ENVIRONMENTAL PERMIT APPLICATION GUIDELINES AT SOHAR PORT AND FREEZONE

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1. Definitions

Category (A) projects: Projects with high environmental impact that require the preparation of an Environmental Impact Assessment as part of the permit application process.

Category (B) projects: Projects with a medium environmental impact. If located within SOHAR Port, project owners must apply through the Oman Business Platform, after which the environmental permit will be issued automatically. If located within SOHAR Freezone, the project owner must prepare an Environmental Management Plan report, which will then be referred to SOHAR Environment Affairs Unit for review and approval.

Category (C) projects: Projects with a minor or limited environmental impact. Project owners must apply through the Oman Business Platform, after which the environmental permit will be issued automatically.

Environment Authority (EA): The competent authority responsible for SOHAR Port area.

Environmental Consultation Company: An environmental consulting company approved by the Environment Authority for SOHAR Port projects or by OPAZ for SOHAR Freezone projects. It is responsible for preparing the scoping study and the Environmental Impacts Assessment study.

Environmental Damage: Aby damage to the environment that directly or indirectly affects its properties, functions or reduces its capacity.

Environmental Impact Assessment (EIA): A scientific and systematic study conducted by an accredited consulting body, assessing whether the proposed project may have harmful effects or potential risks on the environment and society. The study also establishes a plan with necessary precautionary measures to avoid, mitigate, or control these impacts as appropriate.

Environmental Management Plan (EMP): A scientific and systematic study conducted by an accredited consulting body, outlining procedures and measures that project implementers must follow to prevent or mitigate negative environmental impacts to acceptable levels. This applies during the project's establishment, operation, or decommissioning phases.

Environmental Permit: The approval issued by the competent department or authority, authorizing the project owner to carry out one or more specific activities after ensuring compliance with environmental regulations. The permit includes general environmental conditions and specific technical conditions applicable to each project.

Oman Business Platform: A national platform under the Ministry of Commerce, Industry and Investment Promotion, through which project owners applies for environmental permits.

Public Authority for Special Economic Zones and Free Zones (OPAZ): The competent authority responsible for the SOHAR Freezone area.

Quantitative Risk Assessment (QRA): A study that quantifies a project's potential environmental and safety risks, assessing their likelihood, consequences, and spatial representation in terms of risk limits around potential hazard sources.

Scoping report: A preliminary conceptual study prepared by the consultant company for the project owner. It outlines the environmental areas to be studied in the EIA. This report must be approved before the EIA can proceed.

Screening: The process of evaluating the project's environmental impact level to determine which environmental permit application document is required.

The Competent Authority: The organization legally delegated with the authority, capacity, or power to approve, or reject applications, enforce regulations, and take legal action regarding environmental management within Sohar Port and Freezone.

The Owner: Any natural or juridical person who owns, operates, or manages a source, or area of work within SOHAR Port and Freezone area.

2. Abbreviations

BAT	:	Best Available Techniques
EA	:	Environment Authority
EIA	:	Environmental Impact Assessment
EMP	:	Environmental Management Plan
ESIA	:	Environmental and Social Impact Assessment
IFC	:	International Finance Corporation
IPPC	:	Integrated Pollution Prevention and Control
MD	:	Ministerial Decision
MTCIT	:	Ministry of Transport, Communications and Information Technology
MOU	:	Memorandum of Understanding
MAFWR	:	Ministry of Agriculture, Fisheries, and Water Resources
OPAZ	:	The Public Authority for Special Economic Zones and Free Zones
RD	:	Royal Decree
ROP	:	Royal Oman Police
Seveso III	:	Seveso iii (Directive 2012/18/Eu) On Control of Major Accident Hazards Involving Dangerous Substances
SFZ	:	SOHAR Freezone
SIPC	:	Sohar Industrial Port Company
SPF	:	SOHAR Port and Freezone

3. Introduction

The environmental permit is one of the main permits that the owner must obtain before starting project construction. Environmental Impact Assessment (EIA) studies and Environmental Management Plan (EMP) documents serve as permit application documentation to obtain the environmental permit for the projects. SOHAR Port and Freezone has developed this document for its tenants to clarify and simplify the steps and procedures for environmental permit requirements in compliance with the minimum standards set by the authorities.

In 2018, the Environment Authority (EA) signed a cooperation program with SOHAR Port and Freezone to implement a long-term program aimed at enhancing environmental management in the region, aligning it with international best practices.

This program focuses on strengthening the environmental monitoring system in the surrounding environment, particularly in areas with potential pollution sources. SOHAR Port and Freezone has been committed to implementing this approach in accordance with the Authority's requirements, under its direct supervision, and in coordination with companies operating within SOHAR Port and Freezone.

In 2020, the Public Authority for Special Economic Zones and Free Zones (OPAZ) was established under Royal Decree No.105/2020 to oversee Special Economic Zones and Free Zones, including SOHAR Freezone. Notably, Ministerial Decisions No.107/2023 from the EA and No. 17/2021 from OPAZ outline the procedures and mechanisms for obtaining environmental permits while ensuring that all operations in SOHAR Port and Freezone adhere to international best practices in environmental management, including continuous monitoring of the environmental impact of operations.

The authorities have assigned SOHAR Port and Freezone the responsibility of supervising the issuance of environmental permits. The Environmental Unit in SOHAR Port and Freezone will oversee all stages of the permit process, including reviewing permit application documents (e.g. scoping reports, ESIA, EIA, EMP). Once the permit documents are confirmed to meet Authority's standards and requirements, the owner will be allowed to submit the application via the online Oman Business Platform to obtain the final approval from the competent authority. While the owner submits the application, SOHAR Port and Freezone drafts the project's permit conditions and forwards them to the competent authority for the final approval.

