

## CHAPTER 4

### PRE- SUBMISSION STAGE OF EIA REPORT

#### 4.1 Screening

Prior to conducting an EIA study, the Project Proponent and the Qualified Person (i.e. the EIA Consultant) shall carry out the screening process to determine whether a proposed project is a prescribed activity under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 2015. The Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 2015 is reproduced in **Appendix 6**. The EIA Consultant needs to determine which Schedule the proposed project falls under: the First Schedule or the Second Schedule. The EIA for First Schedule projects follows a different EIA procedure from the EIA for Second Schedule projects, as described in Chapter 3.

#### The Case Where the Proposed Project Has More Than One Prescribed Activity

If the proposed project consists of more than one prescribed activity and one of them falls under the Second Schedule, then the project as a whole shall be considered to fall under the Second Schedule of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 2015.

#### 4.2 Scoping and Terms of Reference

The scoping process to identify the impacts of specific projects on the environment shall follow the EIA guidelines for specific projects issued by the DOE. An example of environmental assessment matrix to assist the Project Proponent and the EIA Consultant to identify significant impacts of projects is given in **Appendix 7**. From the scoping process the EIA Consultant then prepares an Environmental Scoping Information (ESI) that determines the proposed Terms of Reference (TOR) for the EIA

study. The general requirements for scoping process and TOR preparation shall follow those described in Chapter 3.

#### **4.2.1 Terms of Reference for Activities Falling Under the First Schedule**

For prescribed activities that fall under the First Schedule, the EIA Consultant shall prepare an Environmental Scoping Information (ESI) that determines the proposed - Terms of Reference (TOR) for the EIA study and submit it to the DOE State Office for endorsement. The ESI and TOR will be assessed and endorsed by the Director of DOE State Office either through a TORAC meeting or mail correspondence, whichever deemed appropriate. Subsequently, when the EIA Report has been prepared, it shall be submitted to the relevant DOE state office for review, as described in Chapter 3.

##### **4.2.1.1 Terms of References (TOR) Review Procedure**

The output of scoping exercise is the terms of reference (TOR). The Project Proponent shall first submit to the DOE the TOR together with the Environmental Scoping Information (ESI), in accordance with the format outlined in the Guidance Document For Preparing Terms Of Reference (TOR) and/or specific EIA guidelines (if available) for endorsement. **Appendix 8** gives a general guidance on scoping and also the general contents of TOR which shall be followed in the TOR formulation.

The review of the TOR is carried out by the EIA Technical Review Committee (EIATRC) comprised of TRC members (a team of DOE officers at the State Office), and may include individuals who are specifically appointed (AIs) on an ad hoc basis from within or outside of the DOE as well as representatives from government agencies (GAs).

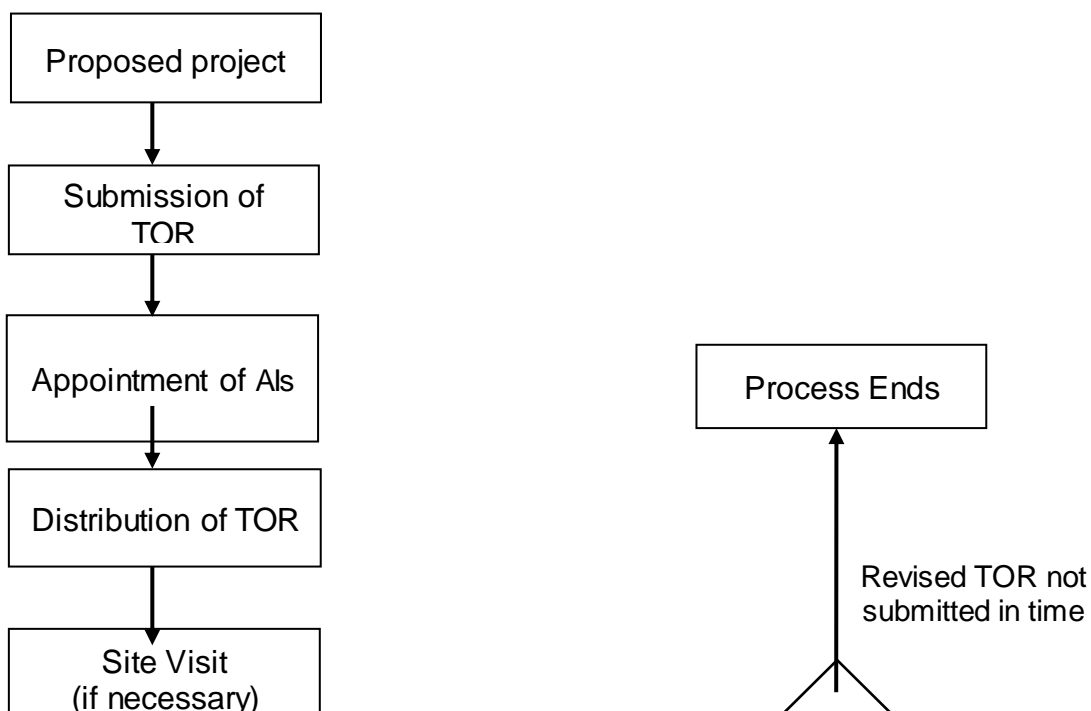
The TOR review involving parties outside of the DOE shall be done either through a Terms of Reference Adequacy Check (TORAC) meeting or by submission of

