



# **Rules for Implementation**





## Chapter One

### Article One: Definitions

For the purpose of these Rules, the following terms are defined as thus, unless the context dictates otherwise:

- 1) **The Competent Agency:** The Presidency of Meteorology and Environment (PME), previously the Meteorology and Environmental Protection Administration (MEPA).
- 2) **The Competent Minister:** Minister of Defense and Aviation and Inspector General
- 3) **Regulations:** The General Environmental Regulations.
- 4) **Public Agency:** Any ministry, department or government institution.
- 5) **Licensing Agency:** Any agency in-charge of licensing projects with potential negative impact on the environment.
- 6) **Concerned Agency:** The government agency in-charge of environment-related projects.
- 7) **Person:** Any private natural or juridical person, including individuals and private establishments and companies.
- 8) **The Environment:** All that surrounds man such as water, air, land and outer space and all the contents of these milieus such as inanimate objects, flora, fauna, various forms of energy, systems and natural processes and human activities.
- 9) **Environmental Protection:** Preservation of the environment and prevention of its contamination and deterioration.
- 10) **Air:** A mixture of constituent gases in their natural properties and known percentages as specified in the environmental standards enclosed herein.
- 11) **Environmental Pollution:** The presence of one or more substances or factors over a period of time in quantities or properties that will directly or indirectly be harmful to public



health, organisms, natural resources or properties or adversely effect the quality of life and the well-being of people.

- 12) **Polluting the Environment:** Any direct or indirect act or conduct by any person, either deliberate, non-deliberate, resulting from negligence or ignorant misconduct, etc., that causes environmental pollution.
- 13) **Environment Deterioration:** The negative impact on environment that changes its general nature or characteristics or the balance among its elements or loss of its beauty and appearance.
- 14) **Pollution Incidents:** Incidents that result in pollution or degradation of the environment but are within the local and national capabilities to combat and control.
- 15) **Environmental Disaster:** An incident which causes damage to the environment and requires greater capabilities to deal with than those needed for pollution accidents.
- 16) **Source Standards:** Maximum allowable limits or percentages of the concentration of various pollutants discharged to the ambient environment. This includes identification of the necessary controlling techniques to comply with these limits.
- 17) **Environmental Quality:** Limits and percentages of concentrations of Standards pollutants that are not allowed to be exceeded in the air, water and land.
- 18) **Environmental Standards:** Both environmental quality and source standards.
- 19) **Environmental Criteria:** The environmental specifications and criteria to control pollution sources.
- 20) **Projects:** Any facilities, installations or activities with potential impact on the environment.
- 21) **Project Owner:** The concerned or public agency or person owning the project, supervising it or responsible for its management or operation.
- 22) **Existing Projects:** Projects whose construction began before the issuance of these Regulations.



- 23) **New Projects:** Projects that haven't been constructed yet, or those in the phases of design, licensing or launching of construction operations.
- 24) **Modified Projects:** Existing projects that have undergone one or more modifications, including expansion of area or production volume or changes in operating processes or crude oil volume, grade or quantities, which are of potential impact on the environment.
- 25) **Major Change:** Any expansion or change in design or operation of any existing project that might negatively affect the environment. For the purpose of this definition, any equivalent substitution of quality and capacity shall not be deemed a major change.
- 26) **Environmental Impacts:** A set of environmental reactions resulting from preparation, construction or operation of any project.
- 27) **Environmental Assessment of the project:** The study carried out to identify the potential or consequential environmental impacts, the procedures and appropriate methods to prevent or reduce the negative impact and increase or achieve positive outputs of the project on the environment in accordance with the environmental standards in force.
- 28) **Air Pollution:** Addition of materials or elements to the atmosphere or the air in a manner that could affect the quality of life and human health and well-being and cause damage to vital resources and ecological systems.
- 29) **Surface Water:** All water existing on the surface of the earth, including sea, valley, dam, well and spring water.
- 30) **Ground Water:** Water existing underground.
- 31) **Water Pollution:** Direct or indirect addition of any substances or energy into the water environment causing damage to living and non living resources, threatening human health, degenerating the natural properties of water or hampering water-related activities such as fishing and recreation.



