

Technical Guidance Document for Terms of Reference (TOR)

April 2010

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List of Abbreviations

AD EHS Center	Abu Dhabi Environment, Health, and Safety Center
EAD	Environment Agency–Abu Dhabi
EHSIA	Environment, Health and Safety Impact Assessment
EHSMS	Environment, Health and Safety Management System
EIA	Environment Impact Assessment
SEA	Strategic Environmental Assessment
SRA	Sector Regulatory Authority
TOR	Terms of Reference

Definition of Terms

Area of Probable Impact—The extent of a physical area occupied by an environmental component that is likely to be impacted by at least one of the phases of the proposed project (i.e., construction, operation, and decommissioning activities and processes). The boundary of the area of probable impact is determined by measurements, previous studies, models, or best professional judgment and may vary by environmental component.

Assessment Area—The physical area that the consultant and proponent have identified for assessment of potential environmental impacts.

Construction—The time period corresponding to any event, process, or activity that occurs during the construction phase (e.g., building of site, buildings, processing units) of the proposed project. This phase terminates when the project goes into full operation or use.

Decommissioning—The time period corresponding to any event, process, or activity that occurs during the decommissioning phase (destruction or dismantling) of the proposed project. The decommissioning phase follows the operation phase.

Environmental Component—Attribute or constituent of the environment (i.e., Air Quality; Marine Water; Waste Management; Geology, Seismicity, Soil, and Groundwater; Marine Ecology; Terrestrial Ecology; Noise; Traffic; Socio-economic) that may be impacted by the proposed project.

Environmental Hazard—Any substance, physical effect, or condition with potential to harm people, property, or the environment.

Environmental Impact—Positive or negative impact that occurs to an environmental component as a result of the proposed project. This impact can be directly or indirectly caused by the project's different phases (i.e., construction, operation, and decommissioning).

Hazard—Same as *Environmental Hazard*.

Hazardous Waste—Waste that poses potential harm to human health and the environment.

Operation—The time period corresponding to any event, process, or activity that occurs during the operation phase (fully functioning) of the proposed project (operation phase follows the construction phase, and then terminates when the project goes into the decommissioning phase).

Project Area—The physical area within which all phases (i.e., construction, operation, and decommissioning), processes, and activities of the proposed project will take place (boundary of project area is defined by titled property boundary). The project area is equivalent to the project site.

Project Site—Same as *Project Area*.

Proponent—The developer, permit applicant, company, or agency associated with the proposed project.

Residual Impact—A potential environmental impact that is associated with the proposed project that is not addressed as part of the recommended mitigation measures (i.e., is not mitigated as part of the proposed project).

Solid Waste—Rubbish, debris, garbage, and other discarded solid materials resulting from the project that are not classified as hazardous waste.

Purpose of This Guidance Document

This document outlines the requirements for developing a Terms of Reference (TOR) in Abu Dhabi Emirate for review and evaluation by the Environment Agency–Abu Dhabi (EAD), which is the Competent Authority in the environmental field.

Section I. Background Information

Section I provides an overview of a TOR and the role it plays within EAD’s protocol for addressing and mitigating environmental impacts.

Definition of a TOR

A TOR is a document that, within the context of the federal laws of Abu Dhabi Emirate and the jurisdiction of EAD, serves as a planning tool to guide the assessment and evaluation of the baseline condition of the environment, environmental impacts, and potential mitigation efforts associated with a proposed project within Abu Dhabi Emirate. The TOR, as well as subsequent environmental reports, is intended to support the requirements of the Abu Dhabi Emirate Environment, Health and Safety Management System (EHSMS) Regulatory Framework (Decree 42 of 2009).

EHSMS-nominated entities that are required to submit EHSIA must submit a TOR prior to conducting the EHSIA. The health and safety elements of the EHSIA are defined within COP 07 of the EHSMS Regulatory Framework. The Sector Regulatory Authority (SRA), in conjunction with EAD and the Abu Dhabi Environment, Health, and Safety Center (AD EHS Center), will review, approve, and monitor the health and safety elements of the EHSIA.

