# SUBMISSION OF FORM-I TOWARDS TERMS OF REFERENCE (ToR) FINALISATION

For



## M/s. INDIAN OIL CORPORATION LIMITED

INDANE LPG BOTTLING PLANT, Umium, (Near Shillong), Ri-Bhoi, Meghalaya



**Submitted by** 



M/s. SV ENVIRO LABS & CONSULTANTS
ENVIRO HOUSE, BLOCK-B, B-1, IDA, AUTONAGAR,
VISAKHAPATNAM (Dt), ANDHRA PRADESH

QCI No: 145, MoEF Recognized Laboratory

## FORM-1

## (I) Basic Information

| Sl.No. | Item   | Details   |  |  |
|--------|--|---|--|--|
| 1      | Name of the Project/s  | IndaneLPG Bottling Plant M/s. INDIAN OIL CORPORTATIONLIMITED Umium , (Near Shillong), Ri-Bhoi, Meghalaya.                             |  |  |
| 2      | S.No. in the schedule  | 6(b) – Isolated storage & handling ofhazardous chemicals  |  |  |
| 3      | Proposedcapacity/area/length/tonn age to be handled/command area/lease area/number of wells to be drilled. | LPG Storage :3 x 150 MT Mounded Storage Vessels each ofcapacity150 MT. LPG Bottling : 30,000 MTPA in one shift. Total Area – 17 Acres |  |  |
| 6      | Category of Project i.e. 'A' or 'B'  | Category 'B'  |  |  |
| 7      | Does it attract the general condition? If yes, please specify.   | No  |  |  |
| 8      | Does it attract the specific condition? If yes, please specify.  | No  |  |  |
|        | Topo sheet details   | 76 O/14   |  |  |
| 9      | Location   | Latitude -25°40'52.60"N<br>Longitude – 91°54'33.51"E  |  |  |
|        | Plot/Survey/Khasra No.<br>Village<br>Tehsil  | Umium (Near Shillong)<br>Umium  |  |  |
|        | District   | Ri-Bhoi   |  |  |
|        | State  | Meghalaya   |  |  |
|        | Pincode  | 793103  |  |  |
| 10     | Nearest railway station/airport along withdistancein kms.  | Railway Station: Tetelia Railway Station - 47Km  Airport: Shillong Airport – 7.2 Km   |  |  |
| 11     | Nearest Town, City, DistrictHeadquartersalong withdistance in kms.   | Shillong -11.6 Km   |  |  |
| 12     | Name of the Applicant  | M/s. INDIAN OIL CORPORTATION LIMITED  |  |  |
| 13     | Registered Address   | M/s. INDIAN OIL CORPORTATION LIMITED,   |  |  |
|        |  | G-9, Ali Yavar Jung Marg, Bandra (East)   |  |  |
|        |  | Mumbai – 400 051  |  |  |
| 14     | Address for correspondence:  |   |  |  |

| Sl.No. | Item  | Details  |
|--------|---|--|
|        | Name  | Sri Parthiv Dhar   |
|        | Designation (Owner/Partner  | CM (LPG-E)   |
|        | /CEO)   | Indian Oil AOD State Office<br>Indian Oil Bhavan, Sector – III<br>Noonmati, Guwahati, Assam  |
|        | Pin code  | 781020   |
|        | E-mail  | pdhar@indianoil.in   |
|        | Telephone No.   | 9435113318   |
|        | Fax No.   |  |
| 15     | Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.   | Not Applicable. Proposed site is abandoned / dismantled POL depot of Assam Oil Division(AOD) of IOCL and now proposed for LPG Bottling Plant |
| 16     | Interlinked Projects  | Nil  |
| 17     | Whether separate application of interlinked project has been submitted?   | NA   |
| 18     | If yes, date of submission  | NA   |
| 19     | If no, reason   | NA   |
| 20     | Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given.  The Forest (Conservation) Act, | NA   |
|        | 1980?   |  |
|        | The Wildlife (Protection) Act, 1972?  | NA   |
|        | The C.R.Z. Notification, 1991?  | NA   |
| 21     | Whether there is any Government   | Yes  |
|        | Order/Policy relevant /relating to the site?  | Order No. Sup. 140/80/302 dt. 29.06.88 (Land Transfer)   |
| 22     | Forest land involved (hectares)   | Nil  |

| Sl.No. | Item   | Details |
|--------|--|---------|
| 23     | Whether there is any litigation pending against the project and/or land in which the project is propose to be set up?  a) Name of the Court  b) Case No. | Nil     |
|        | c) Orders/directions of the Court, if any and its relevance with the proposed project.   |         |

## (II) Activities

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

| Sl.No. | Information/Checklist   | Yes/No | Details thereof (with approximate quantities   |
|--------|---|--------|--|
|        | confirmation  |        | /rates, wherever possible) with source of information data   |
| 1.1    | Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan) | No     | Bottling plant is proposed in Old decommissioned POL depot land and Proposed LPG plant will have storage of 3 x150 MT MSV (Mounded Storage Vessel) |
| 1.2    | Clearance of existing land, vegetation and buildings?   | No     |  |
| 1.3    | Creation of new land uses?  | No     | No change in land use.   |
| 1.4    | Pre-construction investigations e.g. bore houses, soil testing?   | Yes    | Soil testing were done.  |
| 1.5    | Construction works?   | Yes    | Construction of MSV for LPG Storage(3x150 MT) mounded storagevessels, LPG Bottling Shed and other auxiliary facilities.                            |
| 1.6    | Demolition works?   | Yes    | Old structures will be demolished.   |
| 1.7    | Temporary sites used for construction works Or housing of   | No     | Not Applicable   |

