

Regulation No. (21) for the Year 2001
Regulation for the Protection of the Environment in the
Aqaba Special Economic Zone

Issued in Accordance with Articles (52) and (56) of the Aqaba Special Economic Zone
Law No. (32) for the Year 2000

Article (1)

This Regulation shall be known as the (Regulation for the Protection of the Environment in the Aqaba Special Economic Zone for the year 2001), and shall come into effect as of the date of its publication in the Official Gazette.

Definitions

Article (2)

The following words and phrases wherever mentioned in this Regulation shall have the meanings ascribed thereto hereunder unless the context indicates otherwise:

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| Law | : The Aqaba Special Economic Zone Law. |
| Zone | : The Aqaba Special Economic Zone. |
| Authority | : The Authority of the Zone. |
| Board | : The Board of Commissioners. |
| Chief Commissioner | : The Chairman of the Board. |
| Commissioner | : The Commissioner of Environmental Affairs. |
| Directorate | : The Environmental Regulation Directorate at the Authority. |
| Director | : The Director of the Directorate. |
| Environment | : The surrounding which includes all living and non-living creatures, and contains materials therein and is surrounded by air, water, soil, interactions thereof, as well as all facilities erected thereon by humans. |
| Project | : Any activity the execution of which requires setting up a plan which may have effects on the environment or elements of sustainable development. |
| Project Owner | : Any person in whose name the Project was submitted to the Authority to obtain environmental approval for executing the Project. |
| Impacts | : Are either direct or primary effects resulting from the Project and occurring at the same time and place, or indirect or secondary effects resulting from the Project but occurring at a subsequent time or in other place. |
| Significant Impact | : A substantial, or potentially substantial adverse change to the environment. |
| Facility | : The actual location of the Project and its activities subject to the Environmental Auditing, including the land, buildings, equipment, infrastructure services, |

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| | vessels' docks, carriers, pipelines and other permanent, semi-permanent and temporary extensions. |
| Operator | : The Facility's owner or the person in charge of management thereof. |
| Port | : Any port at the Gulf of Aqaba in the Zone. |
| Convention | : The International Convention for the Prevention of Pollution from Ships 73/78 (MARPOL 73/78), and any other international or regional convention in fields of protection of marine environment from pollution and compensation from pollution accidents to any of which the Kingdom accedes or becomes a party. |
| Ship | : Any vessel operating in the marine environment, including hydrofoil boat, air-cushion vehicle, submersible, floating craft and fixed or floating platform. |
| Discharge | : Any release from a ship of a harmful substance, including any escape, disposal, spilling, leaking, pumping, emptying or emitting. |
| Oil | : Crude petroleum, extracts and wastes therefrom, and all kinds of vegetable oil. |
| Oil Mixture | : Any mixture containing oil in quantities or percentages exceeding the limits specified in the accredited international standards. |
| Hazardous Substance | : Any substance which is classified as hazardous in accordance with enacted legislation and international classification thereof. |
| Hazardous Waste | : Remainings of various activities and processes which are deemed hazardous on the environment, health and public safety according to the provisions of enacted legislation in the Kingdom and international agreements to which the Kingdom is a party. Such include toxic, active, flammable and corrosive leftovers. |
| Sewage | : Any disposals in the form of liquid from houses, commercial stores, public and private institutions, restaurants or factories, including sewage from ships as stipulated in the Convention. |
| Garbage | : All kinds of waste generated during the normal operation of the ship and liable to be disposed of immediately or continuously. |
| Reception Facility | : Any preparations, equipment and basins used for the reception, sinking, treatment and disposal of oil, oil mixtures, garbage, ballast waters or sewage. |
| Special Area | : A sea area as defined in the Convention where, for technical reasons in relation to its oceanographical and ecological conditions and to the particular character to its traffic as defined in the Convention, the adoption of special mandatory methods for the prevention of sea pollution by oil is required. |

General Provisions

Article (3)

- A- Subject to the provisions of Paragraph (B) of this Article, it shall be prohibited to use seawaters in any form inflicting harm to the Environment or inter other water or materials thereto, or emit to the air gases from stable or movable resources, or dispose of or deal with garbage, noxious liquid substances, hazardous, radioactive and nucleic substances in the Zone.
- B- It may be permitted, through a permit by the Authority, to use seawaters for cooling or scientific analysis, or to emit gases from stable or movable resources, or dispose of garbage, noxious liquid substances, or deal with garbage and hazardous substances according to bases and criteria specified pursuant to instructions issued by the Board for this purpose, taking into account the provisions of pertinent legislation in force.

Article (4)

- A- It shall not be permitted to grant Operational Permits for any enterprise engaging in economic activities pertaining to disposal of solid wastes, garbage dumps, sewage stations and reception facilities for oil, unless after the Authority verifies that such enterprises comply with the specified environmental requirements, and upon obtaining the environmental clearance necessary for this purpose.
- B- The environmental provisions, conditions, criteria and procedures to establish sewage stations, garbage dumps and any Facility to treat garbage and oil reception facilities shall be determined in accordance with instructions issued by the Board for this purpose, as well as the criteria and bases to be followed by existing facilities.

Article (5)

- A- Subject to legal liability, it shall be prohibited to perform any of the following in the Zone:
- 1- Casting, disposing of or reusing waste waters unless according to adopted specifications and criteria.
 - 2- Casting contents of dump tanks unless in designated places.
 - 3- Casting any garbage or exhaust oils in other than specified locations.
 - 4- Casting any other substances decided by the Board.
- B- The Board may restrict any dealing with any substance with adverse effect on the Environment according to bases and conditions specified in accordance with the instructions issued for this purpose.

Article (6)

- A- Notwithstanding what is stated in this Regulation, the Authority may suspend the operation of any activity if it causes or threatens to cause environmental pollution in the Zone, or results in deterioration of the quality of water resources.
- B- The procedures and time-limits pertaining to extending notices to enterprises violating the provisions of enacted environmental legislation in the Zone, and the

provisions and procedures with regards to the suspension of the operation of such enterprises shall be specified in accordance with instructions issued by the Board for this purpose.

Article (7)

For the purposes of protecting the Environment, the Authority shall, in coordination with relevant entities, be responsible for regulating and monitoring establishment of wells in the Zone, excavation of water in resources thereof, drilling experimental, exploration and production wells, and granting necessary permits for drillers and drilling machinery undertaking such activities, in accordance with bases and conditions specified in instructions issued by the Board for this purpose.

Environmental Impact Assessment

Article (8)

Environmental Impact Assessment (EIA) shall mean any process which objective is to identify, examine and define the impacts of a Project on the Environment, its effects on, and how it is effected by the economic and the social aspects. Such process shall include the specification of means to limit the adverse impacts on the Environment so as to achieve sustainable development. The EIA process shall be undertaken during the planning, designing, executing and operating of a Project.

Article (9)

A- All Projects in the Zone including any services related thereto as specified in the relevant Annexes to this Regulation shall be subject to the provisions of this Regulation.

B- The Authority shall be entitled to compel the Project Owner to conduct EIA processes to any Project not mentioned in the Annexes referred to in Paragraph (A) of this Article if it deems it necessary as to the nature, location or effects resulting from such Project.

Article (10)

A- Each Project Owner shall submit to the Authority an application for acquiring environmental clearance to establish his Project in the Zone. Such application shall be accompanied with necessary information, data, maps, designs and specifications indicated in Annex (1) to this Regulation.

B- Where the Authority finds that the information submitted by the Project Owner are insufficient, it shall request from the Owner to submit further information within (5) working days, during which the application shall be pending the required information. If however the Authority decides that information submitted by the owner is sufficient, it shall notify him in writing that the application has been transferred to the Directorate for the screening opinion.