- 32) **Land Pollution:** Performance of any activity or the direct or indirect introduction of any substances into various types of land and soil in a manner that causes damage to any or all of its physical, chemical or biological properties, threatens human health or hampers agricultural or construction activities.
- 33) **Oil:** Includes all types and forms of crude oil and its products, including liquid hydrocarbons, lubricating oils, fuel oil, refined oils, tar and oils and waste produced in the process of oil refining.
- 34) **Vessel:** Any floating unit of any type like ship or boat navigating on the surface of water.
- 35) **Tanker:** Vessel originally built or modified to carry shipments of oil, any petroleum solid, liquid or gaseous substances, or any other harmful substances.
- 36) **Discharge:** Adding pollutants to ambient air, receiving water, soil or any central treatment facility.
- 37) **Direct Discharge:** Discharge to the various environmental mediums (air, water and soil), excluding discharge to a central treatment facility.
- 38) **Oil Transport Means:** All known means of oil transportation, including vessel, tanker, truck, road tankers, or under the sea or surface oil pipelines.
- 39) **Coast:** Area where sea and land meet at the medium tidal point.
- 40) **Coastal Range:** Coastal area affected by the sea and the marine area affected by land.
- 41) **Shoreline:** The maximum limit reached by seawater on land during high tide.
- 42) **Protected Area:** An area of land, coast, sea or inland water which is environmentally-sensitive; distinct for abundance of vegetation and animal life, or of a recreational, aesthetic or economic value, which requires protection.
- 43) **Storage:** All operations intended to keep or contain wastes and other hazardous, toxic or radioactive substances for the purpose of treatment, transportation or disposal.



- 44) **Storage Pool:** Any lined or unlined hole, depression or area naturally or artificially enclosed, consisting mainly of earthy, cement or any other processed materials designated for holding accumulated liquid-containing wastes.
- 45) **Disposal:** All operations of incineration; precipitation; or intentional or unintentional, direct or indirect, discharge of any wastes or hazardous, toxic or radioactive substances, either in gaseous, liquid or solid forms, into the environment.
- 46) **Container:** Any vessel or receptacle used to hold or transport substances or wastes, including hazardous substances and wastes.
- 47) **Offsite Location:** Any location outside the land surrounding and belonging to the project.
- 48) **Sludge:** Any solid, semi-solid, liquid or precipitating wastes remaining at the bottom of tanks or containers, such as those resulting from the treatment processes of domestic, commercial or industrial sewage or potable water or produced by air pollution control devices.
- 49) **Ground Treatment Facility:** Any facility where wastes are placed or mixed with soil or some materials are added to change their chemical or physical properties as a method of treatment.
- 50) **Landfill:** Any facility, other than a ground treatment facility or a storage pool, where wastes are disposed of in an environmentally safe manner either by placing them on the ground or burying them underground.
- 51) **Waste Pile:** Non-liquid waste accumulations not placed in containers, a landfill or a storage pool.
- 52) **Treatment:** Any means or technique of altering the physical, chemical or biological properties of wastes used to neutralize such wastes; utilize substances or energy contained therein or released by them; and transform the hazardous wastes into wastes that are non-hazardous, less hazardous or safer when transported, stored, disposed of, prepared for storage, or reduced in volume.