For entities that are not currently nominated under the EHSMS Regulatory Framework, the SRA /AD EHS Center retains the right to request the TOR/EIA to consider health and safety issues. All requirements for health and safety are included within the AD EHSMS Regulatory Framework and will be incorporated into an EHSIA when requested.

Upon review of an environmental permit application, EAD will require the preparation and submission of a TOR when (1) an Environmental Impact Assessment (EIA) or (2) a Strategic Environmental Assessment (SEA) is required. A TOR must be completed, reviewed, revised (if necessary), and approved prior to conducting an EIA or SEA.

A TOR provides descriptions of the proposed project, the current environmental condition of the project site, additional baseline data and methods that must be conducted, the probable environmental impacts associated with the project, and potential mitigation approaches to reduce the negative impacts of the project on the environment at a level of detail that satisfies EAD.

Objective of a TOR

The main objective of a TOR is to determine the data collection and assessment needs of the EIA or SEA that will follow the TOR. This includes outlining and characterising existing baseline data, identifying data needs, and detailing the methods that will be used for data collection. To be effective, a TOR should, at a minimum, also identify the probable environmental impacts of the proposed project and define the elements required to fully assess these impacts. A TOR supports the goals of environmental protection and sustainable development; integrates environmental protection and economic decisions at the earliest stages of planning an activity; predicts environmental, social, and economic consequences of a proposed activity and assesses plans to mitigate any adverse impacts resulting from the proposed activity; and provides for the involvement of government and other agencies in the review of proposed activities.

The findings and recommendations of a TOR effort should be documented clearly and concisely and be devoid of unnecessary technical details. The usefulness of a TOR is measured by how well the

environmental baseline condition, probable environmental impacts, and potential approaches to mitigation are foreseen, evaluated, and addressed with adequate and straightforward measures and proposed actions. A TOR should not make recommendations, decisions, or conclusions about the appropriateness or approval of the proposed project.

Preparation and Submission of a TOR

The proponent of the proposed development or project is responsible for preparing and submitting a TOR. This document must be prepared by an EAD-approved and -registered consultant operating in Abu Dhabi Emirate. For development and infrastructure projects, a Class A consultant must prepare a TOR; for an industrial project, a Class A or Class B consultant may prepare a TOR. A current list of registered consultants can be obtained from EAD.

A TOR should include, but is not limited to, all of the details, content, and requirements outlined in Section II; the sections of a TOR may be expanded to include other aspects relevant to the proposed project. The proponent should use the checklist in **Table 1** to ensure that all components and criteria are included and adequately addressed within the TOR. A TOR should adhere to the framework presented in **Table 2** and described in Section II of this guidance document.