Article (11)

A- Upon completing the application with sufficient information as specified in Annex (1) to this Regulation, the Directorate shall, within (7) working days from the date of receiving the application, submit a recommendation to the Director whether or

not an EIA process is required. Such period may be extended for a period not exceeding (7) working days upon the Project Owner's written approval.

- B- The Director shall, within a period not exceeding (5) working days, and upon the recommendations submitted thereto by the Directorate, classify the Project in one of the following categories:
 - 1- Category (1): It shall include the Projects stated in Annex (2) to this Regulation which require comprehensive EIA.
 - 2- Category (2): It shall include Projects stated in Annex (3) to this Regulation, which require preliminary assessment, on the basis of which it shall be determined whether or not comprehensive EIA is needed.
 - 3- Category (3): It shall include Projects that do not require neither comprehensive nor preliminary EIA.
- C- Where the Director does not issue a decision within the period prescribed in Paragraph (B) of this Article, this shall be construed as an assertion of the need to conduct an EIA process.

Article (12)

Where the Project is classified in Category (1), the Directorate shall inform the owner in writing of the need to conduct Comprehensive EIA for his Project, provided that such notification contains grounds for adopting the decision.

Article (13)

- A- The Project Owner shall commence in preparing a preliminary written report on the scope covered by the EIA (scoping report). The Project Owner may also request to hold a meeting with the Directorate to agree on the content of the preliminary report, the general frame of the study, the scope to be covered, the nature of significant impacts expected to result from the Project and relevant persons affected therefrom.
- B- Upon preparing the preliminary report according to the provisions of Paragraph (A) of this Article, the Directorate shall invite relevant persons and public and private entities that may potentially be affected by the Project, to participate in the process of scoping environmental significant impacts.
- C- The Directorate and the Project Owner shall provide all available information about the Project and its surrounding Environment to all entities interested in the scoping process within an appropriate period before the date of the meeting, in order to facilitate such process.
- D- Upon convening the meeting mentioned in Paragraph (B) of this Article, the Project Owner shall submit to the Directorate a report including a summary of the deliberations of that meeting, the participating entities and an identification of significant effects. The Project Owner shall also submit Terms of Reference for the Environmental Impact Statement (EIS), which shall include the scope of the study, the names of the experts who will be preparing such, the required technical expertise as specified in Annex (7) to this Regulation and the estimated level of effort for preparing such.

E- The Directorate shall review the Terms of Reference within (5) working days from the date of its receipt, such period may be extended upon agreement with the Project Owner. The Director's shall issue a reasoned and objective decision. Where the Director does to reach a decision within the prescribed period, this shall be construed as a rejection of such Terms.

Article (14)

The Project Owner shall insure that the EIA study shall in particular include the following:

- A- A detailed description of the surrounding Environment and natural, cultural, economic and social aspects thereof as stated in Annex (1) to this Regulation.
- B- Potential environmental impacts, including chances of environmental enhancement.
- C- Significant impacts which shall be subject to evaluation and examination in appropriate accuracy and precision in order to adopt the appropriate decision thereon.
- D- A systematic environmental comparison of investment and technical alternatives of the proposed Project.
- E- Environmental mitigation and management plan and following up and monitoring plan and decommissioning and restoration plan.

Article (15)

- A- After the Director approves the Terms Of Reference, the Project Owner shall commence in preparing the draft Environmental Impact Statement (EIS). The Project Owner shall be responsible of the accuracy and adequacy of the draft EIS.
- B- The EIS shall reflect the key environmental issues associated with the Project under consideration as stated in Annex (6) to this Regulation. In particular, the EIS shall include the following matters:
 - 1- A description of the main features of the proposed Project which may cause significant adverse environmental impacts, including a report on the residues and wastes it may create.
 - 2- A description of the surrounding environment likely to be significantly affected by the proposed Project.
 - 3- An assessment of the potentially significant impacts of the proposed Project, including the extent of its compatibility with environmental policies, legislation and criteria relating thereto and land use according to the zoning plan set forth by the Board for the Zone.
 - 4- A description of any mitigation measures which are proposed or which have already been incorporated into the Project design, to reduce the Project's potentially harmful effects on the Environment.
 - 5- A determination of the main investment and technical alternatives of the proposed Project which have been investigated by the Project Owner in addition to the grounds for the preferred choice, taking into account their respective likely environmental effects.

- 6- A study and analysis of the anticipated cumulative any irreversible impact of the proposed Project.
 - 7- Environmental mitigation and management plan, which shall include financial estimates, maintenance programs, time schedules and required cadres and training thereof.
 - 8- A plan for overseeing the execution of the Project and monitoring its impacts.
- C- The Project Owner shall provide a summary of the EIS. Such summary shall be in writing, signed by the Project Owner and binding thereto. It shall be written in a language that allows third parties to comprehend the information and technical analysis contained therein. Such summary shall also illustrate the main results achieved in the statement.

Article (16)

- A- Upon receiving the draft EIS, the Directorate shall invite all persons and entities who participated in the scoping process according to Article (13) of this Regulation to attend a consultative meeting at which the EIS shall be reviewed and analyzed to insure its compliance with the provisions of this Regulation. The Directorate shall announce the date of the meeting (5) working days in advance, and shall provide all invitees with copies of the draft EIS prior to the meeting. The invitees may extend written comments on the EIS at least (48) hours prior to the meeting.
- B- The Director shall, within (5) working days from the date the consultative meeting or within (20) working days at most from the date of receiving the EIS, issue his decision regarding any of the following:
- 1- Approving the draft EIS as the final copy, if such document fulfills all requirements provided for in this Regulation.
 - 2- Asking the Project Owner to provide further information and analyses in areas which are deemed to be unfulfilling of the requirements of this Regulation. When the procedures relating to reviewing the draft are completed, the procedures necessary for such shall apply.

Article (17)

- A- Upon approving the draft EIS, the Director shall submit his recommendation to the Commissioner concerning one of the following:
- 1- Issuing the environmental clearance for the Project if the adverse environmental impacts resulting therefrom are properly managed in the EIA study including the mitigation and management plan. Such environmental clearance shall be valid for one year from the date of issuance.
 - 2- Not issuing the environmental clearance if it is evident that the establishment of the Project will result in unaccepted significant environmental impacts, or if the mitigation and management plan is not sufficient to manage such.
 - 3- Assigning experts to re-examine the EIS for final opinion thereon and at the expense of the Project Owner, as specified by the Board.
- B- The Commissioner shall issue his decision regarding any of the matters stipulated in Paragraph (A) of this Article within (7) working days from the date of receipt of the Director's recommendation.

- C- The Project's Operational Permit issued by the Authority must include all conditions and requirements to be fulfilled. The EIS and the mitigation and management plan shall constitute an integral part thereof.
- D- The Project's Operation Permit may not be granted unless after acquiring the environmental clearance according to the requirements and conditions stipulated in this Regulation and the instructions issued pursuant thereto. Commencing the construction and operation of a Project shall not be allowed unless after obtaining environmental clearance on that Project.