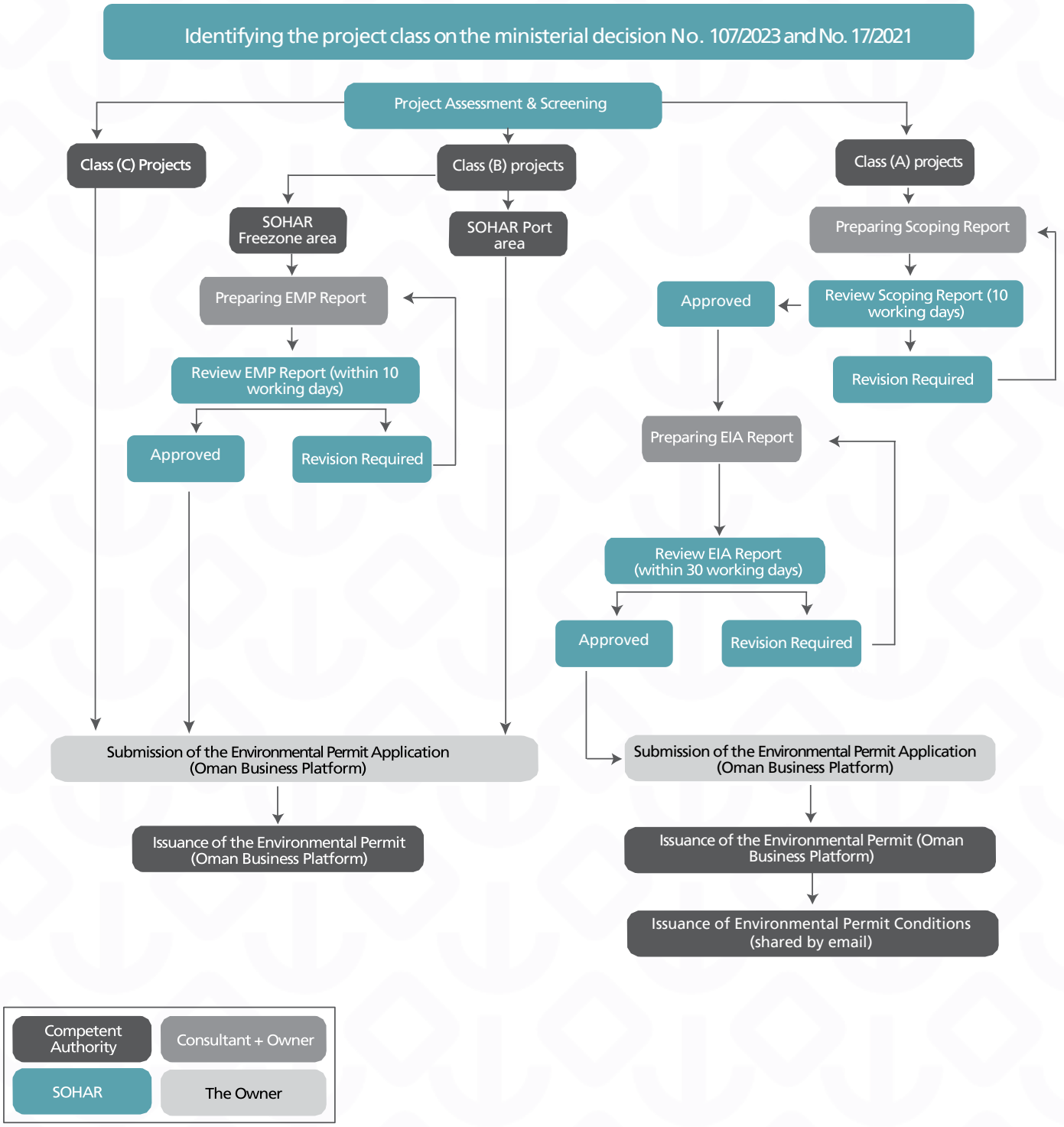


Figure 1: ENVIRONMENTAL PERMIT APPLICATION FLOW CHART

4. Project Assessment and Screening

The application will be reviewed, and its impacts will be identified using the screening process outlined below. Based on these impacts, the project will be classified into one of the three categories (A, B, or C).

4.1 Project screening and Procedures of Activities Reclassification

The screening process determines the environmental permit application documentation requirements. This process and classification procedures depend on several factors, including the nature of the project, production capacity, energy consumption, waste generation, and the sensitivity of the location. The final classification is subject to approval from the competent authority, which considers local policies, international best practices, and relevant references in its decision-making.

Specialists at the Environmental Unit in SOHAR will review and assess the project details and data using the following screening tools:

Sr.	Question	Yes/ No	Remarks
1	Will the geological and natural characteristics of the area be significantly altered and damaged?		
2	Is the project located in or near a residential area (less than 500 meters)?		
3	The amount of traffic in construction and operation stages: ☐ <250 moves = Limited ☐ 250 -750 move = Low ☐ >750 moves ☐ = considerable		
4	Does the project contain any continuous combustion sources?		
5	Are the project's noise levels high and persistent?		
6	Does the project involve storage tanks for petrochemical materials? ☐ Non ☐ <10 m3 ☐ > 10 m3		
7	Is the project likely to emit unpleasant and annoying odors?		
8	Industrial water usage (m^3/day): ☐ Limited/ Non ☐ <10,000 ☐ > 10,000		

Sr.	Question	Yes/ No	Remarks
9	Does the project produce hazardous waste (tons/year)? ☐ <10 Limited ☐ <100 Low ☐ >100 considerable		
10	Electric power consumption (MW): ☐ Low: 1 – 9 ☐ Middle: 10 – 30 ☐ High: 31 – 400 ☐ Very High: > 400		
11	Is it difficult for the project owner to mitigate or overcome the emergence of these emissions and impacts by using available technologies?		