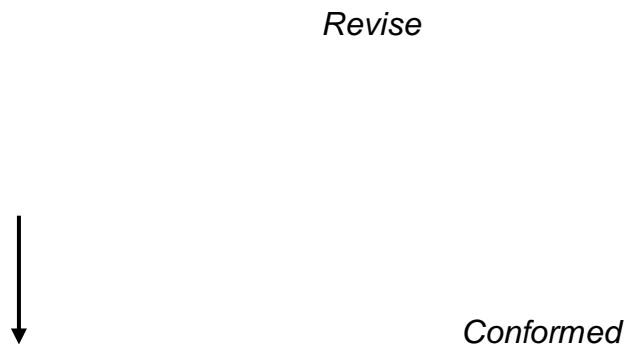
comments through mail correspondence.

Non-Governmental Organizations (NGOs) may also be invited to the TORAC meeting (or requested comments through mail) as general representatives or as Appointed Individuals (AIs). The AIs are individuals who have vast technical experiences in the relevant areas related to the proposed project, which may include potential project environmental impacts, impact study methodologies, and applicable pollution prevention and mitigation measures. The same personnel (i.e. TRC members and AIs) will also serve as the committee for reviewing the EIA Reports.

The adequacy of the scoping coverage and the TOR formulated will be decided in a Terms of Reference Adequacy Check (TORAC) meeting which will be chaired by the State Director of the DOE. The TORAC meeting members comprise the TRC members, and may include AIs and GAs, as well as NGOs as deemed appropriate. At this meeting, the TOR may be accepted or agreed upon or it may require a revision.

Figure 4.1 shows the procedural steps for submission of TOR.





**NOTE:**  
Process ends when  
Revised TOR is not  
submitted within timeframe  
by the Project Proponent

The TOR review process involves the following:

**Figure 4.1: Procedural steps for assessment of EIA Report for First Schedule**

**Activities – TOR Adequacy Check Stage**

(i) The review process shall be completed within a period of 3 weeks (30 working days) and an additional of two weeks (10 working days) for submission of revised TOR.

(ii) A minimum of 3 hard copies and 1 softcopy (in PDF format) of the draft TOR shall be submitted to the DOE HQ. Additional copies are to be submitted whenever necessary. Through the Project Proponent, the TRC (DOE Headquarters) will distribute the Report

to the relevant government agencies (GAs) and appointed individuals (AIs) for the purpose of the TORAC meeting or submission of comments through mail correspondence.