Article (18)

- A- Where the Project is classified in category (2), the Directorate shall request from the Project Owner to conduct a preliminary EIA to the Project as specified in Annex (4) to this Regulation. Such preliminary assessment shall take into account the following:
 - 1- The size or nature of the Project which may result in significant impacts on the environment.
 - 2- The location of the Project where it may be near to or within a particularly sensitive ecological system.
 - 3- The levels or nature of pollutants resulting from the Project, e.g. discharging hazardous pollutants. In such case, the Project Owner, in coordination with the Directorate, shall present an identification of the Project's environmental impacts in relation to the significance criteria as specified in Annex (5) to this Regulation.
- B- Where the preliminary EIA shows that such Project may have significant impacts on the environment, the Directorate shall have the right to ask the Project Owner to conduct a comprehensive EIA.
- C- Where the preliminary EIA shows that it is not possible for such Project to have significant adverse impacts on the environment, the Directorate shall notify the Project Owner that his Project does not require an EIA. In such case, this Project shall be environmentally cleared for the purposes of this Regulation and the instruction issued pursuant thereto.

Article (19)

Where the Project is classified in category (3), the Directorate shall notify the Project Owner that his Project does not require an EIA. In such case, this Project shall be environmentally cleared for the purposes of this Regulation and the instruction issued pursuant thereto.

Article (20)

The procedures stipulated in this Regulation regarding EIA process shall apply on any modification or expansion of an existing Project, which shall be deemed as a new Project.

Article (21)

The decision regarding EIA shall be publicized by placing it on the Authority's Notices Board for one month.

Article (22)

During any phase of the Project's construction, operation and decommissioning, the Directorate shall periodically monitor the extent of the Project Owner's compliance with all conditions and requirements stated in the environmental clearance issued therefrom.

Article (23)

At all stages in the EIA process, the Directorate shall, upon request, make available to the public all information and data submitted by the Project Owner regarding the Project. The Directorate may consider as confidential some of the submitted information or data in certain cases required by the public interest or the interest of the person submitting such.

Article (24)

- A- The Project Owner may object to the Commissioner's decision regarding the environmental clearance in accordance with to Paragraph (B) of Article (17) of this Regulation before the Board within (10) days as from the date of notifying such. In such case, the Board's decisions shall be final.
- B- The Board may appoint an independent committee of experts comprising at least 3 members of technical expertise in any field relating to the Project under consideration to give a final decision regarding the objection of the Project Owner.
- C- The provisions, procedures and periods regarding such objections shall be determined in instructions issued for this purpose.

Environmental Audit

Article (25)

Environmental Audit (EA) shall mean any tool adopted by the environmental management, which comprise an organized, documented, periodical and objective evaluation for a Project, or the executive body and equipment thereof, in order to protect the environment through:

- A- The management's monitoring and control of environmental practices.
- B- The Project's compliance with the Operator's plan adopted for conforming with regulatory and environmental requirements.

Article (26)

- A- The Operator shall conduct an Environmental Audit upon the Commissioner's request in any of the following cases:
 - 1- Upon receiving complaints from area residents or workers in the Facility about any harm or pollution resulting from the operations conducted therein.
 - 2- In case an accident related to the Facility's operations takes place within or outside the Facility, and such accident resulted or might result environmental harm.
 - 3- If monitoring results show that the project's activities are resulting in the release of pollutants into air, soil or water in excess of permitted levels according to adopted standards, or in amounts that cause direct harm to the Environment.

- 4- Where periodical inspection shows the necessity of conducting Environmental Audit.
 - 5- Where an Audit is required to monitor the Facility's compliance with any mitigation or management plans that have been established by the Operator in accordance with a previous Environmental Impact Assessment.
- B- The decision to conduct an Environmental Audit shall be made in writing and shall be reasoned and signed by the Commissioner.
- C- Within a period not exceeding (7) working days of receiving the Authority's decision for conducting an Environmental Audit, the Operator shall inform the Authority in writing of his approval to conduct an EA, or objection thereon.
- D- The Commissioner shall, within (3) working days, issue a decision for accepting or rejecting the objection. This decision shall include the reasons for acceptance or rejection and shall be notified to the Operator in writing.

Article (27)

- A- Upon approving the Environmental Audit request, the Operator shall select a highly competent environmental auditor to serve as the Environmental Audit team leader, provided that the team leader is selected with the Authority's approval.
- B- The EA team leader, in coordination with the Directorate, shall prepare the audit's Terms of Reference which shall specify the scope of the audit, in accordance with Paragraphs (C), (D) and (E) of this Article.
- C- The scope of an environmental audit shall take into account the nature and size of the operation involved, according to the Terms of Reference which shall, in particular, cover the following areas:
- 1- The Operator's environmental strategy applied in the audited Facility.
 - 2- The Operator's procedures pertaining to monitoring the Facility's compliance with relevant laws, regulations and instructions, and the Operator's standards within the Facility, and procedures for training the Facility's managers and employees on environmental protection and the disposal of pollutants and limiting use thereof, and storage and handling of hazardous substances, and the Facility's internal inspection and auditing, housekeeping and record-keeping procedures and submitting the information relating thereto.
 - 3- The Operator's emergency plans in the event of the occurrence of environmental accidents, provided that they include mechanisms for communicating with competent authorities and potentially affected members of the public.
 - 4- The suitability of environmental monitoring and control equipment at the Facility and the necessity for additional environmental monitoring or control equipment.
 - 5- Past or present incidents or activities pertaining to the Facility that have an adverse impact on the environment
 - 6- The procedures of the Authority or relevant bodies, or the complaints of local community pertaining to the Facility's environmental performance and the Operator's response thereon.

- D- Upon completion of the draft Terms of Reference, the audit team leader shall return it to the Directorate for review and comment.
- E- Upon the approval of the Commissioner on the Terms of Reference, the audit team leader shall proceed with the selection of members of the audit team.

Article (28)

The team leader shall, upon the approval of the Director, select the team members provided that they are competent for performing an EA according to technical criteria and requirements, and shall have professional experience to properly carry out the Terms of Reference and the Environmental Audit, and the skill and scientific and technical expertise in environmental policies and the Facility's operations. The audit team may include a representatives of the Operator.

Article (29)

- A- The Directorate and the Operator shall provide all necessary means for the team to efficiently carry out its responsibilities. The team leader shall be responsible for the proper performance of his team.
- B- The Operator of the audited Facility shall incur the costs of auditing process, and the costs of implementing the audit report's recommendations.

Article (30)

- A- The audit team leader shall prepare a draft audit report in a scientific precise and thorough manner and shall prepare such with objectivity.
- B- In order to avoid any misuse of information, data, or analysis contained in the audit report in a manner which may adversely affect the Operator's legitimate commercial interests, the number of auditing report copies shall be specified and circulation thereof shall be strictly limited.

Article (31)

- A- Following the review of the draft audit report prepared according to the provisions of Article (30) of this Regulation, the final audit report shall be prepared taking the comments and recommendations of the Operator and the Directorate into account.
- B- The final audit report shall be submitted to the Operator, and one copy thereof shall be filed with the Directorate for record-keeping and follow-up purposes.

Article (32)

- A- Following the submission of the final audit report, the Directorate shall, upon agreement with the Operator, prepare a plan for implementing the final audit report's recommendations and method of monitoring and following-up such implementation.
- B- The Operator shall provide the Authority with a monthly report of the procedures made to fulfill the recommendations of the final audit report implementation plan.

Article (33)

The Chief Commissioner shall be entitled to shut down the Facility or take a decision to consider the Operator in violation, as the case may be, in any of the following cases:

- A- Thirty days after notifying the Operator in writing that he failed to issue the Audit report within 6 months of the date of notifying the Operator that such report is due.
- B- Thirty days after the occurrence of the violation of the conditions and criteria provided for in the implementation plan of recommendations of the final audit report.

Article (34)

A- The Board shall specify pursuant to instructions issued for this purpose the record to be kept by Operator to illustrate the impact of the Facility's various activities on the Environment, the accredited form for this purpose, the time schedule within which the Facility shall keep such record, the data recorded therein and any other matters related thereto.