- 53) **Closed Internal Remediation:** The process under which waste treatment is directly related to the project's production process and which is used to prevent waste or any of its components from leaking into the environment.
- 54) **Maximum Allowable Limit:** Specified numerical value of polluting materials that should not be exceeded.
- 55) **Monthly Average:** Arithmetic mean of pollutants concentrations measured through the analysis of random samples for thirty successive days.
- 56) **Liquid Wastes:** Liquid and semi-liquid wastes resulting from households, housing complexes, shops, public and private establishments, restaurants, factories, workshops and plants activities including agricultural and industrial sewage wastes.
- 57) **Hazardous Materials:** Any materials classified as hazardous according to the rules and guidelines set forth by the Competent Agency in cooperation with concerned agencies and under regional and international directives.
- 58) **Wastes:** Wastes as defined in Appendix 4.
- 59) **Hazardous Wastes:** Wastes of various activities and processes considered hazardous to the environment, health and public safety. It also means the hazardous wastes defined in Appendix 4.
- 60) **Properties of Hazardous Wastes:** Chemical, physical or biological properties of wastes, representing one or more of the hazardous waste substances' properties referred to in Appendix 4.
- 61) **Transportation Document:** The form specified by the Competent Agency for the follow up on hazardous waste transportation from the point of generation to the point of storage, treatment or ultimate disposal.
- 62) **Environmental Monitoring Networks:** Networks set up by the competent or concerned agency or persons, which includes stations and work units, to monitor environmental elements and pollutants.





- 63) **Compensation:** Compensation for damages resulting from environmental pollution of any source and whatever imposed by the provisions of regional and international agreements that the Kingdom has or will join, sign or endorse in future, or any compensation for environmental pollution incidents provided for by these Rules for Implementation of the Regulations.
- 64) **Ballast Water:** Water inside a ship or tanker that transports oil and other petroleum derivatives which is used to maintain the balance of the ship or tanker when sailing empty.
- 65) **Ballast Water Reception Centers:** Specific installations, equipment and pools to receive, precipitate, treat and discharge the polluted ballast water.
- 66) **Carrying Capacity of Natural Resources:** The limit under which resources can naturally or artificially rehabilitate and the exploitation levels do not cause a permanent drainage or wasting of such resources.
- 67) **Projects of Special Nature:** Implemented projects whose activities relate directly or indirectly to safety, health or national economy.
- 68) **Environmental Awareness:** The awareness of members of society about the importance of environmental conservation, rationalizing the exploitation of natural resources and preventing or limiting degradation or pollution of such resources.
- 69) **Raising Environmental Awareness:** Promoting the society's knowledge of the importance of environment and its effect on human behavior, economy and health.
- 70) **Environmental Education:** Organizing the process of promoting awareness, behavior, skills, conceptions and values that leads to positive attitudes in handling the environment and the natural resources.
- 71) **Awareness Programs or Campaigns:** Systematic and planned efforts and activities to promote environmental knowledge and raise environmental awareness.



- 72) **Means and Materials of Promoting Environmental Awareness:** All known and available means and materials, either in print or audio or visual products, including publications, books, films, programs of contests and tours etc.

### **Article Two: Goals**

These General Environmental Regulations and Its Rules for Implementation are aimed to achieve the following:

6. Preserve, protect and develop the environment and prevent its pollution,
7. Protect public health from activities and acts that harm the environment.
8. Conserve and develop natural resources and rationalize their use.
9. Include environmental planning as an integral part of overall development planning in all industrial, agricultural, architectural and other fields.
10. Raise awareness in environmental issues and strengthen individual and collective feelings of responsibility for preserving and improving the environment and encouraging national voluntary efforts in this field.



## **Chapter Two Duties and Obligations**

### **Article Three**

In pursuit of Article Three of the General Environmental Regulations, the Competent Agency shall be entrusted with the duties of preserving the environment and preventing its degradation, which includes the following means:

- 3-1 Review and evaluate condition of the environment, develop monitoring means and tools, collect information and conduct environmental studies.
  - 3-1-1 Coordinate with the concerned agencies to prepare periodical reports on the Kingdom's environmental condition and develop the environmental information infrastructure and databases required to assess the status of the environment.
  - 3-1-2 Develop means of observing and monitoring environmental pollution and degradation in all cities, regions and territorial waters of the Kingdom, including the establishment of a sufficient number of observation and monitoring locations through stations, fixed and portable laboratories and other means of measurement and observation.
  - 3-1-3 Develop an executive plan to deploy observation and monitoring equipment to follow-up pollution events of all types.
  - 3-1-4 Propose projects and mechanisms to implement the environmental studies in a manner that covers the Kingdom's various environment types in cooperation and coordination with the concerned agencies, research centers, national universities and regional and international centers, institutes and organizations as needed.
- 3-2 Document and publish environmental information.