- (iii) A visit to the project site by the DOE and appointed individuals (AIs) may be required, which shall be arranged by the Consultant through the TRC.
- (iv) The TORAC meeting will be conducted (as and when necessary), after the site visit normally within the third week from date of submission of the TOR to DOE. At this meeting, the proposed TOR will be presented by the Project Proponent and his Consultant to the TORAC meeting when deemed necessary. Otherwise the TOR review decision will be issued through mail correspondence.
- (v) The outcome of the TOR review may lead to:
  - (a) Acceptance of the TOR, provided:
    - The TOR is in line with the specific EIA guidelines (if available) and/or the contents of the TOR specified in **Appendix 8**.
    - Recommendations from the TORAC meeting members or mailed comments have been accepted or agreed upon.
  - (b) Revision of TOR, where:
    - The TOR is not in line with the specific EIA guidelines (if available) and/or the contents of the TOR specified in **Appendix 8**.
    - There is need to provide additional information to clarify any unresolved or outstanding matters arising during the review process. The additional scope shall be submitted at least two weeks before the processing time ends. If the

additional scope or revised TOR is not submitted within the time frame, the process will end and new submission is required if the relevant party is still interested.

#### **4.2.2 Terms of Reference for Activities Falling Under the Second Schedule**

For prescribed activities that fall under the Second Schedule, the EIA Consultant shall prepare an Environmental Scoping Information (ESI) that determines the proposed - Terms of Reference (TOR) for the EIA study and submit it to the DOE Headquarters for endorsement. The same procedure applies to a prescribed activity that traverses two or more states.

A site visit by the TRC members and appointed individuals may be required, which shall be arranged by the EIA Consultant.

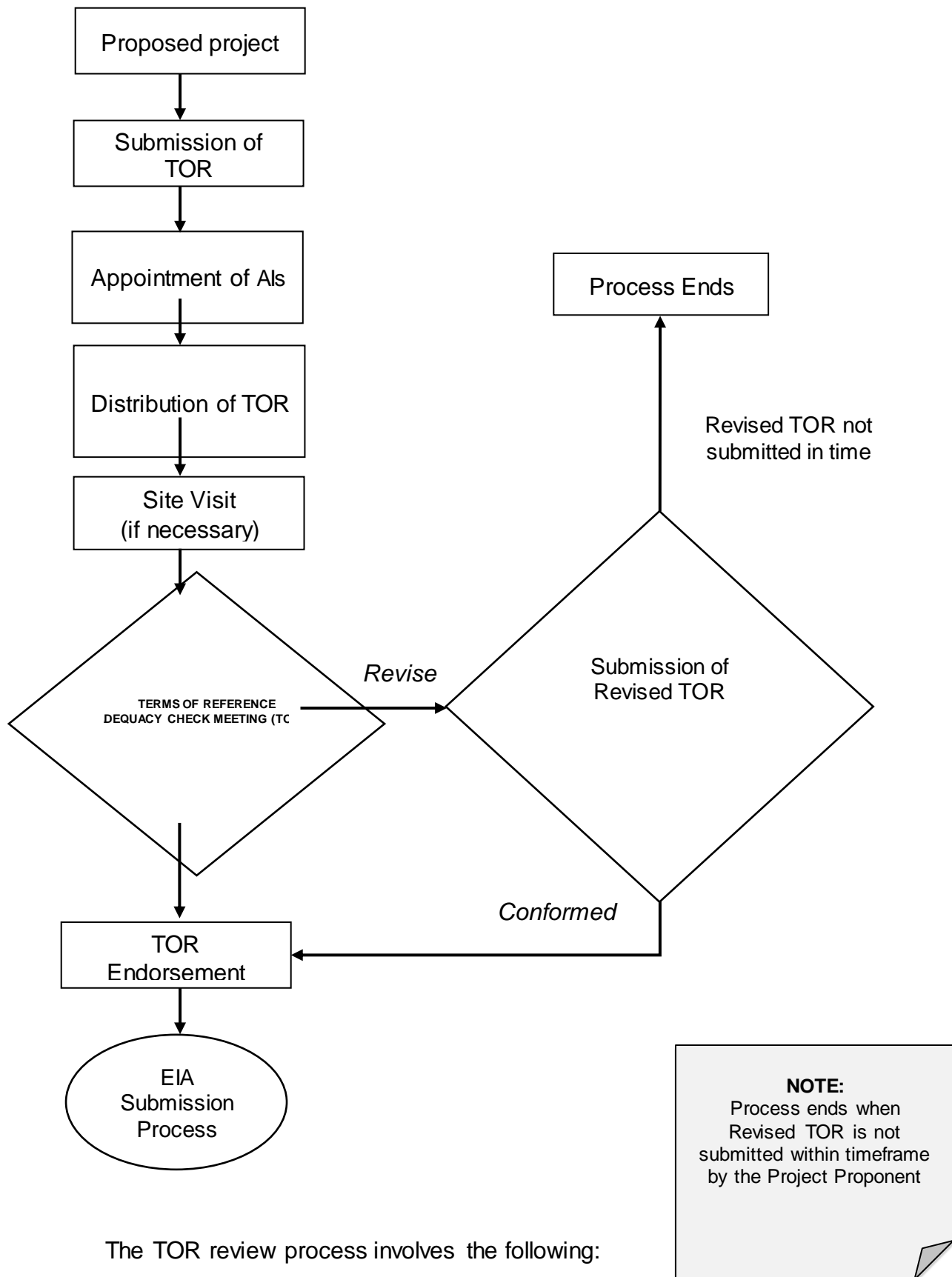
##### **4.2.2.1 Terms of References (TOR) Review Procedure**