B- For purposes of verifying the accuracy of the record, the Authority shall be entitled to collect necessary samples and conduct necessary inspections and undertake any necessary tests in any Facility in order to verify the Facility's compliance with the objective criteria for protecting the Environment. Where the Authority finds a violation, it shall order the violating Operator to remove such violation within a period not exceeding (45) days from the date of notifying the Operator. Otherwise, the activity of the violator shall be suspended, and appropriate considerations shall be claimed to rectify such violations, in addition to penalties stipulated for in the Law.

Article (35)

All environmental audit procedures adopted according to the provisions of this Regulation, including the final audit report, shall be considered confidential, and shall not be disclosed subject to legal liability.

Air Protection

Article (36)

A- The location on which a Project is established shall be appropriate for the activity of the Facility to insure that air-polluting limits are not exceeded, provided that the total amount of pollution resulting from the collective Facilities located in one area is within the approved limits.

B- The conditions for approving the appropriateness of the sight and the limits allowed for air pollutants in the area in which the Facility is erected shall be specified in instructions issued by the Board for this purpose.

Article (37)

When conducting its activities, the Facility shall not emit or leak air pollutants exceeding the maximum limits allowed according to pertinent legislation and the instructions issued in accordance with the provisions of this Regulation.

Article (38)

Any person using equipment or machines which may result in exhausts from emitted gases shall not exceed the limits allowed according to pertinent legislation and the instructions issued in accordance with the provisions of this Regulation.

Article (39)

It shall be prohibited to throw, treat or incinerate garbage and solid wastes unless in the places specified thereto away from residential, industrial and agricultural areas and water channels. The basis, specifications, and the distances from such areas shall be specified pursuant to the instructions issued by the Board for this purpose.

Article (40)

A- All hospitals operating in the Zone shall dispose of its hazardous medical wastes resulting from their activities through special incendiaries with specifications insuring that pollutants are not emitted to the atmosphere in excess of the allowed limits in adopted specifications.

B- The Authority shall, in collaboration with relevant bodies, set up necessary arrangements to dispose of hazardous medical wastes resulting from hospitals, clinics, medical centers and laboratories operating in the Zone according to the provisions of Paragraph (A) of this Article.

Article (41)

It shall be prohibited to incinerate solid waste unless according to the conditions and requirements specified in the instructions issued by the Board for this purpose.

Article (42)

A- It shall be prohibited to use exhausted mineral oils for generating energy in a manner that would contravene within the limits allowed in the approved standards.

B- For purposes of implementing the provisions of Paragraph (A) of this Article, the relevant body reusing such oils must adopt necessary measures to insure the collection and transportation of such oils to their treating areas, provided that such body shall inform the Authority of such measures within the period prescribed by the Board.

Article (43)

When incinerating any type of fuel or derivatives therefrom for purposes of industry, generation of energy, constructions or any other purpose, the Operator shall undertake all precautions to minimize the quantity of pollutants in the combustion outcome. Such precautions, allowed limits thereof, means of controlling smoke, gases and fumes emitted from combustion processes shall be specified pursuant to instructions issued by the Board for this purpose.

Article (44)

All entities engaging in research, exploring, drilling, extracting, refining and manufacturing of crude oil shall comply with the basis and procedures stipulated in this Regulation and the instructions issued pursuant thereto.

Article (45)

It shall be prohibited to spray or use pesticides or any other chemical compounds for any purposes unless according to the basis and conditions specified in accordance with the instructions issued for this purpose so as not to directly or indirectly expose humans, animals, plants, water channels or other components of the Environment to the adverse effects of such pesticides or chemical compounds whether at the time of its spraying or use or at a later stage.

Article (46)

All persons engaging in activities of excavation, drilling, construction, demolishing or transportation of the resulting wastes or soils therefrom, shall undertake necessary precautions of storing, safe transporting to prevent their scattering or falling and unloading in specified places for such according to the instructions issued by the Board for this purpose.

Article (47)

A- Any person conducting any activities, in particular when operating machines and equipment, or using alarm systems and microphones, shall not exceed the limits allowed for loudness.

B- When granting any Operational Permit, the Authority shall take into account that the total frequencies of emitted noises from immovable sources in one area is within the allowed limits, and shall ensure that the Facility shall select machines and equipment appropriate to serve this purpose. The allowed limits for loudness and the period for exposure thereto shall be specified pursuant to instructions issued by the Board for this purpose.

Article (48)

The Operator shall offer appropriate environment to protect his employees from different operational hazardous whether physical or chemical or biological.

Article (49)

The Operator shall undertake necessary precautions and measures to insure that no air pollutants are emitted or leaked inside the working place unless within the limits allowed according to instructions issued by the Board for this purpose, whether such emissions or leakage resulted from carrying out the Facility's activity or as a result of machinery default. The Operator, in carrying out the vocational safety and health conditions, shall also provide necessary protection means for the workers therein, including choosing the appropriate machines, equipment, materials and fuels, provided that the periods of exposure to such pollutants are taken into account. The Operator shall also insure sufficient ventilation, building smokestacks and other means of air purification.

Article (50)

The maximum and minimum limits of heat and humidity in the working place, the duration of exposure thereto and the means of precautions therefrom shall be specified pursuant to instructions issued by the Board for this purpose. The Operator shall undertake necessary procedures to maintain heat and humidity degrees inside working places within the allowed maximum and minimum limits. Where it is necessary to work in degrees otherwise outside such ranges, the Operator shall provide appropriate precautionary means for workers such as special apparel and other means of protection.

Article (51)

All closed and semi-closed places should fulfill sufficient ventilation means in proportionate with the size, capacity and type of activity of such place, so as to insure renewal, purification and maintenance of appropriate degrees of such air.

Marine Environment Protection**Article (52)**

A- "Harmful Substance" shall mean any substance which, if introduced into the sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea and includes any substance subject to control in accordance with the enacted legislation in the Kingdom and the Convention.

B- "Noxious Liquid Substances" shall mean every noxious liquid substance stipulated in the Convention

Article (53)

A- All Ships frequenting the Port shall comply with the provisions of protecting marine environment set forth in this Regulation.

B- All Ships flying the Jordanian Flag shall comply with international standards pertaining to prevention of marine pollution.

Article (54)

The Authority shall assume in coordination with the relevant bodies all powers necessary to protect the marine and coastal environment and the maintenance thereof, including the following:

A- Preparing standards for marine waters' quality in Regional Waters and the criteria related to controlling pollutants from any source whether fixed or movable, resulting from all water, aero and terrestrial navigation activities which lead to marine environment pollution.

B- Monitoring the quality of marine waters and biological diversity and environmental inspection of such.

C- Establishing measurement stations to monitor marine environment and managing these stations.

- D- Determining areas for permitted water activities, such as fishing, water sports, scuba diving and under-water photography.
- E- Seeking aid from available national and regional resources for removing pollution.
- F- Designating appropriate means for estimating quantities of pollutants and their harm.
- G- Specifying environmentally fragile areas on the Jordanian Coast.
- H- Setting up an appropriate mechanism for collecting garbage, wastes, oils, oil mixtures, sewages from Ships and coastal facilities.
- I- Developing national emergency plan to combat marine pollution in the Gulf of Aqaba.
- J- Combating pollution on a regional level.
- K- Any other activities the Authority deems appropriate for protecting marine environment.

Article (55)

The Gulf of Aqaba is considered a Special Area according to Annex One of the Convention. As a result, the Authority shall take all the necessary procedures according to its provisions for the prevention, decrease and control of marine environment pollution from harmful substances. In doing so, the Authority shall follow the best available scientific methods in compliance with the provisions of the Convention.

