated in North 24 Parganas and Nadia districts, West Bengal. |
| 7. Name of Company/Organization | HSE MBA BASIN |
| 8. Location of Project | West Bengal |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 26/09/2022

(e-signed)
Kaliyamurthi Balamurugan
Member Secretary
SEIAA - (West Bengal)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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Proposed conditions for environmental clearance for the proposed Exploratory Drilling (10 wells) in NELP VII Block WB-ONN-2005/4, situated in North 24 Parganas and Nadia Districts, West Bengal by M/s. Oil & Natural Gas Corporation Limited, HSE MBA Basin.

Background of the project

The proponent made online application vide proposal no. SIA/WB/IND2/152174/2020 dated 17.07.2020 seeking environment clearance under the provisions of the EIA Notification, 2006 for the proposed Exploratory Drilling (10 wells) in NELP VII Block WB-ONN-2005/4, situated in North 24 Parganas and Nadia Districts, West Bengal by M/s. Oil & Natural Gas Corporation Limited, HSE MBA Basin.

The proposal has been examined and processed in accordance with the EIA Notification, 2006. The proposal is for for exploratory drilling of 10 wells in NELP VII Block WB-ONN-2005/4 situated in North 24 Parganas and Nadia districts of West Bengal.

Salient features of the proposed project as per PARIVESH Portal are as follows –

Proposed Project	Proposed Onshore Exploratory drilling of 10 wells in NELP VII block WB-ONN-2005/4 situated in North 24 Parganas and Nadia districts, West Bengal.																												
Name of blocks	WB-ONN-2005/4																												
Area of block	3940 Sq.Km																												
Average elevation	30 ft																												
Project Location	Block WB-ONN-2005/4 in 24 Parganas (North), Hoogly, Nadia and Burdwan, West Bengal. Coordinates of the Block																												
		<table><tr><th>Point</th><th>LATITUDE</th><th>LONGITUDE</th></tr><tr><td>A</td><td>23° 20' 0"</td><td>88° 10' 0"</td></tr><tr><td>B</td><td>23° 20' 0"</td><td>88° 32' 0"</td></tr><tr><td>C</td><td>23° 20' 0"</td><td>88° 37' 0"</td></tr><tr><td>D</td><td>23° 10' 0"</td><td>88° 37' 0"</td></tr><tr><td>E</td><td>23° 10' 0"</td><td>88° 45' 0"</td></tr><tr><td>F</td><td>22° 42' 0"</td><td>88° 45' 0"</td></tr><tr><td>G</td><td>22° 42' 0"</td><td>88° 10' 0"</td></tr></table>	Point	LATITUDE	LONGITUDE	A	23° 20' 0"	88° 10' 0"	B	23° 20' 0"	88° 32' 0"	C	23° 20' 0"	88° 37' 0"	D	23° 10' 0"	88° 37' 0"	E	23° 10' 0"	88° 45' 0"	F	22° 42' 0"	88° 45' 0"	G	22° 42' 0"	88° 10' 0"			
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Proposed well locations	Block	Well	District	Block	Village																								
	WB-ONN-2005/4	EC1 (GARIBPUR-1)	24 Parganas (N)	Bongaon	Garibpur																								
		EC2 (B-B-AS-B)	24 Parganas (N)	Habra - II	Paschim Bamandanga																								
		EC3 (K-WB-J)	24 Parganas (N)	Habra - II	Malikbaria																								
		EC4 (Barrackpore-A)	24 Parganas (N)	Amdanga	Raypur																								
		EC5	24 Parganas (N)	Bongaon	Satashi																								
		EC6	Nadia	Haringhata	Uttar Datta Para																								
		EC7	24 Parganas (N)	Habra - II	Pabdara																								
		EC8	24 Parganas (N)	Habra - I	Payragachhi																								
		EC9	24 Parganas (N)	Barasat - I	Sarbaria																								
		EC10	24 Parganas (N)	Deganga	Bara Bisweswarpur																								
Product & Quantity	Drilling of 10 nos. of exploratory wells within NELP VII block WB-ONN-2005/4 to a maximum depth of 2000-6000 m in Phase-1 & Phase-2																												
Duration of Drilling	90-120 days																												

Proposed conditions for environmental clearance for the proposed Exploratory Drilling (10 wells) in NELP VII Block WB-ONN-2005/4, situated in North 24 Parganas and Nadia Districts, West Bengal by M/s. Oil & Natural Gas Corporation Limited, HSE MBA Basin.