| Sl.No. | Information/Checklist confirmation   | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|--------|--|--------|---|
|        | construction workers?  |        |   |
| 1.8    | Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations                                    | Yes    | The proposed structures are above ground  |
| 1.9    | Underground works including mining or tunneling?   | No     | The proposed structures are above ground  |
| 1.10   | Reclamation works?   | No     | Not applicable  |
| 1.11   | Dredging?  | No     | Not applicable  |
| 1.12   | Offshore structures?   | No     | Not applicable  |
| 1.13   | Production and manufacturing processes?  | No     | Only Bottling of LPG  |
| 1.14   | Facilities for storage of goods or materials?  | Yes    | Mounded Storage Vessels for bulk LPG storage (3x150MT)  |
| 1.15   | Facilities for treatment or disposal of solid waste or liquid effluents?   | Yes    | Septic Tank –4 KL followed by soak pit<br>ETP – 9 KL Treatment and Recycling                            |
| 1.16   | Facilities for long term housing ofoperational workers?  | No     | Majority of manpower will be recruited from local people only.  |
| 1.17   | New road, rail or sea traffic duringconstruction or operation?   | No     | The site is well connected to roadway.  |
| 1.18   | New road, rail, air waterborne or<br>other transport infrastructure<br>including new or altered routes and<br>stations, ports, airports etc? | No     | NA  |
| 1.19   | Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?                                 | No     | No closure or diversion of existing transport routes or infrastructure will take place.                 |
| 1.20   | New or diverted transmission lines or pipelines?   | No     | Not required to divert transmission lines/<br>Pipelines.  |
| 1.21   | Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?                                 | No     | NA  |

| Sl.No. | Information/Checklist confirmation   | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data  |
|--------|--|--------|--|
| 1.22   | Stream crossings?  | No     | Nil  |
| 1.23   | Abstraction or transfers of water form ground or surface waters?                       | Yes    | Existing Bore-well   |
| 1.24   | Changes in water bodies or the land surface affecting drainage or run-off?             | No     |  |
| 1.25   | Transport of personnel or materials for construction, operation or decommissioning?    | Yes    | During construction private trucks will beused for supply of metal, sand, cement andiron bar.  During operation Bulk LPG will be broughtto through bulk tank trucks. |
| 1.26   | Long-term dismantling or decommissioning or restoration works?                         | No     | Not Applicable   |
| 1.27   | Ongoing activity during decommissioning which could have an impact on the environment? | No     | Not Applicable   |
| 1.28   | Influx of people to an area in eithertemporarily or permanently?                       | No     | Semi-Skilled, Un skilled manpower from nearby localvillages during construction phasetemporarily.  |
| 1.29   | Introduction of alien species?   | No     | No alien species will be introduced / encouraged.  |
| 1.30   | Loss of native species or genetic diversity?   | No     | There will be no loss of native or genetic diversity.  |
| 1.31   | Any other actions?   | No     |  |

## 2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

| Sl.No. | Information/Checklist confirmation                    | Yes/No | Details thereof (with approximate quantities/<br>rates, wherever possible) with source of<br>information data |
|--------|---|--------|---|
| 2.1    | Land especially undeveloped or agricultural land (ha) | No     |   |

| 2.2 | Water (expected source & competing users) unit: KLD   | Yes | Daily water requirement is met by own tube wells. During operation water consumption will be 5 KL for domestic.                                |
|-----|---|-----|--|
| 2.3 | Minerals (MT)   | No  |  |
| 2.4 | Construction material – stone, aggregates, sand / soil (expected source – MT)                 | Yes | Mounds will be provided using sand and protected by a retaining wall. Stone, aggregate, sand, steel etc will be used for construction.         |
| 2.5 | Forests and timber (source – MT)  | No  |  |
| 2.6 | Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW) | Yes | 250 KVA from State Electricity Board Alternatively, D.G set of capacity 1x160KVA &2x250kVA will be installed as emergency backup power supply. |
| 2.7 | Any other natural resources (use appropriate standard units)                                  | No  | No other natural resources will be usedexcept as mentioned above.  |

## 3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

| Sl.No. | Information/Checklist confirmation   | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data                                     |
|--------|--|--------|---|
| 3.1    | Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies) | Yes    | Bottling of LPG will be handled as per OISD norms.  |
| 3.2    | Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)   | No     |   |
| 3.3    | Affect the welfare of people e.g., by changing living conditions?  | Yes    | <ul> <li>Available of LPG and reduction inuse of fire wood.</li> <li>Employment directly and indirectly</li> <li>Energy Security</li> </ul> |
| 3.4    | Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,                           | No     |   |
| 3.5    | Any other causes?  | No     | NA  |