Table 1. Checklist for Chapter-By-Chapter Review of a TOR

Chapter 1—Executive Summary	
<input type="checkbox"/>	Adequate summary of the proposed project of a TOR
<input type="checkbox"/>	Adequate summary of the main findings of a TOR (current baseline environmental conditions and surveys that will be conducted to fill data gaps, probable environmental impacts and mitigation approaches to address environmental impacts, and advantages and disadvantages of the proposed project to society and the environment)
Chapter 2—Introduction	
<input type="checkbox"/>	The project title, general project description, and project rationale
<input type="checkbox"/>	Contact details and information about the project proponent and consultants
<input type="checkbox"/>	Description, including justification and chronology, of the development of a TOR
Chapter 3—Legal Framework and Standards	
<input type="checkbox"/>	Applicable laws, standards, protocols, and guidelines (e.g., local, regional, Abu Dhabi Emirate, international)
<input type="checkbox"/>	Identification of source(s) of pollutant and contaminant standard limits that will be adopted by a TOR (and EIA or SEA that will follow a TOR)
Chapter 4—Project Description	
<input type="checkbox"/>	Description of the need for the proposed project (economic and social benefits)
<input type="checkbox"/>	Maps and descriptions of the location and scale of the proposed project
<input type="checkbox"/>	Description of the proposed project and the staffing, wastes, chemicals, raw materials, pollutants, and disturbances associated with all phases (i.e., construction, operation, and decommissioning) of the project
<input type="checkbox"/>	The project status and schedule
Chapter 5—Environment, Impacts, and Mitigation	
<input type="checkbox"/>	Description of the current environmental conditions (baseline conditions) for each environmental component and the data sources
<input type="checkbox"/>	Results of gap analyses to identify missing baseline data for each environmental component
<input type="checkbox"/>	Description of additional surveys that will be conducted to fill data gaps regarding the baseline condition of each environmental component
<input type="checkbox"/>	Maps showing the spatial distribution of the various resources (baseline condition) and survey locations in the project area and area of probable impact (completed for each environmental component)
<input type="checkbox"/>	Description of the potential and probable environmental impacts associated with all phases of the proposed project (for both the project site and area of probable impact) for each environmental component
<input type="checkbox"/>	Documentation of the cause-and-effect relationships between planned project activities and environmental impact(s) for each environmental component

<input type="checkbox"/>	Acknowledgement and description of the potential cumulative environmental impacts for each environmental component
<input type="checkbox"/>	Descriptions of the potential approaches to mitigate the negative impacts of the proposed project on each environmental component
<input type="checkbox"/>	Descriptions of the sources (and steps that will be taken to identify sources), the accidental environmental impact risks, and the procedures to minimise these risks and potential impacts
Chapter 6—Project Alternatives	
<input type="checkbox"/>	Presentation of at least two acceptable alternatives to the current proposed project
<input type="checkbox"/>	Discussion of “no development” and “alternative location” options
<input type="checkbox"/>	Objective comparison of the alternatives and reasons for the selection of current proposed project
Annexes	
<input type="checkbox"/>	Annex 1—References
General	
<input type="checkbox"/>	Logical organisation of integrated and easy-to-review components, including annexes
<input type="checkbox"/>	Clarity (i.e., minimal technical terms, the adequate and appropriate use of graphics, text could be understood by non-specialists)
<input type="checkbox"/>	Include a list of abbreviations, definition of terms, and full references to sources of information
<input type="checkbox"/>	Include positive and negative impacts of the proposed project in the assessment (for objectivity)
<input type="checkbox"/>	Include a full suite of maps (using standard formatting) describing the project, project area, and the area of probable impact at different scales
<input type="checkbox"/>	Ensure that adequate information is provided, so that EAD can gain a clear understanding of the project, the environmental baseline assessments and surveys, potential environmental impacts, and mitigation options associated with the proposed project

Review of a TOR

EAD officials will review the submitted TOR to verify that all chapters are complete and that the TOR meets all of the stipulated requirements.

After EAD officials have reviewed and approved a TOR, the proponent may proceed with the next steps towards conducting an EIA or SEA and the issuance of a construction environmental permit.

Section II. TOR Format and Contents

Section II provides guidelines on the format and content of the TOR to be submitted by the proponent to EAD. The TOR should have a title page and a Table of Contents, with the Table of Contents adhering to the framework and layout outlined in Table 2.

Table 2. Standard Table of Contents for the TOR

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Chapter 3	Legal Framework and Standards	
Chapter 4	Project Description	4.1 Statement of Need 4.2 Project Location and Scale 4.3 Project and Activity Description 4.4 Project Status and Schedule

Chapter 5	Environment, Impacts, Mitigation, and Monitoring	5.1 Air Quality 5.1.1 Description of the Environment 5.1.2 Environmental Impact Prediction and Evaluation 5.1.3 Mitigation Measures * NOTE: Sections 5.2–5.10 should also include the subsections listed for 5.1, Air Quality 5.2 Marine Water 5.3 Waste Management 5.4 Geology, Seismicity, Soil, and Groundwater 5.5 Marine Ecology 5.6 Terrestrial Ecology 5.7 Noise 5.8 Traffic 5.9 Socio-economic 5.10 Other Environmental Component(s) 5.11 Risk Assessments
Chapter 6	Project Alternatives	
Annexes		
Annex 1	References	

The following text describes the content that should be included in each of the chapters and sections of the TOR.