Article (56)

It shall be prohibited for Ships, other transportation means and coastal facilities to undertake any of the following activities in the Regional Waters or the Port:

- A- Discharging or throwing oil and oil mixtures. Warships, naval auxiliaries or other governmental Ships not used for commercial objectives are excluded from the provisions of this Article, provided that such Ships undertake precautionary measures to insure the prevention of seawater oil pollution.
- B- Discharging any harmful substances or wastes which may result in damage to marine environment, public health or any other legitimate use of seawaters.
- C- Discharging harmful substances retained in containers.
- D- Throwing dead animals.
- E- Discharging sewage substances.
- F- Throwing garbage and litter.

Article (57)

No Ship frequenting the Port shall dispose of oils, oil mixtures, garbage, litters, sewage and ballast waters unless upon the Authority's approval, or after the Authority directs

such Ship to specific areas to dispose such materials, or upon undertaking any procedure that the Competent Body deems appropriate.

Article (58)

- A- Local and foreign companies and associations authorized to explore, extract or exploit marine petroleum fields and other marine natural resources, including oil transportation means shall be prohibited from discharging any pollutant resulting from drilling, exploring, wells' testing, producing, exporting or importing in the Regional Waters.
- B- All entities mentioned in Paragraph (A) of this Article must use safe methods that do not result in marine environment damages and treat whatever is discharged from waste and pollutants according to the latest available technical systems and in compliance with the terms stipulated in the Convention.
- C- For the purposes of this Regulation, oil transportation means shall be defined as: "any pipe or pipeline used to transport oil, and any other equipment used in loading, unloading or transporting fuel, or other necessary pumping equipment and tools".

Article (59)

Every Captain of a Ship frequenting Regional Waters, the Port or flying the Jordanian Flag, shall maintain in the Ship an oil record book in which the person in charge shall record all the processes relating to the oil as stipulated in the Convention and types thereof, particularly the following:

- A- Transferring, loading and unloading oil.
- B- Discharging oil or oil mixture to ensure safety of the Ship, its cargo, or the lives of those on it.
- C- Leakage of oil or oil mixture as a result of an accident along with the amount of oil and the mass of leakage.
- D- Discharging noxious liquid substances or ballast water or the tank washes.
- E- Processes of transferring oil within the Ship.
- F- Throwing the Ship's waters containing oils that gathered within the equipment outside the Ship and during its anchorage at the Port.

Article (60)

- A- The Ship's Captain shall promptly notify the Competent Body of any discharge of oil, oil mixture or any substance on the Ship which is a pollutant to the Regional Waters' water or marine environment in the Zone regardless of the reason that lies behind such discharge, provided that such notification shall set forth the circumstances and reasons for such discharge, and the procedures undertaken to cease such.
- B- The Ship's Captain and any person responsible for any oil transporting means and any marine environment polluting substances falling within the Port or the Regional Waters, as well as the company and body operating in the extraction of oil shall

promptly inform the Competent Body of any leakage incidents upon its occurrence, along with a statement of the accident's circumstances, the type of leaking material, the procedures taken to cease or limit the leakage and any other data stipulated in the Convention according to the instructions issued pursuant to this Regulation, and on the form prepared for this purpose.

- C- In case of a marine accident, the Competent Body shall undertake sufficient protection procedures to prevent the pollution of Regional Waters and marine environment on the expense of the Captain of the Ship.

Article (61)

All Ships frequenting the Aqaba Port shall be equipped with pollution minimizing equipment and shall acquire the relevant Certificates as stipulated in the international agreements and enacted legislation.

Article (62)

- A- The Authority shall collect the following monetary amounts from the person responsible for polluting the marine environment, as a charge for removing such items from the sea or the shore:
 - 1- JD 10.000 for every ton or fractions thereof not less than 50 Kg of discharged oil or oil mixtures.
 - 2- JD 500 for every ton or fractions thereof for thrown garbage, litter and dead animals.
 - 3- Any amount determined by the Board upon recommendation of the Commissioner for removing any pollutants not stipulated in Subparagraphs (1) and (2) of this Paragraph.
- B- The Authority shall have the right to collect monetary consideration for the resulting pollution. Such consideration shall be estimated by a Committee formed by the Board for this purpose, provided that such Committee takes into account the volume of such damage.
- C- Where the Ship causing pollution desires to rapidly depart the Port, the Authority may in such case collect from its Captain a bond to pay off the amounts listed in Paragraph (A) of this Article and the amount of the possible consideration as stipulated in Paragraph (B) of this Article. Such amounts shall be deposited in the special Account provided for in Article (65) of this Regulation.
- D- The Authority shall collect additional sum of money equivalent to 25% of the rate for removing damages to the environment or as estimated by the special Committee or the awarded sum, as the case may be.

Article (63)

The Authority shall be entitled to impound any Ship which refrains from paying the amounts provided for in Paragraph (C) of Article (60) and Article (62) of this Regulation. Such impoundment shall be ceased if the amounts due are paid, or an unconditional monetary bond has been submitted which the Authority accepts.

Article (64)

Subject to the provisions of the enacted Criminal Procedures Law, the Authority's employees and judicial officers shall have the right to go on board of any Ship and examine oil transporting means and marine-environment polluting materials to verify their compliance with the provisions of this Regulation and the instructions issued pursuant thereto.

Final Provisions

Article (65)

All sums incurred from implementing the provisions of this Regulation shall be allocated in a special Account in the Authority's Budget. Such sums shall be expended for purposes of protecting the Environment.

Article (66)

Conducting any of the actions listed below shall be considered as damaging the Environment, and shall form a violation to which the penalties stipulated in Paragraph (A) of Article (54) of the Law shall apply, as the case may be:

- A- Hunting or killing wild birds and animals, and possessing, transporting, selling, displaying for sale dead or live birds, or destroying nests or eggs of such birds.
- B- Discharging or throwing any untreated substances, garbage and untreated liquids, or any substances which may pollute the Environment.
- C- Violating the procedures of managing hazardous wastes, or establishing without licensing any establishments for treating hazardous wastes, or handling such without complying with their specific conditions and criteria or without adopting the precautions which prevents the Environment's damage.
- D- Establishing sewage stations without the Authority's approval.
- E- Establishing garbage dumpsters without the Authority's approval, or throwing any garbage in places other than the those specified for this purpose.
- F- Discharging or reusing sewage waters to the Environment, when the quality of such waters is not in compliance with adopted standards.
- G- Throwing sewage tankers' contents in other than the specified areas.
- H- Emitting or leaking air pollutants from a Facility in excess of allowed maximum limits.
- I- Using machinery and equipment emitting exhaust in excess of allowed limits.
- J- Throwing, treating or incinerating solid garbage and wastes in places other than the those specified for this purpose.
- K- Incinerating hazardous medical wastes by hospitals operating in the Zone without observing the conditions related thereto, or by using Incinerators other than the those allowed, or failing to comply with the arrangements necessary to transport such wastes resulting from hospitals, medical clinics, health centers and laboratories operating in the Zone in order to incinerate such.
- L- Incinerating or disposing of solid wastes randomly without complying with the provisions of the instructions issued by the Board for this purpose.
- M- Using exhausted mineral oils for generating energy in a manner that contravenes with the allowed limits specified in adopted standards.
- N- Spraying or using pesticides or any other chemical compounds for any purpose without complying with the basis and conditions specified in the instructions issued for this purpose.