## 4. Production of solid wastes during construction or operation or commissioning (MT/month)

| Sl.N | Information/Checklist confirmation                         | Yes/No | Details thereof (with approximate  |
|------|--|--------|--|
| 0.   |  |        | quantities /rates, wherever possible) with source of information data  |
| 4.1  | Spoil, overburden or mine wastes                           | No     | No mine waste / mine activity. No overburden soil. The excavatedmaterial, during the foundation will be used for filling.                                |
| 4.2  | Municipal waste (domestic and or commercial wastes)        | Yes    | Municipal solid waste is disposedthrough ULB.  |
| 4.3  | Hazardous wastes (as per Hazardous Waste Management Rules) | Yes    | Old unused batteries shall be disposed offthrough the buyback policy / authorized agencies. Used Lubricating Oil will bedisposed to AuthorizedRecyclers. |
| 4.4  | Other industrial process wastes                            | No     | Nil  |
| 4.5  | Surplus product  | No     | No surplus product will be produced.   |
| 4.6  | Sewage sludge or other sludge from effluent treatment      | No     | NA   |
| 4.7  | Construction or demolition wastes                          | No     |  |
| 4.8  | Redundant machinery or equipment                           | No     |  |
| 4.9  | Contaminated soils or other materials                      | No     |  |
| 4.10 | Agricultural wastes  | No     |  |
| 4.11 | Other solid wastes   | No     |  |

## 5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

| Sl.No. | Information/Checklist confirmation  | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data   |
|--------|---|--------|---|
| 5.1    | Emissions from combustion of fossil fuels from stationary or mobile sources | Yes    | A. Point sources: D.G sets 1. 1 x 160 kVA 2. 2x250 kVA 3. Fire Engines. B. Vehicular emissions: Movement of trucks used for transportation of LPG |
| 5.2    | Emissions from production processes   | No     | No production process is involved   |
| 5.3    | Emissions from materials handling including storage or transport            | No     | Not Applicable  |
| 5.4    | Emissions from construction activities                                      | No     | Not Applicable  |

|     | including mine and equipment  |    |  |
|-----|---|----|--|
| 5.5 | Dust or odors from handling of materials including construction materials, sewage and waste | No | Proper care should be taken during construction for control of fugitive emissions. |
| 5.6 | Emissions from incineration of waste  | No | Will not be permitted.   |
| 5.7 | Emissions from burning of waste in open air (e.g. slash materials, construction debris)     | No | No open air burning.   |
| 5.8 | Emissions from any other sources  | No | Will not be permitted.   |

## 6. Generation of Noise and Vibration, and Emissions of Light and Heat:

| Sl.No. | Information/Checklist confirmation                                   | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data  |
|--------|--|--------|--|
| 6.1    | From operation of equipment e.g. engines, ventilation mine, crushers | Yes    | DG set with acoustic enclosures as per statuary norms.   |
| 6.2    | From industrial or similar processes                                 | Yes    | Noise from operation of processequipment, compressors, pumps, etc. within permissible limits.  |
| 6.3    | From construction or demolition                                      | Yes    | The construction work will be restricted from dawn to dusk. Measures will be taken to limit the noise due to construction equipment and movement of vehicles.                    |
| 6.4    | From blasting or piling  | No     | No blasting or piling operation required.  |
| 6.5    | From construction or operational traffic                             | Yes    | There will be temporary increase in traffic during construction stage and during operating stage. During operational stage parking facility will be there for TT and bulk trucks |
| 6.6    | From lighting or cooling systems                                     | No     | NA   |
| 6.7    | From any other sources   | No     | NA   |

## 7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

| Sl.No. | Information/Checklist confirmation  | Yes/<br>No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data      |
|--------|---|------------|--|
| 7.1    | From handling, storage, use or spillage of hazardous materials  | No         | 0.5 KL of waste oil will be generated and will be disposed through authorized recyclers.                     |
| 7.2    | From discharge of sewage or other effluents to water or the land (expected mode and place of discharge) | No         | Domestic effluent will be treated in septic tank followed by soak pit and cylinder washing will be recycled. |
| 7.3    | By deposition of pollutants emitted to air into the land or into water                                  | No         | D.G sets are fitted with stacks as per CPCB guidelines.  |
| 7.4    | From any other sources?   | No         | Will not arise   |
| 7.5    | Is there a risk of long term build up of pollutants in the environment from these sources?              | No         | No pollutants will be built up in the Environment. Therefore no risk from anysources.                        |

## 8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

| Sl.No. | Information/Checklist confirmation  | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data                                 |
|--------|---|--------|---|
| 8.1    | From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances                                 | No     | All facilities will be operated as per OISD norms   |
| 8.2    | From any other causes   | No     | Will not arise.   |
| 8.3    | Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)? | No     | The project site falls under Seismic Zone V as per Indian Standard Seismic Zoning Map. All proposed structures as per applicable norms. |

## 9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

| Sl.No. | Information/Checklist confirmation | Yes/<br>No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|--------|------------------------------------|------------|---|
| 9.1    | Lead to development of supporting  | No         |   |

|     | facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:  • Supporting infrastructure (roads, power supply, Waste or waste water treatment, etc.)  • Housing development  • Extractive industries  • Supply industries  • Other |    |  |
|-----|--|----|--|
| 9.2 | Lead to after-use of the site, which could have an impact on the environment   | No | No impact envisaged  |
| 9.3 | Set a precedent for later developments   | No | Positive Development in terms of Environment by end use of LPG instead of fossil fuels and through indirect employment opportunities due to the Plant. |
| 9.4 | Have cumulative effects due to proximity to other existing or planned projects with similar effects  | No | No cumulative effects will occur.  |