List of Abbreviations

This section should include a list of abbreviations and acronyms used in the TOR. This list should be presented in a tabular format using a format similar to that on page iii of this guidance document.

Definitions of Terms

This section should include a list of terms used in the TOR and their definitions. This information should be presented in a format similar to that used on page iv of this guidance document.

List of Tables

This section should include a list of all the tables presented within the main body of the TOR and should indicate table numbers, table titles, and associated page numbers.

List of Figures

This section should include a list of all the figures presented within the main body of the TOR and should indicate figure numbers, figure titles, and associated page numbers.

Chapter 1—Executive Summary

Chapter 1 in the TOR should be a non-technical summary of the project description and should provide the main details regarding the environmental baseline data assessments and proposed surveys, environmental impacts and assessments, and mitigation recommendations. This chapter should be in English and Arabic and should include the following sections, which are discussed below:

- Project Description
- Summary of Findings.

1.1 Project Description

This section should contain a short description of the proposed project. This description should provide enough information for reviewers to understand the importance and scope of the proposed project.

1.2 Summary of Findings

This section should describe the assessments of availability of environmental baseline data, the likely environmental impacts associated with the proposed project, and the ways in which these impacts will be resolved through mitigation measures. This section should also address the following information and findings:

- The main outcomes of the environmental baseline data-gathering efforts and gap analyses
- A brief description of the environmental baseline surveys and the methodology that should be conducted to fill the data gaps and will be conducted as part of the EIA or SEA efforts
- The types and potential magnitudes of identified environmental impacts, including the main and cumulative environmental impacts, when possible
- The methods and approaches that will be used to evaluate additional environmental impacts
- The mitigation approach(es) that will be taken to address the environmental impacts
- The project advantages and disadvantages to the environment and society.

General conclusions or recommendations concerning the overall project should not be included in the Summary of Findings section.

Chapter 2—Introduction

Chapter 2 should include information, data, and details relevant to the proposed project of the TOR and be organised according to the following sections, which are discussed below:

- Project Title and Project Proponent
- TOR Consultants
- Project Description and Rationale
- Justification and Chronology for the Development of the TOR.

2.1 Project Title and Project Proponent

This section should include the name, address, telephone number, and fax number of the proponent's firm; the name and designation of the contact person who is responsible for the project; the project's title; and a listing and brief description of any other projects that the proponent has conducted, is currently conducting, or will conduct on the same site or adjacent to the current proposed project.

2.2 TOR Consultants

This section should include the name, address, telephone number, and fax number of the consultant's firm; the names of the team members from that consultant firm who prepared the TOR; and the field(s) of expertise of the consultant firm and the individual team members.

2.3 Project Description and Rationale

This section should include a description of the type and components of the proposed project (e.g., resort with a golf course, a hotel, a water park, an electric generator) and the location and size of the project area. This section should also include the purpose and rationale or justification (e.g., economic and/or social) for the proposed project.

2.4 Justification and Chronology for the Development of the TOR

This section should describe the justification for the selection of the TOR (versus a Preliminary Environmental Review) and the schedule for and steps taken to develop the TOR. The following information should be included in this section:

- A list of the sequence of events and associated dates for the selection and preparation of the TOR
- A list and description of the main outcomes of meetings that have already occurred or a list of intended meetings with stakeholders, governmental departments, and other groups potentially impacted by development in the area of the proposed project.