Based on the results of the above questionnaire, the evaluator will determine the right appropriate document to be submitted as part of the environmental permit application.

5. Environmental Impact Study (EIA)

The Environmental Impact Assessment (EIA) is a permit application document that provides detailed information about the proposed project, including the process and techniques used, potential environmental impacts, and corresponding mitigation measures. It covers all project phases, from establishment and operation to the proposed site selection.

When assessing the environmental impact of the project, several aspects are considered, such as potential environmental pollution, including residual impact after applying the best available mitigation measures. Additionally, the assessment examines emissions into the environment and their effects on the wildlife surrounding the project.

5.2 Objective of Preparing the EIA

- Identify and assess the potential sources of environmental impacts protect the environment and conserve natural resources in accordance with sustainable development principles during both construction and operation.
- Predict environmental impacts using both quantitative and qualitative methods.
- Ensure that all the concerned parties are fully aware of the project's impact on the environment, society, and the economy through the EIA process.
- Identify and assess anticipated impact, evaluate their effects and propose appropriate mitigation measures
- Establish a framework for continuous environmental monitoring where necessary
- Recommend an Environmental Management Plan outlining definitive actions to prevent or reduce adverse impacts and enhance project sustainability.

6. Application for Environmental Permit for Category (A) Projects

The process of reviewing and evaluating the Environmental Impact Assessment (EIA) for projects is divided into two phases. First, the conceptual study (Scoping Study) report must be submitted for review and approval by SOHAR Port and Freezone. Once the scoping study is approved, the project owner, in collaboration with the consultant, can proceed to the second phase and prepare the EIA study, incorporating the observations, comments and recommendations provided by SOHAR's team on the Scoping Study.

6.1 Scoping Report Phase

The Scoping Study phase is critical stage in the permitting process, as it determines the environmental information that must be covered. It also facilitates effective project planning, enabling the selection of the most suitable processes and mitigation techniques. Additionally, this phase helps save time and costs for the investor by ensuring prior agreement on the environmental aspects to be addressed in the EIA study, allowing the assessment to focus on the project's key impacts. (Guidelines for preparing the Scoping Report are available in Appendix A of this document.)

It is important to note that without the submission and approval of the Scoping Report, the EIA will be automatically rejected.

6.1.1 Public Participation (If Necessary)

Public participation (including personnel and relevant stakeholders involved in the project) may be required by the project owner during the EIA preparation process. Public Participation may include:

- The project owner
- The consulting company
- Representatives from regulatory authorities
- Other related government and private sector entities
- Representatives of nearby residential complexes (e.g., the Wali, Sheikh or other community notables).
- Representatives from nearby companies or factories

6.1.2 Scoping Report Review

The Scoping Report must be submitted to SOHAR Port and Freezone's Environmental Team by the project owner or consultant. The following aspects will be taken into consideration during the assessment phase, in addition to the details outlined in Appendix A of this document:

- A comprehensive and detailed description of the project across all phases, covering production stages, raw materials, final products, by-products, project timeline and technical specifications of units involved.

- A clear and precise description of all applicable local and international laws and regulations relevant to the project.
- A description of potential environmental impacts that may result from the project and the methods of assessing these impacts.
- A well-structured and integrated plan for studying the baseline conditions of the project area and its surroundings (Baseline Sampling Plan).
- A list of potential significant impacts that require special attention in the EIA study.
- A list of critical environmental impacts arising from the project.
- A list of alternative solutions and mitigation measures that should be considered when designing the project and selecting appropriate techniques.
- A detailed profile of the EIA study preparation team, including curriculum vitae (CVs) of each team member along with their respective roles and responsibilities.
- The Scoping Report will be reviewed and approved within 10 working days).

6.2 Environmental Impact Assessment Report Phase

The Environmental Impact Assessment (EIA) study is a process to describe and evaluate the potential environmental impacts of a project, considering all related effects to environment and human health. The EIA study helps to establish the necessary controls measures and requirements for the project to maintain a clean and sustainable environment in and around SOHAR Port and Freezone.

The SOHAR Port and Freezone Environmental Unit reviews the study to ensure that the results comply with local and international laws and regulations Appendix B show the structure of the environmental impact assessment report. The study preparer may merge two or more elements mentioned in Appendix B under one section, if applicable, and may include additional study areas to provide further explanations of the impact assessments.

6.2.1 Air Modeling (If Applicable)

Projects that involve air emissions must assess their impact on ambient air quality using cumulative air dispersion modelling for point-source emissions. The modeling will be conducted by SOHAR Port and Freezone's Environmental Team under two scenarios:

- Scenario 1: Current operations of SOHAR Port and Freezone companies
- Scenario 2: Project operations + Current operations

Stationary source emissions data for the project will be requested immediately after the Scoping Report

approval. The consultant must complete the required input data for modeling (Appendix D). Once submitted, the SOHAR Port and Freezone Environmental Team will review the data, and if no comments are raised, they will proceed with the modeling process.

The Air Modeling Report will then be shared with the consultant for incorporation, assessment, and discussion in the EIA study.

6.2.2 Industrial Safety (if applicable)

Tenants whose activities pose an external risk of major credible accidents (as defined under SEVESO III or UK COMAH criteria) must submit the following along with the EIA study[1] .

A. A Quantitative Risk Assessment,
B. A Safety Report
C. Implementation of a Safety Management System as part of the permit application.

Guidelines from the UK Health and Safety Executive (HSE) (including those for land-use planning) must be followed[2].