- O- Transporting wastes or soils without undertaking the necessary precautions for storage and safe transportation thereof.
- P- Operating machines and equipment, or using alarm systems and microphones in excess of allowed limits for loudness.
- Q- Failing to offer appropriate environment to protect the Operator's employees from different vocational hazards whether physical or chemical or biological and the like.
- R- Failing to comply with the allowed degrees of heat and humidity in the working place, or to provide appropriate precautionary means for workers such as special apparel and other means of protection.
- S- Failing to fulfill sufficient ventilation means for closed and semi-closed places to insure renewal, purification and maintenance of appropriate degrees of such air.
- T- Picking, collecting or breaking corals by any person.
- U- The failure of the Ship's Captain to keep an oil record in the Ship, or the inconsistency of documentation in such record, or documenting false accident therein, or the captain's refraining from submitting the oil record to the officials of the Competent Body or from approving the excerpt of the Ship's oil balance when so requested by the Authority.
- V- Discharging any pollutant resulting from drilling, exploring, wells' testing, producing, exporting or importing.

Article (67)

Conducting any of the actions listed below shall be considered as substantially damaging the Environment, and shall form a violation to which the penalties stipulated in Paragraph (B) of Article (54) of the Law shall apply, as the case may be:

- A- Discharging or throwing oil, oil mixture, harmful or hazardous substances or wastes which results in damage to marine environment, public health or coral reefs.
- B- The refraining by the Ship's Captain from informing the Competent Body of any discharge of oil, oil mixture, or any substances in the Ship which is a pollutant to water or marine environment in the Regional Waters in the Zone regardless of the reason that lies behind such discharge.
- C- The refraining from informing the Competent Body of any leakage incidents upon its occurrence, by the Ship's Captain and any person responsible for any oil transporting means and any marine environment polluting substances falling within the Port or the Regional Waters, as well as the company and body operating in the extraction of oil.
- D- The Ship which frequents the Port disposing oils, oil mixtures, garbage, litters, sewage and ballast waters without the Authority's approval, or failing to move to the specific areas specified by the Authority to dispose of such materials.
- E- The Ship's breaking, damaging or harming coral reefs.
- F- Dealing with hazardous wastes without licensing which leads to harming the Environment or public health.
- G- Polluting groundwater with pollutants that prevents from immediate or future use of such water.

Article (68)

- A- The Authority shall, in return for issuing permits in accordance with this Regulation, collect the following fees:
 - 1- JD 1 for every 10.000 meters of cooling water which is returned to the sea, provided that such fee is not less than JD 3.000 and does not exceed JD 10.000.
 - 2- JD 0.1 for each Ton of gases containing Sulfur.

- 3- JD 0.1 for each Ton of gases containing Nitrogen.
- 4- JD 0.01 for each Ton of gases containing Carbon Monoxide.
- 5- JD 0.01 for each Ton of gases containing Fluorine.
- 6- JD 0.01 for each Ton of gases containing Phosphorous.
- 7- JD 0.01 for each Ton of gases containing dust.
- 8- JD 0.005 for each Ton of gases containing Carbon Dioxide.

B- The Authority shall also collect the following fees:

- 1- JD 0.05 for each Ton of vessels cargo shipped in and out of Aqaba.
- 2- Additional fee equivalent of (25%) of the sums collected to receive oils in the places designated therefore.

Article (69)

Prior to the enforcement of this Regulation, all existing enterprises shall reconcile their affairs with the provisions of this Regulation within (6) months of the date of its enforcement, renewable for the same period by a decision of the Board. Accordingly, such enterprises shall undertake to prepare a plan of the procedures to be adopted for this purpose, and that such enterprises shall pay any amounts stipulated in Article (68) of this Regulation.

Article (70)

The Board shall issue the necessary instructions to implement the provisions of this Regulation, including the following:

- A- The conditions to be met when supplying the Ships flying the Jordanian Flag with oil separating and pollution-minimizing equipment according to enacted international technical designs and condition, and regulating all matters related thereto.
- B- The provisions, procedures, bases and criteria relating to the following:
 - 1- Emitting gases to air from movable and immovable resources.
 - 2- Using seawaters for cooling and resending such to the sea.
 - 3- Reusing treated exhaust waters.
 - 4- Managing solid wastes and hazardous materials and wastes.
 - 5- Connecting Facilities that conduct an economic activity to the sewage network.
 - 6- Forming a committee for evaluating damages to the Environment, specifying its tasks and regulating its meetings.
 - 7- The Ships' discharging of sewage items and delivering garbage to waste-reception facilities.
- C- The fees collected by the Authority in exchange of the services it renders, including the following:
 - 1- Revising the Environmental Impact Statement and Environmental Auditing Reports.
 - 2- Medical and environmental check-ups of the working environment.
 - 3- Examining oils-separating and pollution-minimizing equipment, and permitting to establish such in the Aqaba Port.
 - 4- Using reception facilities and the conditions relating thereto.

Article (71)

The instructions issued in accordance with the provisions of this Regulation shall be published in the Official Gazette.

ANNEX 1
INFORMATION TO BE SUPPLIED BY THE PROJECT OWNER

- 1- Description of the Project, including the following:
 - The characteristics of the Project as a whole including land-used requirements during the site preparation, and construction, operational phases, and decommissioning of the Project and restoration of its site.
 - The main characteristics of production processes (e.g. nature and quantity of used materials).
 - An estimate, by type and quantity, of expected residues and emissions (e.g. water, air and soil pollution; noise; vibration; light; heat; radiation) resulting from the operation of the Project.
 - An estimate of the expected number of people, vehicles, equipment, and their movement during the various stages of the Project.
- 2- An outline of the main alternatives to the proposed Project (including siting, design, and technology), and an indication of the main reasons for selecting the proposed Project over the alternatives, taking into account environmental effects. In cases where a less environmentally damaging site, design, or technology alternative has not been selected, the reasons for rejecting this alternative should be explained.
- 3- Description of the aspects of the Environment likely to be affected by the proposed Project, e.g. public health, infrastructure, fauna, flora, soil, water, air, climatic factors, landscape, and material assets (including architectural and archaeological heritage), and the inter-relationship between these aspects.
- 4- Description of the likely significant effects of the proposed Project on the environment resulting from:
 - The erection of the Project;
 - The use of natural resources; and
 - The emission of pollutants, the creation of nuisances, and the disposal of waste.
- 5- Description by the Project Owner of the forecasting methods used to describe the environmental effects.
- 6- Description of the measures envisaged to prevent, reduce and, where possible, offset any significant adverse effects on the Environment.
- 7- A non-technical summary of the information provided under the above headings.
- 8- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the Project Owner in compiling the required information, and recommendation of remediation.

ANNEX 2
PROJECTS WHICH REQUIRE COMPREHENSIVE EIA (CATEGORY 1)

- 1- Crude-oil refineries.
- 2- Thermal power stations.
- 3- Reclamation of land from the sea for building industrial or recreational facilities or other.
- 4- Construction of harbors and marine ports and accessories thereof.
- 5- Construction of highways, railways, and airports.
- 6- Construction of marinas, jetties and off-shore facilities for industrial or recreational purposes.
- 7- Construction of major hotels and entertainment complexes.
- 8- Waste-disposal installations for the incineration, chemical treatment or landfill of toxic wastes.
- 9- Integrated chemical installations, such as petrochemical manufacturing complexes, pesticide and fertilizer factories, etc.
- 10- Industrial estate development Projects.
- 11- Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos.
- 12- Integrated works for cast-iron and steel manufacturing.
- 13- Cement manufacturing installations.
- 14- Construction facilities for the storage, repair or maintenance of trucks, buses, and cars.
- 15- Fish-breeding farms in the sea.