- 3-2-1 Utilize its own environmental databases and information and those acquired by public agencies, concerned agencies and persons in documenting and publishing environmental information.
- 3-2-2 Coordinate with the concerned agencies to set up the environmental information network and set the procedures for its development and management.
- 3-2-3 Establish environmental information exchange and handling procedures for the concerned agencies, researchers, decision makers and other sectors of the society that need such information.
- 3-2-4 Document and update environmental information. Public and concerned agencies and persons shall continuously provide the Competent Agency with their available environmental information.
- 3-2-5 Prepare and develop procedures and rules to qualify and register agencies and persons engaged in various environmental fields.
- 3-2-6 Qualify and register agencies and persons engaged in the environmental field.
- 3-3 Prepare, issue, review, develop and interpret environmental protection standards.
- 3-3-1 Study the characteristics of various ecological systems and environmental media, identify the sources of pollution and establish and prepare relevant environmental standards.
- 3-3-2 Coordinate with the concerned agencies to review, develop and apply environmental standards as needed (Appendix 1).
- 3-3-3 Prepare the basis and procedures for evaluating the impacts of industrial and development projects on the environment and the general guidelines for environmental impact assessment studies.



- 3-3-4 Coordinate with the concerned agencies to review, upgrade and develop environmental standards, specifications and guidelines related to their activities.
- 3-4 Propose environmental regulations relevant to its area of jurisdiction.
  - 3-4-1 Develop draft environmental regulations.
  - 3-4-2 Coordinate with the concerned agencies to develop plans and rules for implementation of environmental regulations.
  - 3-4-3 Review and develop plans and rules for implementation of environmental regulations compatible with environmental requirements and variables.
- 3-5 Ensure that public agencies and individuals comply with environmental regulations, criteria and standards and undertake necessary procedures in coordination with the concerned and licensing agencies.
  - 3-5-1 Coordinate and cooperate with the concerned and licensing agencies to determine the necessary implementation procedures to ensure public agencies and persons commitment to environmental regulations, standards and criteria (Appendices 1, 2 and 3).
  - 3-5-2 Coordinate and cooperate with the concerned and licensing agencies to implement those procedures.
  - 3-5-3 Coordinate and cooperate with the concerned and licensing agencies to review, follow up and develop implementation procedures in accordance with the environmental variables and develop necessary technical and personnel capabilities required for this purpose.
  - 3-5-4 Coordinate and cooperate with the concerned and licensing agencies to provide and develop monitoring and inspection missions to ensure public agencies and persons commitment to



environmental regulations, standards and criteria (Appendices 1, 2 and 3).

- 3-5-5 The competent agency should ensure through the public agencies that their projects, or projects under their jurisdiction or projects being licensed by them comply with the environmental regulations, standards and criteria according to the period agreed upon that ensures the compliance with the regulations and its rules for implementation.
- 3-5-6 Authorize any agency to perform some of the environmental functions assigned to the Competent Agency.
- 3-5-7 Encourage agencies engaged in production services activities and industrial facilities to apply environmental management regulations.
- 3-6 Keep abreast the latest developments in the field of environment and its management at the regional and global level.
  - 3-6-1 Keep abreast at regional and global levels, environmental developments, coordinate with the concerned agencies and national focal points concerning regional and international environmental commitments, and pursue their implementation on a national level.
  - 3-6-2 Coordinate and cooperate with concerned and public agencies to develop a national environmental contingency plan.
  - 3-6-3 Coordinate national position related to international and regional environmental protocols and conventions.
  - 3-6-4 Follow up on environmental memoranda of understanding and cooperation and coordinate efforts with the concerned agencies to make it functional.
  - 3-6-5 Follow up on the implementation of international and regional environmental agreements articles and protocols and coordinate



with the concerned agencies and national focal points to implement the Kingdom's obligations.