The output of scoping exercise is the terms of reference (TOR). For projects that fall under the Second Schedule, the Project Proponent shall first submit to the DOE the TOR, in accordance with the format outlined in the specific EIA guidelines (if available) for endorsement. **Appendix 8** gives a general guidance on scoping and also the general contents of TOR which shall be followed in the TOR formulation.

The review of the TOR is carried out by the EIA Technical Review Committee (EIATRC) comprised of TRC members (a team of DOE officers at the Headquarters), individuals specifically appointed (AIs) on an ad hoc basis from within or outside of the DOE and representatives from government agencies (GAs). Non-Governmental Organizations (NGOs) may also be invited to the EIATRC meetings as general representatives or as Appointed Individuals (AIs).

The Als are individuals who have vast technical experiences in the relevant areas related to the proposed project, which may include potential project environmental impacts, impact study methodologies, and applicable pollution prevention and mitigation measures. The same personnel (i.e. TRC members and Als) will also serve as the committee for reviewing the EIA Reports. The adequacy of the scoping coverage and the TOR formulated will be decided in a Terms of Reference Adequacy Check (TORAC) meeting which will be chaired by the Director General of the DOE. The TORAC meeting members comprise the TRC members, Als and GAs, and may include NGOs. At this meeting, the TOR may be accepted or agreed upon or it may require a revision.

Figure 4.2 shows the procedural steps for submission of TOR.



**Figure 4.2: Procedural steps for assessment of EIA Report for Second Schedule Activities – TOR Adequacy Check Stage**



- (i) The review process will be completed within a period of 6 weeks (30 working days) and an additional of two weeks (10 working days) for submission of revised TOR.
- (i) A minimum of 3 hard copies and 1 softcopy (in PDF format) of the draft TOR shall be submitted to the DOE HQ. Additional copies are to be submitted whenever necessary. Through the Project Proponent, the TRC (DOE Headquarters) will distribute the Report to the relevant government agencies (GAs) and appointed individuals (AIs) for the purpose of the TORAC meeting.
- (ii) A visit to the project site by the DOE and appointed individuals (AIs) may be required, which shall be arranged by the Consultant through the TRC.
- (iii) The TORAC meeting will be conducted after the site visit, normally within the third week from date of submission of the TOR to DOE. At this meeting, the proposed TOR will be presented by the Project Proponent and his Consultant to the TORAC meeting when deemed necessary.
- (iv) The outcome of the TOR review meeting may lead to:
  - (a) Acceptance of the TOR, provided:
    - The TOR is in line with the specific EIA guidelines (if available) and/or the contents of the TOR specified in **Appendix 8**.
    - Recommendations from the TORAC meeting members have been accepted or agreed upon.
  - (b) Revision of TOR, where:

- The TOR is not in line with the specific EIA guidelines (if available) and/or the contents of the TOR specified in **Appendix 8**.
- There is need to provide additional information to clarify any unresolved or outstanding matters arising during the review process. The additional scope shall be submitted at least two weeks before the processing time ends. If the additional scope or revised TOR is not submitted within the time frame, the process will end and new submission is required if the relevant party is still interested.