Land Area	For well site during drilling will be 150m x 150m i.e. 5.5 acres OR 2.25 HA, including site facilities and for camp site				
Project Cost	INR 300 Crore for 10 nos. of exploratory wells				
Pollution Control Cost	Capital Cost: 76 Lacs for each well; Recurring Cost: 15 Lacs/Well				
Water requirement and source	<p>Total Water Requirement for each well: 22 KLD (Domestic: 3 KLD; Drilling water consumption for mud preparation: 12 KLD; Jet wash – washing of drill cuttings at shale shaker: 1.5 KLD/well; Preparation of cementing materials: 4 KLD/well; General housekeeping/ washing: 1.5 KLD/well)</p> <p>Surface water will be utilized and will be transported by contractual water tankers on a weekly basis.</p>				
Waste Water generation		Type of wastewater		Amount (KLD)	
		Drilling and rig wash Wastewater		6	
		Domestic Wastewater (Sewage)		2.5	
Power Requirement & source	Power requirement per rig will be about 2.50 - 3.80 MW. Power requirements during site preparation and drilling phase will be met by 4 No of DG Sets of 1430 KVA each. DG Sets				
	Location	DG Capacity	Fuel Requirement	Stack Height (m)	Stack dia (m)
	Drilling Site	4 X 1430 KVA (3 working and 1 standby)	HSD- 6 KLD	12	0.21
Manpower requirement	Total Manpower: 12-15 during (Construction Phase) and during Operational Phase around 30 ONGC employees & 30 contingent workers from local area.				
Hazardous Waste generation		Hazardous waste		Quantity	
		Oily waste used oil & spent Oil		1 m3 per well	
		Wastes/residues containing oil		5-10 Kg/Well	
		Discarded containers/barrels/ liners contaminated with hazardous waste		50 Nos./Year	
Solid Waste generation		Non-Hazardous waste		Quantity	
		Kitchen Waste		10-20 kg per day	
		Recyclable waste like papers, plastics,		Negligible	
		Packaging wastes		2.3 Ton/well	
		Drill cutting generated from Water based Mud and not contaminated with oil.		150-600 Ton/well	
		Waste Drilling Mud		450-900 Ton/well	

Area for Greenbelt	The periphery around the drill site of approximate dimensions 150 m x 150 m is necessarily planted with local saplings (approximately 120 saplings) and thereafter maintained till the rig moves to the next location after 90 to 150 days of operations. The plantation remains and if no oil or gas is discovered the entire land is restored back to its near original agricultural condition before formal derequisition of the leased land back to the district authorities.
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State Level Environment Impact Assessment Authority (SEIAA), West Bengal examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment & Forests, GOI and the subsequent amendments, on the basis of above mentioned features along with other details submitted to SEIAA subject to strict compliance of the terms and conditions mentioned below.

A. Specific conditions:-

- i) No drilling shall be carried out in Protected Areas/forest area.
- ii) Approach road shall be made pucca to minimize generation of suspended dust.
- iii) Total water requirement shall not exceed 22 KLD/well proposed to be met through tankers. Mobile ETP shall be installed coupled with RO to reuse the treated water in drilling system. Size of the waste shall not exceed from the hole volume of the well + volume of drill cutting expected to be generated and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible, pit less drilling be practiced instead of above.
- iv) No lead acid batteries shall be utilized in the project/site.

