

संदर्भ सं./Ref. No.: S&E/E/43 (14)/200

दिनांक/Date: 23.02.2024

From	:	Chief General Manager (HSE) I/C
To	:	The Director - IA, II(I) & The Member Secretary, EAC Industry - II, Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003.
Subject	:	Reply to ADS for the application seeking Environmental Clearance (EC) for Onshore Oil & Gas Development drilling and production in Dumduma-Pengeri Area in Tinsukia District under PMLs namely Mechaki PML, Borhajan PML, Dumduma PML and Digboi PML.
Ref	:	Proposal No. IA/AS/IND2/220363/2007 & File No. J-11011/1251/2007 - IA II (I).

Sir,

Oil India Ltd. (OIL) applied for Environmental Clearance for the proposal "Onshore Oil & Gas Development drilling and production in Dumduma-Pengeri Area in Tinsukia District under PMLs namely Mechaki PML, Borhajan PML, Dumduma PML and Digboi PML" vide proposal no. IA/AS/IND2/220363/2007.

An ADS was raised on 04.12.2023 to submit the compliance to the observation of the Ministry committee report dated 04.01.2023 related to the ongoing court case in compliance to Hon'ble NGT Judgement dated 08.12.2017 in Original Application No. 19 of 2014 filed in Dr. Kashmiri Kakati vs UoI & Ors. The point-wise reply to the committee's findings is enclosed as **Annexure - I**.

Thanking you.

(Rajendra Singh Garbyal)
Chief General Manager (HSE) I/C
Nodal Officer (EC, FC, NBWL)
For Resident Chief Executive

Encl: As above.

Annexure - I

The findings of the Committee with respect to OIL and the responses are as follows:

1. Finding No. 1: **Oil is leaking from underground pipelines in the Reserve Forest**

- i. The Committee has alleged that pipelines have been found to be leaking however, no specifications have been provided by the Ld. Committee with respect to the said area /block. It may be noted that the Committee visited only 3 sites, namely Pit No. 512, 513 and 139 in the concerned Digboi region wherein there are no underground crude oil pipelines.
- ii. OIL periodically monitors and supervises its pipelines and all its pipelines are in good condition. Additionally, these pipelines are also audited by Oil Industry Safety Directorate (OISD) periodically. In view of the above, it is reiterated that there is no leakage or seepage of crude oil through any underground pipelines in the Reserve Forest area.

2. Finding No. 2: **At several places, oily sludge pits of abandoned wells have been found and natural drains pass through these pits.**

- i. It is pertinent to mention that the Digboi Oilfield has a rich historical background which plays a significant role in the present context. The concerned Digboi Oilfields have been in existence for more than 125 years. The crude oil was discovered at Digboi in 1889 by the erstwhile Assam Railway & Trading Co (AR&T), which subsequently developed the Digboi Oil Field, located within the present-day Dihing Patkai Reserve Forest area.
- ii. OIL came into existence, much later in the year 1959 with oil resources of Nahorkatiya, Hoogrijan & Moran field with 48 wells as a Joint Venture Company of Burmah Oil Company and Government of India. OIL was subsequently nationalized in the year 1981 as a result of nationalisation, OIL acquired the assets of Digboi oilfield which were under control of Assam Oil Company till then.
- iii. OIL along with the Digboi Oilfield also inherited a few pits containing oily debris located within the Reserved Forest. Since then, OIL has undertaken proactive measures for bioremediation of the oily debris accumulated due to natural phenomenon of oily seepage.