ANNEX 3
PROJECTS WHICH ARE PRELIMINARY EVALUATED FOR
ENVIRONMENTAL PURPOSES (CATEGORY II)

1- Agricultural Projects

- Poultry-breeding farms.
- Cattle- breeding farms.
- Fish- breeding farms.

2- Extractive Industries

- Deep drilling processes excluding drilling for investigating the stability of the soil, and in particular:
 - geothermal drilling,
 - drilling for water supplies.
- Seawater and salt water desalinization.
- Extraction of minerals other than metalliferous and energy-producing minerals, such as marble, sand, gravel, salt, phosphates and potash.
- Extraction of coal and lignite and underground mining processes.
- Ancillary industrial installations related to the extraction of petroleum, natural gas and ores, as well as bituminous shale.

3- Energy Generation Industries

- Industrial installations designated for generating electricity, steam and hot water (unless included in Category I).
- Industrial installations for the transportation of gases, steam and hot water, as well as transportation of electrical power through aerial cables.
- Surface storage of natural gas.
- Storage of flammable gases underground.
- Surface storage of fossil fuel.

4- Processing of Metals

- Iron and steel works, including foundries, forges, drawing plant; and rolling mills (unless included in Category I).
- Installations for the production, including smelting, refining, drawing and rolling of non-ferrous metals.
- Pressing, drawing and stamping of large castings.
- Surface treatment and coating of metals.
- Boiler making, manufacture of reservoirs, tanks and other sheet metal containers.
- Manufacture and assembly of motor vehicles.
- Installations for the roasting and sintering of metallic ores.

5- Glass Industry

6- Chemical Industries

- Treating intermediate products and producing chemicals (unless included in Category I).
- Producing pesticides, pharmaceuticals, paints, elastics and broxides (unless included in Category I).
- Premises for storing petroleum, petrochemicals and chemical products.

7- Food Industries

- Manufacturing vegetable and animal oils and greases.
- Packing and canning of animal and vegetable products.
- Manufacture of dairy products.
- Brewing and malting.
- Installations for the slaughterhouses.
- Fish-meal and fish-oil factories.
- Sugar factories.

8- Textile, leather; wood and paper Industries

- Manufacture woods, which includes of fiber board, particle board and plywood.
- Fiber-dying factories.
- Tannery and leather-dressing factories.

9- Rubber Industry and Treatment of Rubber-Based Products.

10- Infrastructure Projects

- Urban development Projects.
- Construction of roads, harbors, including fishing harbors, (Projects not listed in Category I).

11- Other Projects

- Hotel complexes and recreational facilities (not listed in Category I).
- Permanent motor vehicle racing and test tracks; horse racing tracks.
- Dumpsters of domestic waste (unless included in Category I).
- Wastewater treatment plants.
- Sludge disposal sites.
- Storage of scrap iron.
- Sports complexes.

12- Modifications and Expansions to Projects According to the Provisions of this Regulation.

13- Projects in Category I undertaken exclusively or mainly for the Development and Testing of New Methods of Production.

ANNEX 4
SAMPLE FORM FOR PRELIMINARY ENVIRONMENTAL
ASSESSMENT
(To be completed by the Assessor)

I- Background

- Name of the Project Owner : _____
- Address and Phone Number the Project Owner: _____
- Date of Form Submitted: _____
- Name of the Proposed Project: _____
- Name of the Assessor: _____

II- Environmental Impacts

(answers to these questions shall be “Yes”, “May be” or “No”. Explanation of all “Yes” or “May be” answers are required on attached sheets.)

1- Earth. Will the Project result in :

- Unstable earth conditions or in changes in upper geologic substructures ?
- Disruptions, displacements, compaction or over-covering of the soil?
- Change in topography or ground surface relief features ?
- The destruction, covering or modification of any unique geologic or physical features?
- Any increase in wind or water erosion of soils, either on or off the site ?

2- Air. Will the Project result in:

- Emit large quantity of gases which leads to the deterioration of surrounding air?
- Emit obnoxious odors?
- Alter air currency or humidity degree or temperature, or any change in the atmosphere whether on a local or regional level.

3- Water. Will the Project result in:

- Changes in water currencies, or water movement channels or its direction whether in sea waters or sweet waters?
- Changes in absorption level, or discharging modes, or the level of surface waters flow to rivers and seas, and the amount of such flow?
- Changes in the direction or flow of flood waters?
- Changes in the quantity of surface waters in any water mass?

- Usage of surface waters for discharging, or any changes in the quality of surface water as to (including, but not limited to) its temperature, the quantity of oxygen dissolved therein and the level of its crudeness?
- Changes in the direction of ground waters, or the rate of their rushing?
- Changes in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations ?
- Substantial reduction in the amount of water otherwise available for public water supplies?
- Exposure of people or property to water related hazards such as flooding or tidal waves ?

4- Plant Life, Will the Project result in :

- Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?
- Reduction of the numbers of any unique, rare or endangered species of plants ?
- Introduction of new species of plants into an area, or hinder the normal replenishment of existing species ?
- Reduction of land space designated for any agricultural crop?

5- Animal Life. Will the Project result in:

- Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?
- Reduction of the numbers of any unique, rare or endangered species of animal ?
- Introduction of new species of animals into an area, or establish a barrier to the migration or movement of animals?
- Deterioration to existing fish or wildlife habitat existing in the area?

6- Noise. Will the Project results in:

- Increases in existing noise levels ?
- Exposure of people to severe noise levels ?

7- Light or Glare. Will the Project produce new light or glare in an exceptional manner?

8- Land Use. Will the Project result in a substantial alteration of the present or planned land use of an area?

9- Natural resources. Will the Project result in :

- Increase in the rate of use of any natural resources?
- Substantial depletion of any nonrenewable natural resource ?

10- Risks of Disaster occurrence. Will the project result in:

- The risk of the occurrence of an explosion, spillage or emitting of hazardous substances (such as, but not limited to petroleum, pesticides, chemical compounds or radiation), in case of the occurrence of an accident or emergency?

- Possible hindering of emergency and evacuation plans?

11- Population. Will the Project alter the location, distribution, density, or growth rate of the human population of an area?

12- Housing. Will the Project affect existing housing opportunities, or create a demand for additional opportunities?

13- Logistics/ Transportation. Will the Project result in:

- Generation of substantial additional vehicular movement?
- Effects on existing parking facilities, or demand for new parking facilities?
- Substantial impact upon existing transportation networks?
- Alterations to present patterns of circulation or movement of people and/or goods?
- Alternations to air, rail or waterborne traffic?
- Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?

14- Public Services. Will the Project have an effect upon, or result in a need for new or altered governmental services in any of the following areas:

- Emergency and combating fires?
- Protection offered by the Police?
- Schools?
- National parks and other recreational areas?
- Maintenance of public utilities including road network?
- Other governmental services?

15- Energy. Will the Project result in:

- Use of substantial amounts of fuel or energy?
- Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?

16- Public Utilities. Will the Project result in a need for new utilities, or substantial alterations to the following utilities :

-
- Power or natural gas?
 - Communications networks?
 - Water?
 - Sewer or septic holes?
 - Rain water drainage?
 - Solid waste disposal?

17- Human Health. Will the Project result in :

- Creation of present or potential health hazard?
 - Exposure of people to potential health hazards?
-

18- Aesthetics. Will the Project result in the obstruction of any scenic vista or view open to the public, or will the Project result in the creation of an aesthetically offensive site open to public view?

19- Recreation. Will the project affect the quantity and quality of recreational opportunities available to the public?

