

MINUTES OF 20th RECONSTITUTED EXPERT APPRAISAL COMMITTEE
(INDUSTRY) HELD DURING 23RD JUNE 2014 TO 24TH JUNE 2014

VENUE: Scope Complex, Core 6, 5th Floor, IOCL Conference Room, Ministry of Petroleum and Natural Gas, Lodhi Road, New Delhi 110 003

20.1 Opening Remarks of the Vice -Chairman

At the outset, Vice -Chairman welcomed the members of the Expert Appraisal Committee (Industry). Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

20.2 Confirmation of the Minutes of the 19th Reconstituted Expert Appraisal Committee (Industry) held during 28-30TH May 2014

TUESDAY, 24th JUNE 2014

20.10.18 Exploratory Drilling & Testing of Hydrocarbons at 7 locations of M/s Oil India Ltd. in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam. (TOR)

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Oil India Ltd. has proposed for Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam. During presentation, PP informed that they have revised their proposal and proposed to drill 22 nos. of onshore wells. Exploration Block AA-ONN-2009/4 area is falling in the Jorhat District of Assam and covering an area of 84 sq. km and awarded to a joint consortium of Oil India Ltd. (OIL) and Oil and Natural Gas Corporation Ltd. during the NELP VIII round of bidding and the PSC for the block was signed Govt. of India on 30.06.2010. Oil India Ltd. OIL is the operator in this block. Subsequently, PEL for the area (84 sq. km) was granted w.e.f. 09.12.2011. PP confirmed that no forest land is involved. Well will be drilled upto 4000 m. Cost of project is Rs. 550 Crore. Borajan segment of Bherjan-Borajan-Padumoni WLS falls within the field. Dihing-Patkai WLS (1.7 Km from South-Eastern Field boundary). 4 wells located within 10 km radius of Dihing-Patkai WLS. 13

Wells located within 10 km radius of Borajan segment of Bherjan-Borajan-Padumoni WLS. Application for SC-NBWL approval has been submitted vide letter dated 29.05.2013. Only one of the 22 proposed wells is located on the edge of forest area. Gibbon WL Sanctuary is located within 10km of project site. Land requirement will be 2.2 ha per well. Power requirement will be met from DG set (125 kVA + 1000 kVA + 200 kVA). Water requirement from ground water source will be 10 KL during construction and 40 KLD/well during operation.

The Committee after deliberations recommended TOR as given in **Annexure-4** in addition to the following TOR:

- (i) NBWL clearance shall be obtained for project within 10km from Gibbon WL Sanctuary.

J-11011/163/2014-IA II (I)
Government of India
Ministry of Environment, Forests & Climate Change
(IA Division)

Indira Paryavaran Bhavan
Aliganj, Jor Bagh Road
New Delhi-110003

E-mail : lk.bokolia@nic.in
Telefax : 011: 2463 5398
Dated: 9th October, 2014

To,

Shri S.K.Jena General Manager(G&R)
M/s Oil India Limited
Dulijan Assam - 786602

Email.: skjena@oilindia. in Fax.: +91-0374-2801678

Subject: Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd. regarding TOR

Ref. No.: Your Letter no. OIL/NELP/AA-ONN-2009/4/EC dated 05.04.2014

Sir,

Kindly refer your letter no. OIL/NELP/AA-ONN-2009/4/EC dated 05.04.2014 alongwith project documents including Form-I, Pre-feasibility Report and draft 'Terms of Reference' as per the EIA Notification, 2006. It is noted that proposal is for Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd

2.0 Draft Terms of Reference (TOR) have been discussed and finalized during **the 20th Reconstituted Expert Appraisal Committee (Industry) held during 23rd - 24th June, 2014** for preparation of EIA/EMP report. Following are the 'TORs':

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.

5. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
6. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
7. Details of project cost.
8. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
9. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
10. Topography of the project site.
11. Action plan for ambient air quality parameters as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x and Benzene, etc as per GSR 826(E) dated 16th November, 2009.
12. Details of Ambient Air Quality monitoring at 8 locations for PM₁₀, SO₂, NO_x, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
16. Measurement of Noise levels within 1 km radius of the proposed wells.
17. Vegetation and land use; flora/fauna in the study area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation.
19. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
21. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
22. Treatment and disposal of waste water.
23. Treatment and disposal of solid waste generation.
24. Disposal of spent oil and lube.
25. Storage of chemicals and diesel at site.
26. Commitment for the use of WBM only
27. Mud make up and mud and cutting disposal – all options considered shall be listed with selective option.
28. Hazardous material usage, storage accounting and disposal.
29. Disposal of packaging waste from site.
30. Oil spill emergency plans in respect of recovery/ reclamation.
31. H₂S emissions control.
32. Produced oil handling and storage.