## (III) Environmental Sensitivity

| Sl.<br>No. | Area   | Name/<br>Identity | Aerial distance (within 15 km.) Proposed project location boundary |
|------------|--|-------------------|--|
| 1          | Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value            | No                | None within 15km radius from the proposed project site.            |
| 2          | Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests | Yes               | Upper Shillong Forest – 14 Km                                      |
| 3          | Areas used by protected, important or<br>sensitive species of flora or fauna for<br>breeding, nesting, foraging, resting, over<br>wintering, migration     | No                | None within 15km radius from the proposed project site.            |
| 4          | Inland, coastal, marine or underground waters  | Yes               | Umiam Lake – 1.1 Km  |

| Sl.<br>No. | Area   | Name/<br>Identity | Aerial distance (within 15 km.) Proposed project location boundary  |
|------------|--|-------------------|---|
| 5          | State, National boundaries   | No                | None within 15km radius from the proposed project site  |
| 6          | Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas   | Yes               | Umiam lake – 1.1 Km   |
| 7          | Defense installations  | No                | None within 15km radius from the proposed project site.   |
| 8          | Densely populated or built-up area   | Yes               | Shillong is at 11.6 km from proposed project site.  Umiam – 1.7 Km  |
| 9          | Areas occupied by sensitive man-made land uses  (Hospitals, schools, places of worship, community facilities)  | Yes               | Hospitals, schools etc., are located in Shillong which is within 15 Km of the proposed project site.  ICAR Research Complex, Barapani is adjacent to project site.  KendriyaVidyalaya, UmroiCantt. – 3.4 Km |
| 10         | Areas containing important, high quality or scarce resources  (Ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)   | Yes               | Umiam Lake – 1.1 Km   |
| 11         | Areas already subjected to pollution or environmental damage.  (Those where existing legal environmental standards are exceeded)   | No                | None within 15km radius from the proposed project site.   |
| 12         | Areas susceptible to natural hazard which could cause the project to present environmental problems  (Earthquakes, subsidence, landslides, erosion, flooding for extreme or adverse climatic conditions) | Yes               | Project is falling under Seismic Zone - V   |

"I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date:

Place: Gauwhati

(Bimal Pathak)

(Bimal Pathak)

Dy. General Manager (LPG) I/C

Indian Oil AOD State Office

Indian Oil Bhavan, Noomati

Sector – III, Guwahati-20

(Project Proponent /Authorized Signatory)

#### Note:

- 2. The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the state of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.
- 3. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the state of EC)."
- 4. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project."

## STANDARD TEMPLATE FOR EVALUATION OF ALL PROJECTS/ ACTIVITIES:-

| S.No | Information required  | Information to be furnished by the proponents   |
|------|---|---|
| 1    | Name of the project or activity   | Indane Bottling Plant   |
|      |   | M/s. INDIAN OIL   |
|      |   | CORPORTATION LIMITED  |
|      |   | Umium, (Near Shillong), Ri-   |
|      |   | Bhoi, Meghalaya.  |
| 2    | Name of the organization/owner.   | Indian Oil Corporation Ltd.   |
| 3    | Address for communication   | Indian Oil Bhavan, Sector – III<br>Noonmati, Guwahati, Assam-<br>781020   |
| 4    | Telephone numbers   | 9435113318  |
| 5    | Email ID of the organization or contact person  | pdhar@indianoil.in  |
| 6    | Location of the Proposed project or activity  | M/s. INDIAN OIL CORPORTATION LIMITED  |
|      |   | Umium , (Near Shillong), Ri-<br>Bhoi, Meghalaya.  |
| 7    | Appraisal Category (B2 or B1)   | В   |
| 8    | Nearest habitation and distance from the project or activity  | Umium-1.7 km  |
|      | activity  | Shillong – 11.6 kms   |
| 9    | Installed capacity / Production Capacities  | LPG Storage :3 x 150 MT<br>Mounded Storage Vessels each<br>ofcapacity150 MT.<br>LPG Bottling : 30,000 MTPA<br>Total Area – 17 Acres                       |
| 10   | Specify the Fuel (Coal / CNG / biomass/Others) and quantity required  | Diesel for Generators   |
| 11   | Details of Land use/Land Cover  | The land was earlier used for industrial purpose for POL depot which was decommissioned in Nov'2009. Bottling plant is proposed in the same plot of land. |
| 12   | Occupancy, ownership of the land in which the   | Leased land from Govt of  |
|      | activity is proposed: (Government land / Private land / Forest land   | Meghalaya.  |
|      | Revenue land /Temple land /leased land/ land  |   |
| 13   | belongs to other Department)  If it is a Forest land, the following details shall be  | No forest area covers under the   |
|      | furnished:  | proposed site area.   |
|      | (Whether it is a Reserved forest / Protected forest/Demarcated forest/ National Parks/Sanctuaries/any land in possession of Forest Department.) |   |

|    | (The village map with Sy. No. indicating nearest forest boundary line from the site shall be enclosed)  |  |
|----|---|--|
| 14 | Total investment of the project/activity.   | Rs. 73.98 Crores   |
|    | a. Funds allocated for EMP (capital cost and recurring cost per annum)  | Capital cost – Rs. 73.98 Crores<br>EMP Cost – Rs. 2.0 Crores |
| 15 | Brief description of the project with special reference to specific pollution and its control measures.   | Enclosed in PFR  |
| 16 | Compliance report on the following:   |  |
|    | i. Status of compliance of the conditions and Environmental safeguards stipulated in the earlier clearance letters.   | Not applicable as the proposed project is new one            |
|    | ii. Details of the court cases, if any, pending in any Court of Law against the project as well as any directions passed by the Court relating to the project directly or indirectly.           | NIL  |
|    | iii. Details of the notices, if any, given to the project under Section 5 of the Environmental (Protection) Act, 1986 and Section 18 of the Air (Prevention & Control of Pollution) Act, 1981.  | NIL  |
| 17 | Whether the project attracts the provisions laid under<br>the OM dt. 16.11.2012 issued by the MoE&F, GOI,<br>w.r.t. violation of EIA Notification, 2006 and its<br>amendments thereof? (Yes/No) | No   |
|    | Present stage and status of the project:  | Construction not yet started                                 |
| 18 | Name of the Consultant:   | SV Enviro Labs & Consultants, Visakhapatnam.                 |