6.2.3 Environmental Impact Assessment Review

The Environmental Impact Assessment Report must be submitted to SOHAR Port and Freezone's Environmental Team by the project owner or consultant. The following aspects will be considered during the EIA assessment phase:

- The consulting company must incorporate all observations, comments, and recommendations when preparing the EIA study.
- The consultant must include, assessing, and discuss the results of the Air Modeling Report in the EIA study.
- The report must provide a detailed study with a clear process description, emissions assessment, and impact analysis, ensuring concise and non-repetitive information while avoiding conflicting data or statements.
- The study must include a Best Available Techniques (BAT) assessment, outlining optimal environmental technologies and practices for the project.

[1] Reference is made to SPF R&R for detailed requirements.
[2] Further details are available at www.hse.gov.uk.

6.2.4 Environmental Impact Assessment Approval

The EIA approval will be issued through an official letter confirming compliance with this guideline. The project owner will then be required to complete the attached form (Appendix E) to expedite the permit application process and the issuance of permit conditions.

- For projects located in SOHAR Port: The owner must proceed with the application through the Oman Business Platform to obtain the environmental permit from the Environment Authority.
- For projects located in SOHAR Freezone: The SOHAR One Stop Shop (OSS) Team will assist the owner in completing the permit application and submitting it through the Oman Business Platform. The permit approval will be handled by the assigned parties in the Environment Unit, who will process the application and issue the Environmental permit.

The environmental permit conditions will be drafted and shared via email with the project owner. The SOHAR Environmental Team will then schedule a meeting with the owner to address any concern and ensure a clear understanding of the conditions. These conditions will include both:

1. Project-specific technical requirements
2. General environmental compliance requirements.

Once finalized, the permit conditions will be officially approved by SOHAR and shared with the owner for implementation.

7. Application for Environmental Permit for Category (B & C) Projects

7.1 Category (B) Projects

Category (B) Projects have a medium environmental impact and are classified into two categories based on their location as detailed in Figure-1.

7.1.1 Environmental Management Plan Report

Category (B) Projects located in Freezones and Special Economic Zones must prepare an Environmental Management Plan (EMP)[3]. It includes the following:

- outlines how the project will manage its environmental impact throughout its lifecycle.
- measures to prevent or reduce environmental impact, ensure regulatory compliance, and establish a clear framework for monitoring and reporting environmental performance.

After applying for the permit through Oman Business Platform and completing the Industrial License Application Form (Appendix E), the permit will be approved instantly through the platform. must be submitted to SOHAR Port and Freezone's Environmental Team by the project owner or consultant. The following aspects will be assessed during the EMP review process:

- The EMP must be prepared by an approved environmental consultant.
- The report must provide a clear project description and identify all project emissions and environmental discharges.
- The report must include mitigation measures and an environmental monitoring plan.

7.2 Application for Environmental Permit for Category (C) Projects

Category (C) projects have a low environmental impact. Regardless of whether the project is in the Port or Freezone area. The permit will be granted instantly on the Oman Business Platform.

[3] Refer to (Appendix C) for EMP report structure

8. Environmental Permit Renewal

For projects classified under Category A, the project owner must apply for permit renewal at least 30 days before the expiration date. The SOHAR Environmental Team will follow a similar renewal process for both Port and Freezone projects and will issue updated permit conditions after reviewing the existing permit, if necessary.

If there are major changes to the permit conditions, the project owner will be given a reasonable time to comply with the new obligations.

For Categories B and C, the renewal process will be conducted directly through the Oman Business Platform. However, for Freezone projects, the project owner must notify the SOHAR Environmental Team to ensure a smooth renewal process.

Appendix (A) Guidelines for the Scoping EIA Study Report

1. General Introduction of the Project

1.1 A detailed description of the project, including different production stages, raw materials, products, overhead costs, project timeline and technical specifications.

1.2 Project layout plan

1.3 Internal and external utilities & facilities associated with the project

2. Applicable Legislative Framework

The report should include all environmental laws, regulations and standards governing the project's performance, as follows:

2.1 Identification of national legislative articles related to the project.

2.2 Identification of relevant international environmental standards applicable to the project.

2.3 Identification of the applicable BAT Reference Documents (BREFs) for the project.

3. Project Description

3.1 Project Location and surrounding areas

3.2 Site map and description of the geographical area covered in the EIA study, including the affected areas.

3.3 Details description of the main process and the associated utility processes within the project

3.4 Comprehensive process description, from raw materials to final product.

3.5 Description of stakeholders affected by the project.

3.6 Description of existing projects in the surrounding area.

3.7 Preliminary evaluation of alternatives environmental technologies, comparing them in terms of efficiency, life span and cost, etc.

4. General Description of Potentially Affected Aspects

The report should assess potential environmental impacts during construction and operations and determine the Tier of impact. The study should cover, but not limited to the following applicable aspects:

4.1 Human health

4.2 Flora and fauna

4.3 Marine environment

4.4 Soil quality, water quality, and groundwater (soil, water & hydrology)

4.5 Air quality

4.6 Wastes and wastewater

4.7 Climate conditions

4.8 Radioactive materials

4.9 Noise pollution

4.10 Landscape and visual environment

4.11 Historic and cultural heritage

4.12 Impact on nearby industries and facilities.

5. Baseline Study: Current Environmental Conditions

The study must assess environmental conditions in relation to potential project impacts through necessary sampling, including:

5.1 Air Quality

- SOHAR Port and Freezone Air Quality Monitoring Network (AQMN) data is preferred as a baseline for air quality.
- For special projects, additional data may be required to comply with international standards.

- The Scoping Study must provide a detailed methodology, using near-reference and reference systems only.

