



Guidance Note

Environmental Review for Sohar Free Zone Companies

REP-131-10-DJ
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Definitions:

<i>EIA:</i>	Environmental Impact Assessment
<i>ER:</i>	Environmental Review
<i>EMP</i>	Environmental Management Plan
<i>SFZ:</i>	Sohar Free Zone
<i>NOL</i>	No objection letter
<i>IPPC</i>	Integrated Pollution Prevention and Control
<i>BAT</i>	Best Available Technique
<i>Bref</i>	BAT reference document
<i>ARWA</i>	Advanced Regulatory Wiki Application (produced by SEU)
<i>EMP</i>	Environmental Management Plan
<i>MECA</i>	Ministry of Environment and Climate Affairs
<i>SEU</i>	Sohar Environmental Unit

Background

The companies that will establish industrial activities in the Sohar Free Zone do need the environmental permits as per the requirements of the Ministry of Environment and Climate Affairs. The 'license to operate' is covered by the environmental permit. Depending on size and type of activity, companies are IPPC companies and/or EIA companies and/or Seveso II companies. IPPC companies do need to comply with the EU IPPC framework, Seveso II companies have to comply with the Seveso II Directive and EIA companies do need to submit an EIA.

For the SFZ an extensive framework EIA was made and a baseline on environmental impacts has been established. The availability of this baseline does relax the requirements for an EIA for individual companies that are established in the SFZ and an Environmental Review might be requested instead of an EIA.

More details on EIA, IPPC and Seveso II are provided in the Guidance Note EIA and the Guidance Note Safety.

SFZ Permit procedure

The environmental permit procedure for SFZ companies is as follows:

1. Company submits a request for a NOL to the SEU and provides basic administrative and technical information.



2. SEU will issue the NOL and clarifies if a company is and EIA and/or IPPC company. If so deemed necessary, SEU will advice on the topics and depth to be covered by the ER if substantial different from the generic requirements.
3. Company will request an Environmental Permit by submitting the green form and other documents (ER, EMP). The documentation submitted will be processed and results in a Preliminary Environmental Approval.
4. Company applies for a Final Environmental Permit and based on inspection results and compliance with requirements, the final permit will be issued.

Environmental Review framework for SFZ

The ER that is required for the environmental permit must cover (but not necessary limited to) the following issues:

<ul style="list-style-type: none"> • Process description (PFS) <ul style="list-style-type: none"> ○ basic process units ○ emission points ○ utilities ○ output 	<ul style="list-style-type: none"> • Environmental control equipment and instrumentation <ul style="list-style-type: none"> ○ Air filters, CEMS ○ Water treatment ○ Waste storage, hazwaste, non hazwaste generation ○ Noise reduction
<ul style="list-style-type: none"> • Usage of raw materials and process aids <ul style="list-style-type: none"> ○ On-site storage amounts ○ Controlled and not controlled chemicals amounts 	<ul style="list-style-type: none"> • Plant layout, process units, utilities, storage facilities of waste and chemicals, fence line, escape routes, access gates, hydrants etc
<ul style="list-style-type: none"> • Environmental Management Plan (as separate document) 	<ul style="list-style-type: none"> • Energy system <ul style="list-style-type: none"> ○ Type of energy supply and back-up ○ GTG's and boilers ○ LPG / diesel storage
<ul style="list-style-type: none"> • Air emissions, <ul style="list-style-type: none"> ○ flowrates ○ composition ○ temperature 	<ul style="list-style-type: none"> • Waste produced, type, tonnage, frequency
<ul style="list-style-type: none"> • Waste water management <ul style="list-style-type: none"> ○ Sewage disposal ○ Wastewater analysis and disposal ○ Water reuse systems 	<ul style="list-style-type: none"> • Noise emissions <ul style="list-style-type: none"> ○ Noise emissions and reduction
<ul style="list-style-type: none"> • Safety analysis <ul style="list-style-type: none"> ○ Maximum Credible Accident identification ○ Hazard analysis ○ Emergency response plan 	<ul style="list-style-type: none"> • Monitoring plan <ul style="list-style-type: none"> ○ Stack monitoring ○ Stack sampling, frequency and components) ○ Ambient monitoring

Estimating data

During plant design, the 'as is' environmental data are not available. Based on calculations, technical know-how and data from similar plants, a best guess can be made. These best guess estimates need to be replaced by actual data from measurements when the plant is operational.

Typical calculations can be used for energy conversion process and mass balances. Measurements can include usage of energy sources and raw materials/chemicals as well as stack sampling.