- 3-6-6 Coordinate efforts with international and regional environmental organizations and government agencies in order to benefit from such organizations' efforts in following up the implementation of national obligations resulting from international agreements.
- 3-6-7 Coordinate and cooperate with concerned and public agencies to benefit from the scholarship, training and workshop programs organized by international and regional organizations and agencies in the field of environment.
- 3-6-8 Coordinate and cooperate with the concerned agencies to benefit from bilateral environmental cooperation.
- 3-7 Publicize environmental awareness at all levels.
  - 3-7-1 Coordinate and cooperate with the concerned agencies to develop strategies for environmental education, awareness and media and their implementation plans.
  - 3-7-2 Mobilize moral and materialistic efforts of individuals and persons to implement the environmental awareness strategy, programs and plans.
  - 3-7-3 Coordinate and cooperate with the concerned agencies, individuals and persons to utilize national, regional and international events in publicizing environmental awareness.
  - 3-7-4 Support efforts of agencies concerned with training and education to develop environmental education programs and curricula.
  - 3-7-5 Coordinate efforts with international and regional organizations and programs to support national environmental awareness programs.



- 3-7-6 Encourage and stimulate all agencies and persons efforts to publicize environmental knowledge and awareness.
- 3-7-7 Issue and develop environmental awareness materials and programs, and cooperate with the concerned agencies and persons to utilize the support, facilities and programs they provide to publicize environmental knowledge and awareness.

#### **Article Four**

- 4-1 All public agencies must take appropriate actions to apply the rules set forth herein for their projects or projects under their supervision or licensing and ensure commitment to environmental regulations, criteria and standards stated in the rules for implementation hereof.
- 4-1-1 Public agencies shall develop instructions and implementation procedures and rules for implementation in order to enforce the implementation environmental regulations and its rules for implementation on persons or projects or projects under its supervision or licensed by it.
- 4-1-2 Public agencies shall hold persons and projects belonging to, supervised by or licensed by such public agencies, responsible for implementing Rules for Implementation of these regulations and their executive procedures. Each person shall be held responsible for the environmental transgressions and violations falling within his area of operations as being contractor or subcontractor.
- 4-1-3 Environmental standards and criteria issued or to be issued, amended or supplemented by the Competent Agency shall be considered appendices to these Rules and a complementary part thereof.
- 4-1-4 Public, licensing and concerned agencies shall ensure that environmental works related to their projects are carried out by





contractors qualified for such works according to the criteria specified by the Competent Agency in Appendix 3.

- 4-1-5 All concerned, public and licensing agencies shall notify the competent agency of all incidents and violations periodically in their report submitted to the competent agency and when an unexpected negative environmental impact or pollution occur, these agencies would notify the competent agency immediately.
- 4-2 All public agencies responsible for the issuance of standards, specifications or rules related to the practice of activities impacting the environment must coordinate with the competent agency before its issuance.
- 4-2-1 All agencies shall coordinate with the Competent Agency before issuing, updating or amending any standards, criteria or rules relating to the conduct of activities affecting the environment.
- 4-2-2 Pursuant to Paragraph 2 of Article IV of these Regulations regarding environmental standards, criteria, specifications, guidelines and rules issued by public agencies prior to the issuance of these Regulations, public and concerned agencies shall coordinate with the Competent Agency to review previously issued environmental standard, criteria, specifications, guidelines and rules in order to amend or update them as required based on guidelines and instructions issued by the Competent Agency.