#### **DECLARATION**

- (a) I/We / M/s. Sri Bimal Pathak, DGM(LPG) I/C, Indian Oil Corporation Limited hereby declare that I/We/ our organization does not /do not have conflict of interest with the Chairmen and members of EAC, MoEF&CC.
- (b) I/We hereby declare that Sri Parthiv Dhar, CM (LPG-ENG) of our company / organization is/are authorized to submit the application and to do all necessary correspondence for obtaining environmental clearance from MoEF, New Delhi and to attend the meeting (s) of MoEF, New Delhi to present our case and to clarify the points raised by the Members of MoEF, New Delhi.
- (c) I/we hereby declare that the information furnished above is true to best of my/our knowledge and I/we shall hold personal liability for any deliberate misrepresentation and or concealment of factual information. If the information furnished is found to be false, the EC issued to our organization can be withdrawn and I/we are liable for action as per rules applicable.

| Date:      | Place:   |   |
|------------|----------|---|
| 20.08.2018 | Guwahati | [ Bimal Pathak ] DGM (LPG) I/C Indian Oil AOD State Office Indian Oil Bhavan, Sector – III Noonmati, Guwahati, Assam-781020 |



### इंडियन ऑयल कॉर्पोरेशन लिमिटेड

इंडियनऑयल भवन, सेक्टर-॥ नुनमाटी, गुवाहाटी-781020 (असम) फोन : 0361-7109250, 2550604, 2655889 फैक्स : 0361-2550764



IndianOil



इंडियनऑयल-एओडि राज्य कार्यालय IndianOil-AOD State Office

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**Indian Oil Corporation Limited** 

Date: 20.08.2018

To The Member Secretary, Expert Appraisal Committee (Industrial Projects - 2) MoEF&CC, Indira Parayavaran Bhavan, Lodhi Road, New Delhi.

Sir,

| Sub: | M/s. Indian oil Corporation Limited-Intimation of the Authorised Signatory-Reg.            |
|------|--|
| Ref: | Amendments to EIA-2006 notification issued vide S.O.3067 (E) dt. 01.12.2009 by MoE&F, GOI. |

With reference to above, it is to inform that the project proponent Sri Bimal Pathak DGM (LPG) I/C of M/s. Indian Oil Corporation Limited, State Office, Assam has authorized Sri Parthiv Dhar, CM (LPG-E) to make all necessary correspondence with the MoEF, New Delhi on behalf of the proponent for obtaining the Environmental Clearance for their proposed bottling plant located at Umiam (Near Shillong), Ri-Bhoi, Meghalaya.



Yours faithfully,

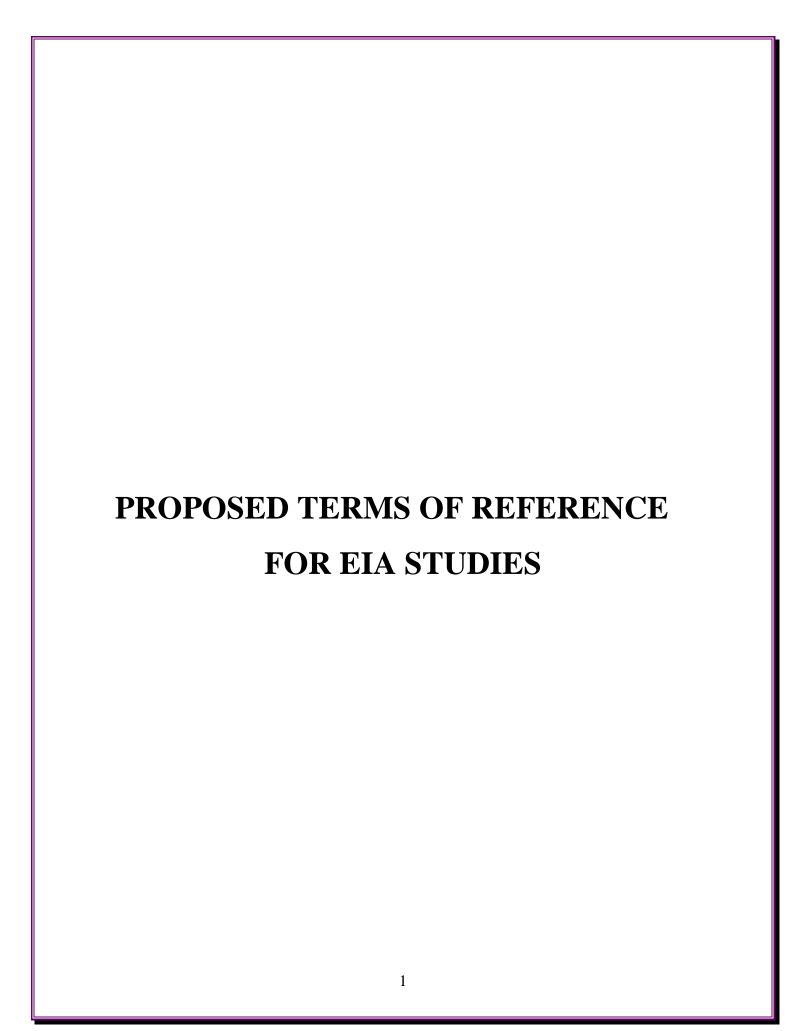
M/s. Indian Oil Corporation Limited,

(Bimal Pathak)