### **4.3 Site Suitability Assessment**

The EIA Consultant shall perform site suitability assessment (SSA) by comparing the proposed project (its location and type of development) with the approved development plans such the National Physical Plan (NPP), structure plans, and Guidelines for the Siting and Zoning of Industry and Residential Areas (SZIRA) or any other guidelines prescribed by the Director General of Environment which are relevant to the proposed project. Comments on SSA shall be reported in the EIA Report. There may be a situation where the proposed project site or location may not contradict the approved development plans or any other guidelines prescribed by the DOE, but the site exhibits certain critical characteristics (for example, geomorphological features) that may present a particularly formidable constraint to the proposed project, due to the nature of the project. In such a situation, the Consultant shall thoroughly examine the suitability of the site and report it in the EIA Report.

### **4.4 Baseline Conditions**

A description of the existing environment where the proposed project is to be located (termed as “baseline conditions”) shall be presented. The important components of the affected environment shall be identified and described. The methods used and

investigation undertaken for this purpose shall be discussed and clearly indicated and shall be appropriate to the size and complexity of the assessment tasks. Uncertainties encountered in the studies shall also be indicated. Land use plans for the proposed project site shall be consulted and other data collected as necessary to assist in the determination of the baseline conditions.

#### **4.5 Impact Assessment Methodology**

Appropriate methodologies to assess the environmental impacts shall be identified for a particular EIA study and the rationale for the choice of methodologies shall be discussed.

For example, for air pollution impact studies, several mathematical models which have been developed by US Environmental Protection Agency (USEPA) are available, while some companies have developed their own models. Specific dispersion models such as the industrial source complex (ISC3) dispersion models developed by US Environmental Protection Agency may be used for calculation of the ground-level concentrations for point, area, flare and volume sources. The results of modeling exercise shall be presented in an appropriate form such as pollutant concentration with contour visualization on a map using ArcGIS as GIS platform. The meteorological data (wind speed, wind direction, stability class, ambient temperature, cloud base height, cloud cover, mixing height) used for model input shall be adequate and acceptable to be used for determining the highest short term and long term air quality impacts at air sensitive receptors. The modeling exercise shall capture the worst case scenarios to determine the worst case short term impacts.

Similarly, impact assessment studies may involve assessing water quality impacts, sediment transport, groundwater pollution, oil slick, and liquefied natural gas spill. All modelling studies shall undergo the stages of verification, calibration, and validation. The outputs of the modeling studies shall be presented in an easy to understand manner. The uncertainties in the models shall be discussed thoroughly.

#### **4.6 Specifications and Format of EIA Report**

It is the responsibility of the Project Proponent and the EIA consulting team (especially the EIA team leader) to ensure quality control of the EIA Report is performed before the EIA Report is submitted to the DOE. Internal quality check will ensure that all relevant and pertinent tasks have been performed satisfactorily and no important tasks left incomplete; the latter situation may lead to rejection of the Report or delay in decision making on the Report. The EIA Report which is ready for submission shall have taken into account the following general quality control elements:

- (a) To ensure the scoping of study has been sufficiently deliberated
- (b) To ensure statutory and administrative requirements are met
- (c) To ensure the EIA Report is organized and presented clearly and in a coherent manner
- (d) To ascertain the EIA Report is impartial
- (e) To assure the Report is able to answer key questions regarding the proposed project that are critical for decision making
- (f) To ensure the information about impacts has been organized in a concise, logical, coherent manner and is communicated in an intelligent fashion
- (g) To ensure the proposed project and its options are described in a comprehensive manner using satellite imagery, diagrams, plans or maps
- (h) To ensure the EIA Report is scientifically and technically sound from the perspective of:
  - (i) The reliability of data and coefficients (constants) used for modelling (predictive technique) where they must be accurate and based on local conditions where the proposed project is to be sited
  - (ii) The quantitative impact prediction, where the magnitude and significance of impacts must be predicted both with the mitigating measures in place and for the worst case scenario
- (i) To ensure that the Report identifies the follow-up works of post EIA stage

that are required, such as Environmental Management Plan (EMP), Environmental Monitoring Report (EMR) and Environmental Audit Report (EAR).

An example of arrangement of the front cover and various chapters of the EIA report shall follow the example given in **Appendix 9**.