### **Article Five**

Licensing agencies must ascertain that the environmental assessment studies for projects which may cause negative impacts on the environment are done at the project feasibility stage, the agency in charge of implementation of the project shall be responsible for conducting the environmental assessment studies in accordance with the environmental rules and standards determined by the competent agency in the rules for implementation.



- 5-1 Public, concerned and licensing agencies and persons responsible for project implementation or operation shall conduct environmental assessment studies in accordance with environmental rules, standards, criteria and procedures clarified in Appendix 2.
- 5-2 Public, concerned and licensing agencies shall ensure that environmental assessment studies are conducted at the project feasibility study stage in accordance with the environmental rules, standards, criteria and procedures clarified in Appendix 2.
- 5-3 The Licensing agency shall ensure that the EIA studies should be carried out during the project feasibility study phase according to the environmental rules, standards mentioned in the annexes of these rules for implementation.
- 5-4 Concerned, public and licensing agencies engaged in any of the various environmental activities, working in the field of protecting and developing natural resources, or licensing industrial and development projects that have potential adverse environmental impacts shall coordinate with the Competent Agency to ensure commitment to conducting environmental assessment studies in accordance with the environmental rules and standards specified in Appendix 2.
- 5-5 Public and concerned agencies and persons in-charge of implementing or operating projects shall periodically provide the Competent Agency with a statement advising that they are in compliance with environmental standards and guidelines.
- 5-6 If the Competent Agency discovers that the concerned agencies, persons or agencies implementing projects have not fulfilled the requirements of environmental assessment studies submitted along with the feasibility studies, or have not complied with the requirements, guidelines and comments. Coordination shall be made with the concerned and licensing agencies to take necessary actions that will achieve commitment to, and



compliance with, environmental assessment studies submitted as part of the feasibility studies.

### **Article Six**

The agency implementing new projects or making major modifications to existing projects or has projects whose specified investment terms had expired must utilize the best and most suitable technologies available for the local environment and use materials that cause least contamination to the environment.

- 6-1 Taking into consideration the results of environmental impact assessment study, licensing of new projects, major modifications to existing projects or projects with specific expired investment terms shall require public, concerned and licensing agencies and persons implementing such projects to give an undertaking, prior to commencing their activities, to employ technology which is internationally evaluated best and most suitable technology available for the local environment and to use materials with minimal pollution to environment and to commit using technologies that are suitable for the treatment of waste or post-operative toxic emissions in accordance with the environmental standards, criteria and guidelines specified in the appendices hereof.
- 6-2 In coordination with the Competent Agency, public, concerned and licensing agencies shall undertake necessary and sufficient procedures to implement the contents of Paragraph 6-1.
- 6-3 Public, concerned and licensing agencies and persons implementing major modifications to existing projects or to projects with specific expired investment terms shall undertake to rehabilitate the environment and restore it to its previous condition as far as possible in accordance with the environmental regulations, guidelines and standards set forth by the Competent Agency in coordination with the concerned and licensing agencies.



- 6-4 In coordination with scientific research centers and agencies specialized in the area of technology, the Competent Agency and the concerned agencies shall, undertake periodical survey every five (5) years, to review and assess the latest available technologies which are suitable for the local environment.

### **Article Seven**

- 7-1 All agencies in-charge of education must include environmental concepts in curricula at various stages of education.
- 7-1-1 In coordination with the Competent Agency, agencies concerned with education shall incorporate environmental concepts into the curriculum of general and higher education and training programs.
- 7-1-2 Concerned agencies shall take necessary actions to develop current environmental concepts into the curriculum of general and higher education and training programs, in accordance with the latest environmental progress and developments.
- 7-1-3 Agencies concerned with education and training shall motivate and develop extracurricular activities and programs to promote environmental awareness.
- 7-2 All agencies in-charge of media must enhance environmental awareness in various mass media and support concept of environmental protection from Islamic perspective.
- 7-2-1 The Competent Agency shall cooperate with the public, concerned agencies and persons in arranging specialized environmental forums and conferences as well as workshops and training courses in the field of the environment to enhance and publicize environmental awareness and environmental protection concept from an Islamic perspective.
- 7-2-2 Concerned agencies and the Competent Agency shall cooperate and coordinate to develop a national plan to promote and