DGM (LPG) I/C

(Parthiv Dhar) CM (LPG-E)

पंजीकृत कार्यालय: जी-9,अली यावर जंग सार्ग, बान्द्रा(पूर्व), मुंबई-400 051 Regd. Office: G-9, Ali Yavar Jung Marg, Bandra (East), Mumbai-400 051 (india) CIN:L23201mh1959GOI011388



## **Proposed Terms of Reference (TOR) for EIA studies**

| SI.<br>No. | Finalized "Terms of Reference"                    | Reference in EIA Report   |  |
|------------|---|---|--|
| 1          | Executive Summary                                 | Will be provided in EIA Report  |  |
| 2          | Introduction                                      |   |  |
|            |   | SV Enviro Labs & Consultants  |  |
| i.         | Details of the EIA consultant                     | Enviro House, Block-B, B-1, IDA,  |  |
| 1.         | including NABET accreditation                     | Autonagar -12, Visakhapatnam,   |  |
|            |   | Andhra Pradesh, QCI NO: 145   |  |
| ii.        | Information about the project proponent           |   |  |
|            | Importance and benefits of the                    | Energy security, increase in use of green fuel and  |  |
| iii.       | project   | increase LPG penetration under Pradan Mantri  |  |
|            | project   | Ujjawala Yojana (PMY)   |  |
| iii.       | Importance and benefits of the project            | <ol> <li>To provide timely delivery of domestic LPG Refills to customers of this area and to fulfill the purpose of supplying domestic and commercial LPG to residents of Shillong and nearby districts/industries.</li> <li>Employment Generation</li> <li>Infrastructure development</li> </ol> |  |
| 3          | Project Description                               |   |  |
| i.         | Cost of project and time of completion            | Rs. 73.98 Cores & 24 months from date of granting Environmental Clearance (EC)  |  |
| ii.        | Products with capacities for the proposed project | Mounded Storage Vessels - 3 x 150 MT (450 MT)<br>Bottling Capacity : 30 TMTPA<br>Total Area – 17 Acres  |  |

| iii.  | If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any. |   |
|-------|--|---|
| iv.   | List of raw materials required and their source along with mode of transportation  | LPG received from Assam Refinery through road tankers   |
| v.    | Other chemicals and materials required with quantities and storage capacities  | Not Applicable  |
| vi.   | Details of emission, effluents,<br>hazardous waste generation and<br>their management  | Enclosed in PFR. Brief details will be Provided in EIA Report   |
| vii.  | Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular & contract)                | <ol> <li>Water Required: 5 KLD sourced from tube well</li> <li>Power Demand: 250 KV sourced from State         Electricity board &amp; alternative source from 1x         160 KVA &amp; 2x250 kVA DG sets</li> <li>Man power: 42 Persons (Full time &amp; Part time)</li> </ol> |
| viii. | Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw material to products to be provided         | Enclosed in PFR. Brief details will be Provided in EIA Report   |
| ix.   | Hazard identification and detail of proposed safety systems  | Will be provided in EIA report  |
| х.    | Expansion/modernization proposals  | :   |

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 Environment and Forests as per circular dt: 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall 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.

A.

New Facility

|      | 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              |       |  |
| B.   | Establish/No objection Certificate          | Not A | applicable   |
|      | and Consent to Operate (in case of          |       |  |
|      | inputs 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.                    |       |  |
| 4    | Site Details                                |       |  |
|      | Location of the project site cov            | ering | Site, 17 Ages  |
| i.   | village, Taluka/Tehsil, District and State, |       | Site: 17 Acres,  |
| 1.   | Justification for selecting the site,       |       | Selection of Site: Proposed storage facility is old abandoned POL depot and now proposed for |
|      | whether other sites were considered         |       | LPG Bottling Plant   |
|      | A topo sheet of the study area of r         | adius |  |
| ii.  | of 10km and site location                   | on    | Toposheet Will be provided in EIA  |
| 11.  | 1:50,000/1:25,000 scale on an A             | 3/A2  | Topositeet ii iii oo provided iii Diri   |
|      | sheet                                       |       |  |
|      | Details w.r.t. option analysis              | for   | Alternate site selection is not relevant as the  |
| 111. | selection of site                           |       | proposed project is old IOCL POL depot.  |
|      |   |       |  |

| iv.   | Co-ordinates (lat-long) of all four corners of the site  | Latitude: 25°40'52.60 "N<br>Longitude: 91°54'33.51"E                         |
|-------|--|--|
| v.    | Google map-Earth downloaded of the project site  | Enclosed with PFR.   |
| vi.   | Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate | Will be provided in EIA Report   |
| vii.  | Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular  | Will be provided in EIA Report   |
| viii. | Land use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)  | The proposed project site is in industrial area only.  Total Land – 17 Acres |
| ix.   | A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area  | Will be provided in EIA Report   |
| X.    | Geological features and Geo-<br>hydrological status of the study area shall<br>be included   | Will be provided in EIA Report   |