5.2 Soil and Water Quality:

- SOHAR Port and Freezone Guidelines for Environmental Soil Surveys should be followed for soil and water assessments at the project site.

5.3 Noise Assessment

- When measuring the noise level, the sources of noise must be recorded
- A Class (A) noise measurement device with a valid certification must be used.
- The device must be capable of measuring Leq_{90} , Leq_{10} , LMin, L_{eq}, and Lmax as per the following:

Noise Monitoring Guidelines	
Samples' location	- The site must be open and free of obstacles that affect the sound levels. - Any sound source at the monitoring site must be recorded. - A stand must be used to install the device during monitoring/ measurement. - Wind speed must be considered when conducting measurements. Noise monitoring must be stopped if wind speed exceeds 5 meters per second. - The site must be at least 50 meters away from the nearest directsound source.
Number of samples	The number of samples depends on the sensitivity and location of the project and must be defined in the Scoping Report.
Period of taking samples	The monitoring period must be at least 15 minutes per location for each time period (day - evening - night)
Repetition	Monitoring must be conducted during all time periods (day, evening, night) for each location.
Remarks	- All observations must be recorded during monitoring, including noise sources and measurements for (Leq_{90} , Leq_{10} , LMin, L_{eq}, and Lmax).

5.4 Ecology survey:

5.4.1 Project Location and Surrounding Areas Survey:

Ecology survey	
Location and number of samples	- All sensitive locations within a 10 km diameter from the project site must be surveyed, or as required based on the project's sensitivity and location.
Biological Variables	Birds: - The distribution and abundance of bird species must be analyzed, considering the importance of habitats in the project location and the surrounding marine area, including: • Resting areas • Feeding areas • Nesting areas

Biological Variables	- Providing the data shows migration strategies used by migratory birds: • Waterfowl (flickering behavior; diurnal/ nocturnal) • Raptor / Lifters (Flickering behavior / Altitude; diurnal) • Daytime migration passages (flickering behavior) • Nighttime migration passages (flapping behavior) - Seabirds: • The distribution and abundance of birds in the project area and surrounding areas • Total number of birds recorded • Age and gender of migratory birds • Flight direction and altitude of migratory birds
Period of Taking Samples	- Based on sensitivity and location of the project and the time of the year.
Proposed Methods of Study	- Ship surveys - Aerial surveys - Aerial photography - Radar surveys - Visual surveys

Depending on the sensitivity, location and type of the project, the ecological survey be excluded from the EIA study.

5.5 Marine Environment:

5.51 Survey of the project site and the surrounding marine areas or the areas affected by it.

Marine survey	
Location and Number of Samples	All sensitive locations within 10 km diameter from the project site must be surveyed, or as required based on the project's sensitivity and location.
Biological Variables	The essential and preliminary information for the study of the marine environment requires a general description of the area, including information on: - Oceanography - Environmental characteristics - Social and economic value - Environmental pressures from ships pollution, including: • Noise pollution • Eutrophication • Toxic substances • Maritime traffic • Dredging and dumping • Other environmental pressures taken to protect the area
Abiotic Variables	The following non-biological factors are critical to investigate during the baseline study: - Seabed Characteristics: • Morphology • Depth measurements • type of sediment

Abiotic Variables	- Physical and chemical properties of the water layer (Refer to Ministerial Decision 159): • Salinity • Dissolved oxygen percentage • Water turbidity ratio • Temperature • Heavy elements
Abiotic Variables	- Hydrological characteristics: • Marine currents • Wave volatility • Sediment movement • Erosion patterns - Meteorological conditions - Taking a reference image of all sampling sites and the project site before preparing the site with its coordinates

Depending on the sensitivity, location, and type of project, the ecological survey may be excluded from the EIA study.

6. **Description of the nature and impact of the project**
   A description of the impact assessment methodology and the potential impacts of the project, specifying the duration, frequency, area of the impacts, and cumulative impacts (i.e. Direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative).
   A Clear impact matrix must be presented that shall be used in the impact assessment.
7. **Public participation (if necessary)**
   A description of the stakeholders that have an interest in the project or who may be potentially affected. Description of how they would be impacted (both positively and negatively), what interaction took place in the EIA study, and what measures will be implemented in the project to mitigate any potential impact.
8. **Framework for identifying mitigation measures and procedures including environmental monitoring**
   Description of how to address environmental impacts, how to mitigate them, and the alternatives which can be used to control project-related impacts.
9. **Methodology for preparing the environmental study**
   A description of:
   - The methodology used in preparing the environmental study, including the scope-in and scope-out aspects.
   - The time frame for conducting the environmental study, along with details of the EIA study team.

   The report must also:
   - Describe the method used to determine whether an impact is high, medium, or low.
   - Specify the time required to complete the study.
   - Highlight and justify the scope-in and scope-out sections for this EIA.
   - Provide details about the EIA study preparation team, including the curriculum vitae (CV) of each team member, along with their roles and responsibilities.

Appendix (B): Guidelines for the Preparation of Environmental Impact Studies

1. **Non-technical executive summary (English and Arabic)**
2. **Introduction**

2.1 Information about the project, owner, and consulting company.
2.2 Information about the project site and surrounding environment.
2.3 Brief description of the project type and size.
2.4 Importance of the project to the country and its development, also the synergies to other projects in the Oman thought raw materials, produces or by-product.
2.5 Determining the scope of work of the consultant in preparing the EIA.
2.6 Report structure.