Chapter 3—Legal Framework and Standards

Chapter 3 should explain the legislative basis for the proposed project outlined in the TOR and should outline the following information:

- All relevant and applicable international laws, standards, and guidelines.
- All relevant and applicable regional laws, standards, and guidelines.
- All relevant and applicable Emirate and local laws, standards, and guidelines.
- International conventions, treaties, and protocols that may be relevant and applicable to the proposed project.
- The source document(s) of standard pollutant limits. This source document should be the most current, published EAD and federal standards document and address all pollutants and contaminants that will be produced during the activities and phases of the proposed project. Reference should be made to the applicable CoP within AD EHSMS Regulatory Framework, which define the current Standards and Guideline Values for air, water, land, and noise.

If Emirate or federal standards are not available, then the best-available source of standard limits, with a justification for the selection of these limits, should be detailed (multiple documents may be necessary).

Chapter 4—Project Description

Chapter 4 should include a general description of the proposed project with explanations for the need for the project and the location, scope, and activities associated with all phases of the project. This chapter should include the following sections, which are discussed below:

- Statement of Need
- Project Location and Scale
- Project and Activity Descriptions
- Project Status and Schedule.

4.1 Statement of Need

This section should include a statement of need for the proposed project and its compatibility with national development and environmental strategies. This statement should identify the clients and potential customers of the proposed project, demonstrate why the project should be located at the proposed site, and demonstrate both economic and social benefits of the project.

4.2 Project Location and Scale

This section should describe the exact location and scale of the proposed project and should include location maps and other relevant visual information. The following information should be included and described in this section:

- General site description, including the important features and site characteristics unique to the project site (e.g., natural vegetation areas, soils, geology, bodies of water).

- The planned layout for the proposed project, including all divisions, units and areas of activity within the project boundaries, addressing all phases (i.e., construction, operation, and decommissioning, if relevant) of the project. When possible, this information should be detailed with text, maps, photographs, and/or tables. If information is not available, estimates from similar projects should be used.
- Coordinates and geographic boundaries of the project area using EAD's *Geographic Information Systems—Data Management Standards*.
- Maps showing the following information:
 - Proposed project site and its immediate surroundings
 - Proposed project site within the context of the regional landscape
 - Location of the proposed project within Abu Dhabi Emirate
 - Proximity of the proposed project to national parks, protected areas, or other areas of known sensitivity or environmental importance.

4.3 Project and Activity Descriptions

This section should describe and provide details on the proposed project and the project activities associated with the different phases of the project. The information presented in this section should match the expected operations outlined in the project master plan and should include the following:

- Descriptions of the type, components, and units of the proposed project.
- Description of the processes and activities associated with the construction, operation, and decommissioning phases (if relevant) of the proposed project.
- Identification and general descriptions (e.g., locations, amounts) of any alterations that will be made to the project site. Such alterations include, but are not limited to, groundwater dewatering, dredging, and infilling activities, as well as land excavation and levelling and filling (cut and fill) activities.
- Description of the staff that will be at the project sites (e.g., management and administration, maintenance workers, construction workers) during the different phases (i.e., construction, operation, and decommissioning, if relevant) of the proposed project. This description should indicate the timing of their presence, the estimated numbers of people involved, and whether workers will be housed onsite or nearby.
- A list of the raw materials and chemicals that are likely to be used during the construction, operation, and decommissioning phases (if relevant) of the proposed project and their associated purposes and functions.
- A description of the different wastes (e.g., hazardous, solid, liquid) that will probably be generated by project activities conducted during the construction, operation, and decommissioning phases (if relevant) of the proposed project.
- A list and descriptions of all the origins of point source emissions and pollution (e.g., gases, liquids, solids, noise) that are likely to be produced by project activities conducted during the construction and operation phases of the proposed project.

4.4 Project Status and Schedule

This section should describe the current status of project implementation, the schedule of the proposed project, and the components and phases therein (if it is a multicomponent or a multiphased project). This section should also include a concise overview of the approval procedures and steps for the proposed project.