20- Cultural Resources. Will the Project result in :

- Alteration or destruction of a prehistoric or historic archaeological site?
- Adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?
- Creation of adverse physical change which would affect unique ethnic cultural values?
- Change in existing religious or sacred uses within the potential impact area?

21- Mandatory Findings of Significance.

- Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause of fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal or eliminate important examples or the major periods of the re- history or prehistory?
- Does the Project have the potential to achieve short –term, to the disadvantage of long-term environmental goals ? (*A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.*)
- Does the Project have impacts which are individually limited, but cumulatively considerable? The project may have impact on two or more separate resources where the impact on each resource is relatively small, but the effect of the total of those impacts on the environment is significant.)
- Does the Project have environmental effects which will cause substantial adverse effects on human beings?

III- Discussion Of Environmental Impact Assessment (To be completed by the assessor on separate sheets)

IV- Determination (To be completed by the Directorate as a recommendation to the Director)

On the basis of this initial evaluation :

-
- I find the Project **COULD NOT** have a significant effect on the environment, and I recommend that the developer should be informed officially that EIA of his Project is not required.
-

- I find that although the proposed Project **COULD** have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the Developer Information Package have been found sufficient to minimize any adverse impact to the environment to the Project, I therefore recommend that the developer should be informed officially that EIA of his Project is not required.
 - I find the proposed Project **MAY** have a significant effect on the environment, and a full ENVIRONMENTAL IMPACT ASSESSMENT is required.
-
-
-

ANNEX 5
FACTORS OF ENVIRONMENTAL SIGNIFICANCE CRITERIA FOR
CATEGORY II PROJECTS

A Project will normally have a significant effect on the environment if it will:

- ❑ Conflict with adopted environmental plans and goals of the community where it is located;
- ❑ Have a substantial, demonstrable negative aesthetic effect;
- ❑ Substantially affect a rare or endangered species of animal or plant or the habitat of the species;
- ❑ Interfere substantially with the movement or any resident or migratory fish or wildlife species;
- ❑ Breach published national and international standards relating to solid waste or litter control;
- ❑ Substantially degrade water quality;
- ❑ Contaminate a public water supply;
- ❑ Substantially degrade or deplete ground water resources;
- ❑ Interfere substantially with ground water recharge;
- ❑ Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group;
- ❑ Induce substantial growth or concentration of population;
- ❑ Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system;
- ❑ Displace a large number of people ;
- ❑ Encourage activities which result in the use of large amounts of fuel, water, or energy;
- ❑ Use fuel, water or energy in a wasteful manner;
- ❑ Increase substantially the ambient noise levels for adjoining areas;
- ❑ Cause substantial flooding, erosion or siltation ;
- ❑ Expose people or structures to major geologic hazards;
- ❑ Extend a sewer trunk line with capacity to serve new development;
- ❑ Substantially diminish habitat for fish, wildlife or plants;
- ❑ Disrupt or divide the physical arrangement or an established community;
- ❑ Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected;
- ❑ Conflict with established recreational, educational, religious or scientific uses of the area;
- ❑ Violate nay ambient air quality standard, contribute substantially to an existing or Projected air quality violation, or expose sensitive receptors to substantial pollutant concentration.
- ❑ Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land.
- ❑ Interfere with emergency response plans or emergency evacuation plans.

ANNEX 6
INFORMATION TO BE SUBMITTED IN THE ENVIRONMENTAL IMPACT
STATEMENT (EIS)

A full EIS should be concise and should focus on the significant environmental issues, the statement's level of detail and sophistication should be commensurate with potential impacts, The target audience should be the Project designers, implementing agencies, the developer and ARA staff, and affected public and environmental NGOs. The report submitted to the Authority should be prepared in Arabic with English summary. The EIS should include the following items;

- ❑ Executive Summary. Concise discussion, in Arabic and English, of significant findings and recommended actions.
- ❑ Policy, Legal, and Administrative Framework, Discussion of the policy legal, and administrative framework within which the EIA is prepared.
- ❑ Project description. Concise description of the Project's geographic ecological, social, and temporal context, including any off-site investments that may be required by the Project (e.g. dedicated pipelines , access roads, power plants, water supply, housing, and raw material and product storage facilities).
- ❑ Baseline Data. Assessment of the dimensions of the study area and description of relevant physical, biological, and socioeconomic conditions , including any changes anticipated before the Project commences, Current and proposed development activities within the Project area (but not directly connected to the Project) should also be taken into account.
- ❑ Environmental Impacts, Identification and assessment of the positive and negative impacts likely to result from the proposed Project, Mitigation measures, and any residual negative impacts that cannot be mitigated should be explored, The extent and quality of available data, key data gaps, and uncertainties associated. Estimated, Topics that do not require further attention should be specified as well .
- ❑ Analysis of Alternatives. Systematic comparison of the proposed investment design, site, technology, and operational alternatives in terms of their potential environmental impacts; capital and recurrent costs; suitability under local conditions; and institutional, training and monitoring requirements, For each of the alternatives, the environmental costs and benefits should be quantified to the extent possible, and economic values should be attached where feasible, The basis for the selection of the alternative proposed for the Project design must be stated.
- ❑ Mitigation Plan. Identification of feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels, and estimation of the potential environmental impacts; capital and recurrent costs; and institutional, training, and monitoring requirements of those measures, The plan should provide details on proposed work programs and schedules, Such details help ensure that the proposed environmental actions are in phase with engineering and

other Project activities throughout implementation. The plan should consider compensatory measures if mitigation measures are not feasible or cost-effective .

- Environmental Monitoring and Post-Auditing Plan. Specifications of the type of monitoring, who would do it, how much it would cost, and what other inputs (e.g. training) are necessary.
- Signature of Project Owner to ascertain that the information contained therein are accurate and approved by the signatory. The signature shall be considered binding and shall be considered valid before third parties.
- Appendices:
 - List of EIA Prepares (individuals and organizations.)
 - References (written materials used in EIS preparation) This list is especially important given the large amount of unpublished documentation often used.
 - Record of Inter-agency/ forum/ Consultation Meeting (including lists of both invitees and attendees). The record of consultations for the affected People and local NGOs. Should specify any means other than consultations that were used to obtain the views of affected groups and local NGOs.

ANNEX 7
SPECIALISTS RELATED TO ENVIRONMENTAL IMPACT ASSESSMENT

| <i>Natural Resource</i> | <i>Sub-component</i> | <i>Specialist</i> |
|-------------------------|--|--|
| <i>AIR</i> | Air quality Wind direction/ speed Precipitation/ humidity Temperature Noise | Air quality/pollution analyst Air pollution control engineer Meteorologist Noise expert |
| <i>LAND</i> | Land capability Soil resources/structure Mineral resources Tectonic activity Unique features Coastal zones Mountains | Agronomist Soil engineer Soils scientist Civil engineer Geologist Geotechnical engineer Mineralogist Mining engineer Engineering geologist Seismologist |
| <i>WATER</i> | Surface waters Ground water regimes Hydrologic balance Drainage/canal pattern Flooding Sedimentation Wastewater | Hydrologist Water pollution control Engineer Water quality/pollution analyst Marine biologist/engineer Chemist Civil/sanitary engineer Hydro geologist |
| <i>FLORA& FAYNA</i> | Wetlands, marches, Wildlands, grasslands, Species inventory Productivity Biogeochemical/nutrient Cycling | Ecologist Forester Wildlife biologist Botanist Zoologist Conservationist |
| <i>HUMAN</i> | Social infrastructure Social institutions Cultural characteristics Physiological well-being Psychological well-being Economic resources | Social anthropologist Sociologist Archaeologist Architect Social planner Geographer Demographer Urban planner Transportation planner Economist |