| xi.   | Details of Drainage of the project up to 5km radius of study area   | Will be provided in EIA Report  |
|-------|---|---|
| xii.  | Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land  | Own lease land  |
| xiii. | R&R details in respect of land in line with state Government policy   | Not Applicable as the proposed project will be within the existing premises |
| 5     | Forest and Wildlife related issues  | None Within 10 Km Radius  |
| 6     | Environment Status  |   |
| i.    | Determination of atmospheric inversion level at the project site and site-specific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall  | Will be provided in EIA report  |
| ii.   | AAQ data (except monsoon) at 8 locations for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NOx, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests. | Non Monsoon monitoring will be done for 3 months.                           |

|       | Raw data of all AAQ measurement for       |  |
|-------|---|--|
|       | 12 weeks of all stations as per frequency |  |
|       | given in the NAQQM Notification of No.    |  |
|       | 2009 along with min., max., average and   |  |
| iii.  | 98% values for each of the AAQ            |  |
|       | parameters from data of all AAQ stations  |  |
|       | should be provided as an Annexure to the  |  |
|       | EIA report                                |  |
|       | Surface water quality of nearby River     |  |
|       | (100m upstream and downstream of          |  |
| iv.   | discharge point) and other surface drains |  |
|       | at eight locations as per                 |  |
|       | CPCB/MoEF&CC guidelines.                  |  |
|       | Whether the site falls near to polluted   | No, the site does not falls near to polluted |
| v.    | stretch of river identified by the        | stretch of river identified by CPCB/MoEF&CC. |
|       | CPCB/MoEF&CC, if yes give details         | street of five Rentified by of object coo.   |
|       | Ground water monitoring at minimum at     |  |
| vi.   | 8 locations shall be included             |  |
|       |   | Monitoring will be done for 3 months         |
| vii.  | Noise levels monitoring at 8 locations    |  |
|       | within the study area                     |  |
|       | Soil characteristics as per CPCB          |  |
| viii. | guidelines                                | Will be provided.                            |
|       |   |  |
|       | Traffic study of the area, type of        |  |
| _     | vehicles, frequency of vehicles for       |  |
| Ix.   | transportation of materials, additional   | Traffic study will be done                   |
|       | traffic due to proposed project, parking  |  |
|       | arrangement etc                           |  |

| х.  | Detailed description of flora and (terrestrial and aquatic) existing is study area shall be given with spreference to rare, endemic endangered species. If Schedule I are found within the study are Wildlife Conservation Plan shall prepared and furnished   | n the pecial and fauna ea, a | None within 15 km Aerial distance from proposed project site. |
|-----|--|------------------------------|---|
| xi. | Socio-economic status of the study a   | area                         | Will be provided in EIA Report                                |
| 7   | Impact and Environment Manageme  | ent Pla                      | n   |
| i.  | Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Cumulative impact of all sources of emissions on the AAQ of the area shall be assessed Details of the model used and the input data used for modeling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, Sensitive receptors, if any. | Will                         | pe provided in EIA Report                                     |
| ii. | Water quality modelling – in case of discharge in water body   | Not A                        | applicable  |

| Impact of transport of raw                              |   |
|---|---|
| materials and end products on                           |   |
| surrounding environment shall be                        |   |
| assessed and provided. In this                          |   |
| regard, options for transport of                        |   |
| raw materials and finished                              | Will be provided in EIA Report  |
| products and wastes (large                              |   |
| quantities) by rail or rail-cum road                    |   |
| transport or conveyor-cum-rail                          |   |
| transport shall be examined.                            |   |
| A note on treatment of waste                            |   |
| water from different plant                              |   |
| operations, extent recycled and                         |   |
| reused for different purposes shall                     |   |
| be included. Complete scheme of                         | Detail description will be provided in EIA Report   |
| effluent treatment. Characteristics                     |   |
| of untreated and treated effluent to                    |   |
| meet the prescribed standards of                        |   |
| discharge under E(P) Rules.                             |   |
| Datails of stock amission and                           | 1 x 160 KVA   |
| action plan for control of emissions to meet standards. | 2 x 250 KVA (Alternative power source)  |
|   | Only Stack of DG sets will be provided at the heights   |
|   | of 5 mts (GL) for dispersion of emissions.  |
|   | Preventative maintenance of vehicles and equipment,   |
|   | Vehicles with valid pollution under Control certificates  |
| Magguras for fligitive emission                         | to be used, Implementing dust control activities such as  |
| control   | water sprinkling on unpaved sites, Controlled vehicle   |
|   | speed on site, Vehicle to be covered during   |
|   | transportation of material, Developing peripheral green   |
|   | belt, Monitoring of air polluting concentrations.   |
|   | materials and end products on surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.  A note on treatment of waste water from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.  Details of stack emission and action plan for control of emissions to meet standards.  Measures for fugitive emission |

| vii.  | Details of hazardous waste generation and their storage, utilization and management.  Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle, reuse/recover techniques, Energy conservation and natural                            | During Operation phase hazardous materials are stored and disposed as per the rules. Lubricating oils, diesel, will be stored in separate earmarked area and disposed to authorized recyclers. |
|-------|---|--|
| viii. | resource conservation  Proper utilization of fly ash shall be ensured as per fly Ash Notification, 2009. A detailed plan of action shall be provided  | Fly ash will be used if required   |
| ix.   | Action plan for the greenbelt development plan in 33% area i.e., land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. Shall be included. The greenbelt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated. | The proposed project is having 17 Acers  |