Chapter 5—Environment, Impacts, and Mitigation

Chapter 5 should provide a description of the environment, probable environmental impacts and potential mitigation approaches associated with the proposed project. More specifically, this chapter should describe the current environmental baseline conditions and baseline surveys that will be conducted to fill data gaps, the potential and probable impacts associated with the project, methods and approaches that will be used to determine other impacts, and plans for the mitigation measures that will be used to reduce the negative impacts of the proposed project on the environment. These descriptions should be created for all environmental components that occur within or near the project area and should cover all applicable phases of project execution (i.e., construction, operation, and decommissioning).

Sections 5.1 through 5.9 in Chapter 5 discuss the environmental components and the corresponding section number for each component as it should appear in the EIA report. The remaining sections within Chapter 5 (i.e., 5.11, Impacts, Mitigation, and Monitoring Summary; 5.12, Risk Assessment; and 5.13, Environmental Management Framework) are summary sections and address all the environmental components together.

5.1 to 5.10 Environmental Components

Table 2 and **Table 3** list each environmental component and its respective section number. If an environmental component is not covered in Sections 5.1–5.9, then it should be described and detailed in Section 5.10, Other Environmental Component(s). If an environmental component is not within or near the project area, and therefore will not be impacted by the proposed project, then this should be stated and justified within the corresponding section (5.1–5.9).

Table 3. Organisation and Corresponding Section Number for the Environmental Components That Should Be Addressed in Chapter 5

Section Number	Environmental Component
5.1	Air Quality
5.2	Marine Water
5.3	Waste Management
5.4	Geology, Seismicity, Soil, and Groundwater
5.5	Marine Ecology
5.6	Terrestrial Ecology
5.7	Noise
5.8	Traffic
5.9	Socio-economic
5.10	Other Environmental Component(s)

5.x.1 Description of the Environment

This section should describe the current status (baseline condition) of the environmental component, the results of gap analyses that were conducted to determine missing data, and the methods and baseline surveys that will be used to fill the data gaps and establish the baseline condition of the environmental component to the level of detail required of an EIA or SEA. There should be specific emphasis on areas and conditions that may be directly and indirectly affected by any of the proposed project activities conducted during the construction, operation, and decommissioning phases (if applicable). Baseline conditions that should be addressed include all existing physical, chemical, biological, and socio-economic conditions relevant to the environmental component. These conditions should be evaluated in the project area (i.e., site of proposed project) and in the area of probable impact (i.e., the extent of the area outside of the project area that is likely to be directly or indirectly impacted by the proposed project). Maps should be used to describe both the current baseline conditions and the baseline surveys that will be conducted.

For the TOR, the current condition of the environmental component should be described as fully as possible, based on the outcomes of a scoping study. This scoping study should consist of data gathering and a gap analysis. Data gathering should involve a desktop review of existing data. Suitable data sources include results from previous baseline condition assessments conducted on the project site and data from studies, literature, or reference documents that describe the environmental condition of a sufficiently comparable site. For data from such sources, the TOR should contain a detailed description of the source, the methods used to collect the data (to the level of detail contained within the source document) and an assessment of the validity of the data.

After existing baseline data have been collected, a gap analysis should be conducted to identify what data are missing and what baseline surveys should be performed. This section of the TOR should describe the method and results of the gap analysis and the baseline surveys that will be conducted and methodology that will be used to fully describe the current condition of the environmental component to the level of detail required by the EIA or SEA. The following information on the baseline surveys should be included in this section of the TOR:

- Parameters to be assessed
- Survey location and boundaries (with maps)
- The number of samples collected or sampling sites (with justification and methods used to determine number of sampling sites and sample site locations)
- Proposed location of sample collection sites (with maps and justification of selection)
- Duration and frequency of the survey (addressing daily, seasonal, and annual trends)
- Survey methodology and the basis for selecting the methodology (should be based on international standards)
- Quality assurance/quality control methods to be adopted during sample collection
- Methods that will be used for validating the data
- Justification that the selected survey system will accurately and comprehensively represent the condition of the environmental component.