33. Details of scheme for oil collection system along with process flow diagram and its capacity.
34. Details of control of air, water and noise pollution in oil collection system.
35. Disposal of produced/formation water.
36. Whether any burn pits being utilised for well test operations.
37. Restoration and decommissioning plans which shall include mud pits and wastage restoration also and documentation and monitoring of site recovery.
38. Measures to protect ground water and shallow aquifers from contamination.
39. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
40. Environmental management plan.
41. Documentary proof of membership of common disposal facilities, if any.
42. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This shall also include monitoring programme for the environmental.
43. Total capital and recurring cost for environmental control measures.
44. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
45. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
46. A tabular chart with index for point-wise compliance of above TORs.
47. In case of expansion/modernization proposals:
 - i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
48. CRZ clearance/ recommendation from State Coastal Zone Management Authority, if applicable.
49. Approval of the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco

sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland shall be submitted.

50. The TORs prescribed shall be valid for a period of two years from the date of issue.

The following general points shall be noted:

- (i) All documents shall be properly indexed, page numbered.
- (ii) Period/date of data collection shall be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.
- (vii) The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

Additional TOR

- (i) **NBWL clearance shall be obtained for project within 10 km from Gibbon WL Sanctuary**

3.0 These 'TORs' should be considered for the preparation of EIA / EMP report for **Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd.** in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The EIA/EMP as per TORs should be submitted to the **Chairman, Assam Pollution Control Board, (APCB)** for public consultation. The **SPCB** shall conduct the public hearing/public consultation as per the provisions of EIA notification, 2006.

4.0 You are requested to kindly submit the final EIA/EMP prepared as per TORs and incorporating all the issues raised during Public Hearing / Public Consultation to the

Ministry for considering the proposal for environmental clearance ***within 2 years as per the MoEF O.M. No. J-11013/41/2006-IA.II (I) dated 22nd March, 2010.***

5.0 The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India / National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc.

(Lalit Bokolia)
Additional Director

Copy to :

1. Chairman, Assam Pollution Control Board, Bahunimatram, Guwahati, Assam.
2. Chief Conservator of Forests (Western), Ministry of Environment & Forests, Regional Office, Upland Road, Laitumhran Shillong-793003

(Lalit Bokolia)
Additional Director

Subject: Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd. regarding TOR

M/s Oil India Ltd. have proposed for the award of 'TOR' for **Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam** and have submitted duly-filled 'Form-1', draft 'TOR' and 'Pre-feasibility Report' as per EIA Notification dated 14th September, 2006.

During presentation, PP informed that they have revised their proposal and proposed to drill 22 nos. of onshore wells. Exploration Block AA-ONN-2009/4 area is falling in the Jorhat District of Assam and covering an area of 84 sq. km and awarded to a joint consortium of Oil India Ltd. (OIL) and Oil and Natural Gas Corporation Ltd. during the NELP VIII round of bidding and the PSC for the block was signed Govt. of India on 30.06.2010. Oil India Ltd. OIL is the operator in this block. Subsequently, PEL for the area (84 sq. km) was granted w.e.f. 09.12.2011. PP confirmed that no forest land is involved. Well will be drilled upto 4000 m. Cost of project is Rs. 550 Crore. Borajan segment of Bherjan-Borajan-Padumoni WLS falls within the field. Dihing-Patkai WLS (1.7 Km from South-Eastern Field boundary). 4 wells located within 10 km radius of Dihing-Patkai WLS. 13 Wells located within 10 km radius of Borajan segment of Bherjan-Borajan-Padumoni WLS. Application for SC-NBWL approval has been submitted vide letter dated 29.05.2013. **Only one of the 22 proposed wells is located on the edge of forest area. Gibbon WL Sanctuary is located within 10km of project site.** Land requirement will be 2.2 ha per well. Power requirement will be met from DG set (125 kVA + 1000 kVA + 200 kVA). Water requirement from ground water source will be 10 KL during construction and 40 KLD/well during operation.

4.0 The Expert Appraisal Committee (Industry) discussed and finalized the draft TORs in **the 20th Reconstituted Expert Appraisal Committee (Industry) held during 23rd - 24th June, 2014 (F/X)**. 'TORs' suggested by the EAC (I) for incorporation in EIA/EMP study are as follows :

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
5. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
6. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
7. Details of project cost.
8. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
9. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
10. Topography of the project site.