3. **Institutional and Legislative Framework**

3.1 Rules and regulations of the competent government body and the project owner
3.2 Identification of national legislative environmental articles applicable to the project.
3.3 Identification of relevant international environmental legislation.
3.4 Identification of the best international environmental standards applicable to the project (including IPPC BAT).
3.5 Environmental agreements or treaties related to the project.
3.6 Any additional environmental requirements from relevant authorities.

4. **Project Description**

4.1 Description of the project type, size, production capacity and associated facilities and utilities.
4.2 Presentation of engineering flowsheets for the main process line and associate utilities.
4.3 Flowchart representation of all project facilities and units, including the interconnections between major process line and sub-processes.
4.4 Map detailing land division, technical and planning designs (including illustrations)
4.5 Detailed description of the operations of production, storage (raw materials and products), and import and export processes.
4.6 Description of the sources and components of raw materials used in the project
4.7 Estimation of resource consumption, including water, electricity, and other utilities.
4.8 General description of the potential environmental impacts of the project and their intensity.

5. **Environmental Releases**

5.1 Description of environmental releases during the **construction** phase, including air emissions, solid waste (hazardous and non-hazardous), liquid waste, noise.
5.2 Description of environmental releases during the **operational** phase, including air emissions, solid waste (hazardous and non-hazardous), liquid waste, noise
5.3 Mass flow diagram detailing project inputs, outputs, environmental releases, and residues, using a mass balance approach.

6. **Description and status of the environmental situation of the site (Environmental Baseline)**

6.1 Description of the project site and its surrounding environment.
6.2 Description of the biological environment, including flora, fauna, endangered species, environmentally sensitive areas such as reserves, and marine ecosystems.
6.3 Description of the physical and chemical environment, covering topographical, geology, surface and groundwater studies, climate and weather conditions, ambient air quality, existing pollution sources, noise levels, and the marine environment.
6.4 Identification of buffer zones of the project based on the impacts assessment.

6.5 Analysis of the socio-economic environment, including demographic, infrastructure, public health, historical and cultural heritage, and landscape features.
6.6 Review of neighboring projects and adjacent lands use.
6.7 Sampling methodology and analytical methods used in environmental assessment.
7. Analysis of Alternatives
7.1 Evaluation of alternative treatment units and technologies to minimize environmental impact.
7.2 Alternative scenarios for optimizing operational processes.
7.3 Best Available Techniques (BAT) Assessment, including a tabulated comparison of BAT references, applicable techniques, and project compliance status.
8. Environmental Impacts and Assessment
8.1 Description of the impact assessment methodology.
8.2 Comparison of project impacts with the existing environmental conditions.
8.3 Assessment of impact characteristics, including nature, type, duration, extent, frequency, and likelihood.
8.4 Assessment of environmental impacts across all construction and operational stages.
8.5 Cumulative air dispersion modelling for air quality impact assessment
8.6 Evaluation of abnormal operations and worst-case scenarios using impact matrices
8.7 Assessment of the environmental impact of periodic maintenance and associated emissions (using impact matrices where applicable)
8.8 Evaluation of the impact of the commissioning phase, including duration and expected emissions.
8.9 Cumulative impact assessment of the project and adjacent projects, if applicable.
Analysis of direct (short- and long-term), indirect, cumulative, and irreversible impacts.
9. Mitigation Measures
9.1 Description of mitigation techniques applied at all stages of construction and operation
9.2 Assessment of environmental impact reductions following mitigation (residual impacts).
9.3 Recommendations for optimal mitigation strategies to further minimize project impacts.
10. Climate Affairs
10.1 Sources of the project energy consumption
10.2 Preliminary assessment of greenhouse gas emissions
10.3 Inventory of greenhouse gas emissions and details of their calculations
10.4 Climate change impacts, mitigation, and adaptation with those impacts
10.5 Ozone - depleting substances uses
11. Environmental Management Plan
11.1 Environmental Management Plan during construction and operation phases
11.2 Plan for completion and dismantling of the project and closure of the site (if applicable)
11.3 Environmental monitoring plan for the construction and operation phases with the frequency.
12. Benchmarking
12.1 Comparison of project environmental impacts with similar projects globally, including strategies for impact reduction and mitigation measures (local, regional, and international case studies).
12.2 Benchmarking for the applicable environmental regulations for similar projects at local, regional, and international levels.
13. Recommendations
Consultant's recommendations for the project owner, including alternative impact reduction strategies and emissions control measures.
14. Conclusion

Appendix (C): Guidelines for the Preparation of Environmental Management Plan

1. Introduction

1.1 Information about the project, owner, and consulting company.
1.2 Details about the project site and surrounding environment.
1.3 Brief description of the project type and size.
1.4 Significance of the project for national development, including synergies with other projects in Oman through raw materials, products or by-product.

2. Institutional and Legislative Framework

2.1 Rules and regulations of the competent government authority and the owner of the Project
2.2 Identification of national environmental legislation applicable to the project
2.3 Any additional environmental requirements from relevant authorities.

3. Project Description

3.1 Description of the project type, size, the production capacity, and associated facilities and utilities.
3.2 Presentation of engineering flowsheets for the main process line and associate utilities of the project.
3.3 Flowchart representation of all project facilities and units, including the interconnections between major process lines and sub-processes.
3.4 Map detailing land division, technical and planning designs (including illustrations).
3.5 Detailed description of production operations, storage (raw materials and products), and import/export processes.
3.6 Description of the sources and components of raw materials used in the project.
3.7 Estimation of resource consumption, including water, electricity, and other utilities.

4. Environmental Releases

4.1 General description of the potential impacts of the project and their intensity.
4.2 Description of environmental releases during the construction phase, including air emissions, solid waste (hazardous and non-hazardous), liquid waste, and noise.
4.3 Description of environmental releases during the operational phase, including air emissions, solid waste (hazardous and non-hazardous), liquid waste, and noise.
4.4 Mass flow diagram detailing project inputs, outputs, environmental releases, and residues, using a mass balance approach.