- iv. It is humbly submitted and reiterated that the historical and geographical background of the Digboi Oilfield has also been well accepted by the NGT in the Impugned Order dated 08.12.2017 since the Impugned Order *inter alia* specifically records that the *Committee noticed natural seepage in drain no. 1 of Digboi Oilfield* and has not been challenged by any party till date.
 - v. Though, seepage of oil is accepted as a natural phenomenon by the Hon'ble NGT, OIL has on its own accord undertaken bio-remediation activities by using Oil zapper technology in the Digboi Oilfield region and has been successful in reducing the Total Petroleum Hydrocarbons (TPH) in the area to negligent levels. Oil zapper technology utilizes the bioremediation potential of specific microbes that degrades the toxic hydrocarbon compounds leaving behind non-hazardous end products or metabolites and hence no harmful effects. Not only this is environment-friendly technique, but also is highly cost effective when compared to storage of oily waste/oily sludge in sludge pits.
3. Finding No. 3: **Oil spill have been found in several oil producing wells and Crude Gathering Stations. No fencing had been provided at these well sites.**
- i. It is most humbly submitted that the findings of the Committee are unfortunately not supported by any pictures or on ground task reports. However, it merits the attention of your office that in case an oil spill occurs, the same is rectified immediately and the site is cleaned and restored, as per the internal SOPs of OIL.
 - ii. It is further humbly submitted that OIL had also iron fenced well sites, howsoever owing to number of thefts of iron fencing, at time few wells may be unfenced. OIL, time and again addresses these concerns, even though the issue of theft is a recurring one. Since, the wells are spread over a large area most of them are abandoned wells, physical monitoring of these wells in thick and dense forest becomes practically impossible.
4. Finding No. 4: **More than 800 wells have been drilled since the operation of Burma Oil Company Ltd. Oil India Ltd does not even have the inventories of these abandoned on wells, let alone treatment of these pits.**
- i. It is humbly submitted that the oilfields have been in operation since 1889 and OIL inherited the Oilfield in 1981 only. Since then, OIL has been maintaining the wells records and the same have been subjected to various audits by independent/statutory agencies. There are a total of about 982 wells out of

which about 651 are shut-in, about 293 are abandoned and 38 are producing wells.

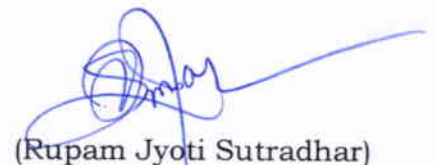
- ii. It is further most humbly submitted that OIL has been carrying out the task of Bioremediation of these oily sludges much prior to the Judgment passed by the Hon'ble NGT.
- iii. It is humbly submitted that as and when oily sludge/seepage is found due to the natural phenomenon, OIL undertakes bio- remediation of the area time to time. Despite the bio-remediation work being carried out in the area, the oil seepage has been observed to be a natural seepage and is recurring in nature.
- iv. It is stated that the Office of Divisional Forest Officer, Digboi Division by Letter no. B/NGT/2022/2743-45 dated 16.11.2022 had requested OIL to provide details, including location, number of pits, geo-coordinates, area and map of the open sludge pits, oil pits and contaminated water bodies in and around the Dihing Patkai Elephant Reserve. OIL accordingly in bona fide *vide* reply dated 28.11.2022 had shared the geo-coordinates of the Natural and artificial pits in the Digboi Oil Field along with the Map showing the location of the pits.

5. **Finding No. 5: In the three oil sludge remediation sites visited, the remediation has not resulted in complete conversion of oily sludge into biodegradable matter. They do not even maintain the inventories of abandoned oil wells.**

- i. It is most humbly stated that as per the findings of the Committee, despite the bio-remediation work being carried out in the area, oil seepage has been observed, which appears to be a natural seepage and not owing to any action or inaction of OIL. OIL has been taking remedial measures since July 2010 and the entire oil debris has already been treated through Bio remedial measures. since it is a natural phenomenon, the recurrence of the oily sludges has been observed in the Region.
- ii. It is submitted that given the said circumstances, OIL is again undertaking bio-remediation work in the area and shall continue to address the issue, as and when observed.

6. **Finding No. 6: Oil India limited has been unable to stop the release of untreated oil effluent in open sludge pits and seepage areas around oil rigs in the Digboi Oil field.**

- i. It is submitted that the judgment passed by the Hon'ble NGT observes that no untreated oil effluent in open sludge pits is being released by OIL and that occurrence of oily sludges as witnessed owing to natural seepage and not due to any action/ inaction of OIL as against the finding of the Committee.
 - ii. It is most humbly stated that the reports of the pits (visited by the Committee) for the test conducted to examine the soil quality by taking a sample of Oily sludge in proximity of wells as prevalent before and after application of Oil Zapper shows remarkable deduction in presence of Total Petroleum Hydrocarbons (HE-TPH). It is most humbly stated that evidently the process of Bio-remediation and application of Oil Zapper technology has aided drastic reduction in the amount of Hydrocarbons to negligent levels in the areas adjoining the oil wells.
 - iii. However, it is most humbly stated that the fresh seepage as observed is possibly due to a natural phenomenon and appropriate actions have been taken for bioremediation by OIL through TERI. The experts from TERI visited the concerned site for analysis of the present circumstances and the proposal on bioremediation is being submitted by them.
2. We trust the above response to the findings of the committee provides sufficient clarification as desired.



Deputy General Manager (HSE)