|       | Action plan for rainwater             |   |
|-------|---------------------------------------|---|
|       | harvesting measures at plant site     |   |
|       | shall be submitted to harvest         |   |
|       | rainwater from the roof tops and      |   |
|       | storm water drains to recharge the    | Dain water hamasting will be done                       |
| х.    | ground water and also to use for      | Rain water harvesting will be done.                     |
|       | the various activities at the project |   |
|       | site to conserve fresh water and      |   |
|       | reduce the water requirement from     |   |
|       | other sources                         |   |
|       | Total capital cost and recurring      | Project Cost: Rs. 74 Crores. Recurring cost for         |
| xi.   | cost/annum for environmental          | pollution control shall be around 5-10 lakhs per annum. |
| AI.   | pollution control measures shall      | ponduon control shan be around 3-10 takns per aimum.    |
|       | be included.                          |   |
|       | Action plan for post-project          |   |
| xii.  | environmental monitoring shall be     | Will be provided in EIA Report                          |
|       | submitted.                            |   |
|       | Onsite and Offsite Disaster           |   |
|       | (natural and man-made)                |   |
|       | preparedness and emergency            |   |
| xiii. | management plan including Risk        | Will be provided in EIA Report                          |
| XIII. | Assessment and damage control.        | will be provided in ETA Report                          |
|       | Disaster management plan should       |   |
|       | be linked with District Disaster      |   |
|       | Management plan.                      |   |
|       |                                       |   |
| 8     | Occupational Health                   |   |
|       | Diamand Candall                       |   |
| i.    | Plan and fund allocation to ensure    | IOCL follows OISD norms to maintain occupational        |
|       | the occupational health & safety      | health and safety of the employees and workers.         |
|       | of all contract and casual workers    |   |

|      | T                                   |  |
|------|-------------------------------------|--|
|      | Details of exposure specific health |  |
|      | status evaluation of worker. If the |  |
|      | workers health is being evaluated   |  |
|      | by pre designed format, chest x-    |  |
|      | rays, Audiometry, Spirometry,       |  |
|      | Vision testing (Far & Near vision,  | As per the policy of IOCL regular medical comps will |
|      | colour vision and any other ocular  | As per the policy of IOCL regular medical camps w    |
| ii.  | defect) ECG, during pre             | be organized.  |
|      | placement and periodical            | D. C.L. H. H. H. FIAD                                |
|      | examinations give the details of    | Brief details will be provided in EIA Report         |
|      | the same. Details regarding last    |  |
|      | month analyzed data of above        |  |
|      | mentioned parameters as per age,    |  |
|      | sex, duration of exposure and       |  |
|      | department wise.                    |  |
|      | Details of existing Occupational    |  |
|      | & Safety hazards. What are the      |  |
|      | exposure levels of hazards and      |  |
|      | whether they are within             |  |
| iii. | permissible exposure level (PEL).   | Will be provided in EIA Report                       |
| 111. | If these are not within PEL., what  | will be provided in ETA Report                       |
|      | measures the company has            |  |
|      | adopted to keep them within PEL     |  |
|      | so that health of the workers can   |  |
|      | be preserved.                       |  |
|      | Annual report of health status of   |  |
| iv.  | workers with special reference to   | Will be provided in EIA Report                       |
|      | Occupational health and safety.     |  |
| 9    | Corporate Environment Policy        |  |

|      | Does the company have a well         |                                |
|------|--------------------------------------|--------------------------------|
| i.   | laid down Environment policy         |                                |
|      | approved by its Board of             | Will be provided in EIA Report |
|      | Directors? If so, it may be detailed |                                |
|      | in the EIA Report.                   |                                |
|      | Does the Environment Policy          |                                |
|      | prescribe for standard operating     |                                |
|      | process/procedures to bring into     |                                |
| ii.  | focus any infringement/ deviation/   | Will be provided in EIA Report |
|      | violation of the environmental or    |                                |
|      | forest norms/ conditions? If so, it  |                                |
|      | may be detailed in the EIA.          |                                |
|      | What is the hierarchical system or   |                                |
|      | Administrative order of the          |                                |
|      | company to deal with the             |                                |
| iii. | environmental issues and for         | Will be provided in EIA Report |
| 111. | ensuring compliance with the         | will be provided in ETA Report |
|      | environmental clearance              |                                |
|      | conditions? Details of this system   |                                |
|      | may be given.                        |                                |
|      | Does the company have system of      |                                |
|      | reporting of non                     |                                |
|      | compliances/violations of            |                                |
|      | environmental norms to the Board     |                                |
| iv.  | of directors of the company and/or   | Will be provided in EIA Report |
|      | shareholders or stakeholders at      |                                |
|      | large? This reporting mechanism      |                                |
|      | shall be detailed in the EIA         |                                |
|      | Report.                              |                                |

| 10 | Details regarding infrastructure facilities such as sanitation, fuel, restroom etc to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase   | Driver rest room, worker amenity block are provided and other requisite facilities will be provided. |
|----|---|--|
| 11 | Enterprise social Commitment (ESC   | C)   |
| i. | Adequate funds (at least 2.5% of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and itemwise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon. | 2.5% of the project cost is proposed to be spent on CSR activities.                                  |

|    | Any litigation pending against the  |
|----|-------------------------------------|
|    | project and/or any direction/order  |
|    | passed by any court of Law          |
|    | against the project, if so, details |
|    | thereof shall also be included. Has |
| 10 | the unit received any notice under  |
| 12 | the Section 5 of Environment        |
|    | (Protection) Act, 1986 or relevant  |
|    | sections of Air and Water Acts? If  |
|    | so, details thereof and             |
|    | compliance/ATR to the notice(s)     |
|    | and present status of the case.     |
|    |                                     |

Request for SEIAA to exempt public hearing as the proposed project is located within existing facility.