5. Mitigation Measures

5.1 Description of mitigation techniques applied at all stages of construction and operation.
5.2 Recommendations for optimal mitigation strategies to further minimize project impacts.

6 Environmental Management Plan

6.1 Environmental Management Plan during construction and operation phases.
6.2 Plan for project decommissioning, dismantling, and site closure (if applicable)
6.3 Environmental monitoring plan, including frequency and methodology for construction and operation phases.

7 Monitoring and Reporting

7.1 Regular environmental monitoring protocols (e.g., air and water quality assessments)
7.2 Reporting mechanisms for compliance and performance reviews.

8 Conclusion

Appendix (D): Air Modeling Input Data Form

Scenario 1: Normal Operation

Sources ID	Latitude	Longitude	Based elevation (m)	Stack Height (m)	Gas exit temp (°C)	Gas exit Velocity (m/s)	Flow rate (m3/s)	Stack diameter (m)	Emission rate (g/s)						
									NOX	SO2	H2S	CO	PM	UHC	Others Specify

Scenario 2: Start up (abnormal)

Sources ID	Latitude	Longitude	Based elevation (m)	Stack Height (m)	Gas exit temp (°C)	Gas exit Velocity (m/s)	Flow rate (m3/s)	Stack diameter (m)	Emission rate (g/s)						
									NO_x	SO_2	H_2S	CO	PM	UHC	Others Specify

Appendix (E): Industrial License Application Form

Sultanate of Oman
Ministry of Commerce & Industry
Directorate General of Industry
Secretariat of Industrial Register

سـلطنة عمـــان
وزارة التجـــارة والصنـــاعة
المديرية العامة للصناعة
أمانة السجل الصناعي



طلب ترخيص صناعي(جديد)

Industrial License Application (new)

وفقا للمرسوم السلطاني رقم 2008/61

بإصدار قانون (نظام) التنظيم الصناعي الموحد لدول مجلس التعاون لدول الخليج العربية
و لائحته التنفيذية

According to Royal Decree No 61/2008
Issuing Low (system) of unified Industrial Organization for Gulf cooperation Council and it's Executive Regulations

المستندات والشروط المطلوبة:

1. تعبئة نموذج الطلب بكافة البيانات والمعلومات المطلوبة.
2. التوقيع على الطلب من قبل صاحب المشروع او وكيله المفوض
3. كروكي قطعة الأرض أو موافقة الجهه المعنية بتوفير الارض.

سلطان

سلطان

4. قائمة الآلات الداخلة في العملية التصنيعية مع تكلفة كل آلة.

Documents Requier:

1- Applicant must fill an application form for an Industrial License .

2- The applicant or his authorized representative must sign in the application form .

3- Crocky/Sketch of the Land or agreement from the concerned authority.

4- A list of the Equipment Required for Production with the price of each machine.

ملاحظة:

- تقدم الاستمارة بعد استكمالها بجميع بنودها على ان تكون واضحه

Notice :

- The form should be printed and complete.

أولا: بيانات عامة **First: General Information**

رقم السجل التجـاري: ..... Commercial Registration No. :

اسم الشركة : ..... Name Of EST.:

إسم المشروع الصناعي : ..... Name of Industrial Project:

- **موقع المشروع (Location) :**

المحافظة (Region) : ..... الولاية (State): .....

القريه(village):.....

- **العنوان (Address) :-**

ص . ب (P.O. Box): ..... الرمز البريدي (Post Code): .....

الهاتف (Tel) : ...../..... الفاكس (Fax) : .....

تحديد أسم شخص يكون ذو دراية فنية بانتاج وعمليات التصنيع :

Determining a person's name who has experience in production and manufacturing processes:

الاسم (name): ..... هاتف(Tel): .....

ثانيا: التكـلفة (بالريال العماني) **Sec.: Cost** (OMR)

1. Cost of plant and machinery		1. **تكلفة المعـدات**
2. Other Fixed Assets		2. **الأصول الثابتة (المباني , السيارات،..الخ)**
3. Working Capital		3. **رأس المال العـامل**
4. Estimated Total Investment(1+2+3)		4. **إجمالي التكاليف الاستثمارية المقدرة للمشروع** (3+2+1)

ثالثا: الأنشطة الصناعية — Third: Industrial Activities

م	النشاط الصنـاعي (Industrial Activity)	رمز التصنيف (ISIC Code)

*يمكن استشارة المختصين بالوزارة عن التصنيف المناسب للأنشطة ومنتجات المشروع

رابعـــا: المنتجات — Forth: Products

م	المنتج Product	رمز النظام المنسق HS. Code	الطاقة الإنتاجية التصميمية السنوية (بحسب الطاقة التصميمة للآلات) Annum Design Production Capacity (by Catalog Annex)	
			الكمية Quantity	الوحدة Unit

خامسا: مواد الخام والمواد الكيميائية الداخلة في عمليات التصنيع
Fifth: Raw Materials Requirements for Production (including paking matrial)

1) المواد الخام الداخلة في عمليات التصنيع (بما في ذلك مواد التغليف) :

1) Raw materials requirements for production (including packing material

الوحدة Unit	الكمية السنوية Quantity	المصدر Source	المادة الخام Raw Material	م

2) المواد الكيميائية المستخدمة في المشروع (يرفق نشرات بيانات السلامة الكيميائية):

2) Chemicals used in the Project (Attach chemical Material Safety Data Sheets:

الوحدة Unit	الكمية السنوية Quantity	التركيب الكيميائي Chemical Composition	اسم المادة Material Name	نوع المادة Material Type	م