11. Action plan for ambient air quality parameters as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x and Benzene, etc as per GSR 826(E) dated 16th November, 2009.
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17. Vegetation and land use; flora/fauna in the study area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation.
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20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
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36. Whether any burn pits being utilised for well test operations.
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43. Total capital and recurring cost for environmental control measures.
44. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
45. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
46. A tabular chart with index for point-wise compliance of above TORs.
47. Expansion/modernization proposals:

- i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
- ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

48. CRZ clearance/ recommendation from State Coastal Zone Management Authority, if applicable.

49. Approval of the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland shall be submitted.

50. The TORs prescribed shall be valid for a period of two years from the date of issue.

The following general points shall be noted:

- (i) All documents shall be properly indexed, page numbered.
- (ii) Period/date of data collection shall be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.
- (vii) The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

Additional TOR

- (i) **NBWL clearance shall be obtained for project within 10 km from Gibbon WL Sanctuary**

5.0 PAs may be requested as per **DFA** to :

- i. Prepare EIA/ EMP **Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam by M/s Oil India Ltd** as per the above mentioned TORs in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.
- ii. Address all the issues raised during the Public Consultation and incorporate them in the final EIA/EMP report and submit a copy of the Public hearing report alongwith video film to the Ministry for considering the proposal for environmental clearance ***within 2 years as per the MoEF O.M. No. J-11013/41/2006-IA.II (I) dated 22nd March, 2010.***

File is submitted for approval of TOR with public hearing as per DFA.

(Lalit Bokolia)
Additional Director
7th October, 2014

JS(AT)

J-11011/418/2014-IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003

E-mail : tchand2003@yahoo.co.uk

Telefax : 011: 2436 0108

Dated: 12th June, 2014

To,

Shri S.K.Jena General Manager(G&R)
M/s Oil India Limited
Dulijan Assam - 786602

Email.: skjena@oilindia.in Fax.: +91-0374-2801678

Subject: Proposal for carrying our Pre drilling EIA study of **M/s Oil India Ltd.** at Dist. Jorhat, Assam (TOR)

Ref. No.: Your Letter no. OIL/NELP/AA-ONN-2009/4/EC dated 05.04.2014

Sir,

The Ministry has received your above mentioned project proposal. The information given in Form-I along with Project summary and draft TORs will be placed before the 20th Reconstituted Expert Appraisal Committee (Industry) on 24th June, 2014(10.00 AM)# (item no.20.10.18) to be held at Scope Complex, Core 6, 5th Floor, IOCL Conference Room, Ministry of Petroleum and Natural Gas, Lodhi Road, New Delhi 110 003 subject to submission of additional information desired by the Ministry if any.

In this regard, you are requested to forward a copy of Form-1, Pre-feasibility Report and draft 'TOR' to all the members of the Expert Committee (I) by courier/speed post *alongwith soft copy in CD/through e-mail* well in time. Name and address of the members are enclosed for necessary action. Please avoid delivery of documents by hand and separate meetings with members / Chairman in this regard.

Further, you are requested to depute your senior officer/consultant who can explain the project and also respond to the queries/suggestions which Committee may ask during the discussion and may make as well necessary commitments to attend the meeting. The representatives would be required to make a presentation on the salient features of the project and proposed 'TOR'.

A copy of the above mentioned documents may also be sent to the **Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office, Kendriya Paryavaran Bhavan, Link Road No.3, Bhopal-462016** if any.

Salient features (1-2 pages) of the proposed project mentioning title of the project, land acquired, cost of the project, capital and recurring cost towards environment protection measures; proposed facilities and production capacities in tabular form, air pollution control measures proposed, water requirement, waste water treatment, recycle & reuse, solid / hazardous waste management and disposal, green belt may also be submitted by e-mail to tchand2003@yahoo.co.uk

Kindly confirm your participation and also send information as per the Agenda at the Ministry's website: www.envfor.nic.in to all concerned.

**(Dr. T.
Chandini)**
Director

**LIST OF MEMBERS OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY)**

<p>SHRI M RAMAN 3/686, Cauvery Nagar, Kuppam Road Kottivakkam Chennai – 60041</p> <p>e-mail : raman16@hotmail.com</p>	Chairman
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<p>DR. B SENGUPTA Former Member Secretary, CPCB, Member, Expert Appraisal Committee (I) 16 161, Medha Apartment, Mayur Vihar, Phase-I, Delhi-91 E-mail: bsg161@gmail.com</p>	Member
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<p>PROF. C.S. DUBEY Department of Geology Delhi University</p>	Member

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T.Chandini Director, MoEF Email : tchand2003@yahoo.co.uk Fax : 011: 2436 0108	Member Secretary