B. General Conditions

I. Statutory compliance

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, if drilling is carried in Forest areas.
- (ii) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the State pollution Control Board.
- (iii) 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.
- (iv) The project proponent shall obtain and adhere to statutory clearance under the Coastal Regulation Zone Notification, 2011, if applicable.

II. Air quality monitoring and preservation

- i) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
- ii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations each

is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

- iii) Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM10, PM2.5, SO₂, NO_x, CO, CH₄, HC, Nonmethane HC etc.
- iv) During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored.
- v) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- vi) Approach road shall be made pucca to minimize generation of suspended dust.

III. Water quality monitoring and preservation

- i) As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Domestic sewage shall be disposed off through septic tank/soak pit.
- ii) The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- iii) The project proponent shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- iv) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The project proponent shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

IV. Noise monitoring and prevention

- i) Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii) The overall noise levels in and around the drilling location areas shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i) The energy sources for lighting purposes shall preferably be LED based.

VI. Waste management

- i) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- ii) Oil content in the drill cuttings shall be monitored by Authorized agency and report shall be sent to the State Environment Impact Assessment Authority.

VII. Safety and Human health issues

- i) Emergency preparedness plan based on the Hazard identification and Risk Assessment

(HIRA) and Disaster Management Plan shall be implemented.

- ii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- iii) The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
- iv) On completion of drilling, the project proponent should plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- v) The project proponent shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- vi) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- 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.
- viii) The project proponent shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self-containing breathing apparatus
- ix) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- x) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi) The project proponent shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.

VIII. Environment Management Plan (EMP)

- i) The project proponent should submit the proposed EMP on a six monthly basis. The Office Memorandum issued by the MoEF & CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 should be strictly followed.
- ii) Need based activities for local people is part of the EMP.
- iii) The company shall have a well laid down environmental policy duly approve by the Board of

Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board as a part of six-monthly report.

- iv) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of Senior Executive, who will directly report to the head of the organization.
- v) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose.
- vi) Year wise progress of implementation of action plan shall be reported to the Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board along with the Six-Monthly Compliance Report.
- vii) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

IX. Additional conditions

- (1) Short term need-based activities to be identified and implemented. Name of the beneficiary should be displayed at site.

X. Miscellaneous

- i) The environmental clearance accorded shall be valid for a period of 10 years for the proposed project or till the exploration period whichever is earlier.
- ii) This is EC issued for exploratory wells only and those wells shall not be converted to production wells without prior permission from State Environment Impact Assessment Authority.
- iii) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- iv) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- v) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions to Ministry of Environment, Forests & Climate Change / State Environment Impact Assessment Authority / State Pollution Control Board.
- vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

- viii) The project proponent shall inform the State Environment Impact Assessment Authority, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix) Restoration of the project site shall be carried out satisfactorily and report shall be sent to the State Environment Impact Assessment Authority.
- x) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xi) The project proponent shall abide by all the commitments and recommendations made in the EMP report and also that during their presentation to the State Expert Appraisal Committee.
- xii) No further expansion or modifications in the project shall be carried out without prior approval of the State Environment Impact Assessment Authority.
- xiii) The State Environment Impact Assessment Authority / State Pollution Control Board shall monitor compliance of the stipulated conditions.
- xiv) The project authorities should extend full cooperation to the officer(s) of the State Environment Impact Assessment Authority / State Pollution Control Board by furnishing the requisite data / information/monitoring reports.
- xv) The State Environment Impact Assessment Authority 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 State Environment Impact Assessment Authority may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
- xvi) 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.
- xvii) 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.
- xviii) 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.
- xix) The contact details of the proponent and the name of the consultant are given below –

Name of the Contact person with Designation	Mr. Ranadeep Ghosh, General Manager
Address	4 th Floor, HSE Section, ONGC, Technopolis Building, Block BP-4, Sector – V, Salt Lake, Kolkata – 700 091.
Email	hhse_kolkata@ongc.co.in
Telephone Number Fax No.	033-23670154 033-23671751
Name of the Environmental Consultant	M/s. ABC Techno Labs Pvt. Ltd.