3) نقل وتداول وتخزين المواد الخام والكيماويات ...الخ:

توضيح وسائل نقل وتداول وتخزين المواد الخام والكيماويات والوقود والمنتج النهائي

Describe Methods of Transportation, Handling and Storage of Raw Material, Chemicals, Fuel and Final Products

سادسا: مراحل التصنيع (وموضحا طريقة حساب الطاقة الانتاجية السنوية):

Sixth: Manufacturing Process (must show the annual production capacity caculations)

التاريخ المتوقع لبدء المشروع: / / 20 م

سابعا : التأثيرات البيئية

Seventh: Environmental Impacts

1) التأثيرات المتوقعة على الإنسان والمباني والهياكل الإصطناعية:

1) Expected Impacts on People, Buildings and Man-Made Structures:

2) التأثيرات المتوقعة على النباتات والحيوانات:

2) Expected Impacts on Plants and Animals:

3) التأثيرات المتوقعة على الأرض:

3)Expected Impacts on Land:

4) التأثيرات المتوقعة على المياه:

4) Expected Impacts on Water:

5) هل سيتم استخدام المواد المشعة أو أجهزة تحتوي على مواد مشعة :

5) Do You Intend to Use any Radioactive Materials:

6) المخلفات الصلبة (الخطرة والغير خطرة) ومياه الصرف والمياه السطحية:

6) Solid Waste (Hazardous / Non Hazardous), Waste Water and Surface Water:

م	مرحلة المشروع (اثناء عملية التشييد/عملية التشغيل) Project Stage (During construction/operation process)	* نوع التأثير * Impact Type	الأسم / المصدر Name / Source	الكمية Quantities	وسيلة التحكم/ المعالجة Methods of Treatment / Control	الموقع / اسلوب التصريف النهائي Final Disposal/ Method سلطان

* نوع التأثير: المخلفات الصلبة الخطيرة / المخلفات الصلبة غير الخطيرة/ مياه الصرف الصحي / المياه السطحية.

* Impact Type: (Hazardous solid waste/Non- Hazardous solid waste/wast water (sewage)/Surface water).

7) التأثيرات المتوقعة على جودة الهواء (إنبعاثات ملوثات الهواء من المصادر الحالية أو المستقبلية):

7) Expected Impacts on air Quality (Emissions from existing and future source of air pollution:

م	مرحلة المشروع (اثناء عملية التشييد/عملية التشغيل) Project Stage (During construction/operation process)	مصادر وطبيعة الإنبعاثات Sources and Nature of air Emission	الكمية Quantities	وسيلة التحكم/ المعالجة Methods of Treatment / Control	التصريف النهائي (وضح ارتفاع المدخنة وارتفاعها) Final Discharge (Indicate the proposed physical stack height and location)	رصد/نماذج تشتت الإنبعاثات Monitoring /Modeling of air Emission سلطان

8) مصادر ومستويات الضوضاء والتذبذب:

8) Identify and quantify Noise and Vibration Sources:

سلطان المستوى (بالديسيبيل) Level (dBA)	سلطان نوع الضوضاء والتذبذب Noise and Vibration Type	طبيعة المصدر (البيئة العامة/العمل) Nature Type (Public /Work environment)	م

9) تأثير المواد الكيميائية السامة والخطرة:

9) Toxic and Hazardous Materials :

خزانات ومرافق تخزين المرافق الكبيرة Bulk Storage Tanks and Facilities	الموقع / اسلوب التصريف سلطان النهائي Final Disposal/ Method	وسيلة التحكم/المعالجة Methods of Treatment / Control	الكمية Quantities	سلطان المصدر والطبيعة Source and Nature	م

10) المتفجرات (أن وجدت) :

10) Explosives (if any) :

سلطان فترة الاستخدام (بالشهر) Duration of Using (Month)	الكمية Quantities	الغرض من الاستخدام Purpose of Using	النوع Type	سلطان الاسم Source and Nature	م

10) اجراءات التخفيف وبرامج الرصد (الإجراءات التي تم تضمينها في المشروع لتقليل التأثيرات البيئية أثناء كافة المشروع) **:**

11) Describe Mitigation Measures and Monitoring Programs (Measure which have been incorporated into the project to reduce enviromental impact during all phases of project):

ثامنا : الطاقة اللازمة للتشغيل: Eighth: The Necessary Energy for

Type	Qty. الكـــمية	النـــوع
Electricity (KWH)		كهرباء (كيلووات/الساعة)
Gas (M^3/yaer)		غـــــاز (متر مكعب/السنة)
Diesel (Ltr /yaer)		ديـــــزل (لتر/السنة)
Other		أخرى

* must compliance of the unit * ضرورة التقيد بوحدة القياس

ثامنا: العمالة اللازمة Eighth: Manpower Requirements

سلطان التصنيف الوظيفي Jop Category			
إداري Administrative		سلطان فنـــي Technical	
غير عماني Non-Omani	عماني Omani	غير عماني Non-Omani	عماني Omani

☐عدد أيام العمل/السنة Days/ year	☐عدد الساعات/الوردية Hours /shift	☐عدد الورديات/اليوم Shifts/ day

تعـــهد
Commitment

أتعهـد أنا الموقـع أدنـاه : ..... وأحمل بطاقة شخصية رقم : ..... صحـة البيانات الواردة في هذه الاستمارة، وتحملي المسؤولية الكاملـة عـن أي مخالفـة لـذلك.

التوقيع ..... الختم: .....

I ..... the undersigned, and holder of ID Card number …… testify that the data contained in this application are true and correct and admit full responsibility if proven otherwise .

Signature ……. Stamp: .....

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