When designing baseline surveys, the proponent and consultant should refer to the EAD-issued pamphlet titled *General Guidelines for Submission of Baseline Environmental Data*, along with the Technical guidelines within the EHSMS Regulatory Framework, and should adhere to the guidance regarding data collection, formatting, and reporting methods.

5.x.2 Environmental Impact Prediction and Evaluation

This section should address the potential and probable impacts of the proposed project on environmental components, to the level of detail allowed by the description of the environmental baseline condition outlined in Section 5.x.1. This section should also address the direct and indirect impacts of the proposed project in the project area and area of probable impact and describe the ways in which impacts will be assessed and determined for environmental components and attributes that are lacking baseline data. The following information should be included and described in this section:

- All of the potential and probable impacts of the proposed project and their respective sources, including a description of the cause-and-effect relationships between project activities and environmental impacts.
- If no impacts are anticipated, then this should be stated, along with a supporting justification for the conclusion (e.g., No impacts are anticipated to marine ecology because the facility will be located 50-km inland).
- Note any relevant and current standards that would apply to the impacts or sources of the impacts (outlined in standards documents presented in Chapter 3, Legal Framework and Standards)

- Identification of potential cumulative impacts. Cumulative impacts are impacts that result from the incremental impact of an action added to other actions. Therefore, the potential impacts of the proposed project should be considered in the context of participating in a cumulative impact from past, current, and foreseeable future industrial and non-industrial activities on the project site and within and near the area of probable impact.
- The methods, models, and approaches that will be used to determine environmental impacts in the EIA or SEA efforts that will follow this TOR.

5.x.3 Mitigation Measures

This section should describe the mitigation measures and approaches that could be used to address the negative impacts of the proposed project on the environmental component. All impacts presented in Section 5.x.2 should be addressed and should be described to the level of detail allowed by the descriptions of the impacts in Section 5.x.2.

5.11 Risk Assessments

This section should describe the steps that will be taken to identify the risks associated with impacts to the environment that could occur as a result of mishaps or failures during the construction, operation, and decommissioning phases (if relevant) of the proposed project. Examples of such occurrences are failure of material or equipment, procedures not being followed, unforeseen non-routine process upsets, and process equipment or processes not performing according to design parameters. Typical examples of impacts through mishaps include, but are not limited to, spills, leaks, fires, explosions, and process blow-downs.

If this TOR is preceding an EIA, then this section should also specifically address the steps that will be taken and the information that is necessary to develop a comprehensive Hazard and Effects Register and Control of Major Accident Hazards (COMAH) reports, if necessary. If accidental environmental impact risks associated with the proposed project are already known, then this section should contain more detailed information regarding: (1) environmental hazards that could be encountered during a phase, activity, or process associated with the proposed project; (2) the level of risk associated with each identified hazard; and (3) the control and recovery measures that will be implemented to minimise the risk of the occurrence and impact of each hazard. This information should be presented in enough detail to demonstrate that the proposed project has acknowledged the potential risks associated with the hazards to the environment and that facilities, activities, and processes of the project will be operated with measures and protocols to avoid or contain direct and indirect risks associated with the identified hazards.

Chapter 6—Project Alternatives

Chapter 6 should list and describe alternative approaches to components of the proposed project, particularly aspects of the project that are likely to have the largest impact on the environment, and provide examples of less impacting alternatives. The alternatives do not need to be described in detail in the TOR, but they will need to be fully explored in the EIA. Aspects that should be considered include the processes, technologies, size, implementation, impacts of the alternative approach on the environment, and cost. “No-development” and “alternative location” options should be fully discussed in the TOR, along with rationale for choosing to proceed with the project at the specified location.

Annexes

Annexes should include all information not immediately relevant to the main text of the TOR. At a minimum, the TOR should include an annex that lists references. Additional annexes should be added as needed.