develop environmental education and awareness programs, utilizing national, regional and international events, exhibitions, workshops, forums, conferences and environmental contests to publicize environmental awareness and strengthen concepts of environmental preservation and protection from an Islamic perspective.

7-3 All agencies in-charge of Islamic affairs, call and guidance must enhance the role of mosques in encouraging the community to preserve and protect the environment.

7-3-1 The Competent Agency shall support and follow up efforts of the agencies responsible for Islamic affairs, call and guidance (Da'wah and Irshad) in enhancing the role of mosques in encouraging the community to preserve and protect the environment and publicize the environmental protection concept from an Islamic perspective.

7-4 All concerned agencies must prepare appropriate training programs to develop capabilities in the field of preserving and protecting the environment.

7-4-1 The Competent Agency shall cooperate and coordinate with the concerned agencies to support their efforts in setting up and developing appropriate training programs to enhance capabilities in the preservation and protection of the environment in various fields.

7-4-2 The Competent Agency and the concerned agencies shall coordinate with scientific research centers, scientific institutes and agencies engaged in environmental activities to set up and develop training programs in various environmental fields.

7-4-3 The Competent Agency and the concerned agencies shall coordinate with regional and international organizations, bodies and scientific research centers to utilize the training programs provided by such organizations, bodies and centers to develop national capabilities in area of the environment and its protection and preservation.



7-4-4 The Competent Agency shall cooperate and coordinate with the concerned agencies to utilize bilateral cooperation agreements in the area of environmental protection signed between the Kingdom and other Arab and friendly countries, to set up mutual training programs to develop capabilities in preserving and protecting the environment.

### **Article Eight**

Pursuant to Article VIII of the General Environmental Regulations, and without prejudice to the provisions of the regulations and directives, public agencies and persons shall undertake to:

- 8-1 Rationalize the use of natural resources to preserve and develop renewable resources and prolong the duration of use of non-renewable resources.
  - 8-1-1 Abide by all procedures designed to protect and rationalize the use of natural resources.
  - 8-1-2 Coordinate and cooperate with the Competent Agency to develop a national plan for protecting, conserving and rationalizing the use of ecological systems and natural resources.
  - 8-1-3 Coordinate and cooperate with the Competent Agency to develop contingency plans for protecting ecological systems and natural resources.
  - 8-1-4 Coordinate and cooperate with the Competent Agency to develop an implementation plan to restore and rehabilitate degraded ecological systems and natural resources.
  - 8-1-5 Coordinate and cooperate with the Competent Agency to make use of the programs to protect and preserve and develop ecological systems and natural resources that are planned in the programs and activities of the regional and international bodies and organizations.



- 8-1-6 Encourage and support the use of the technologies and practices aimed at minimizing and rationalize the use of natural resources while maintaining or increasing production efficiency.
- 8-1-7 Public, concerned and licensing agencies and the Competent Agency shall cooperate and coordinate in areas of their jurisdiction, to prevent the degradation of natural resources caused by unlawful exploitation by human being.
- 8-2 Achieve a balance between the types and consumption rates and carrying capacity of resources.
- 8-2-1 Public agencies and the Competent Agency shall coordinate to make an inventory of all ecological systems and natural resources in the Kingdom with the purpose of setting up, developing and preparing databases, maps and photographs to be utilized in developing protection, preservation and conservation plans. Such information shall be updated as required.
- 8-2-2 Public, concerned and licensing agencies shall incorporate into their development plans and projects, all procedures, recommendations and requirements designed to achieve a balance between the rates of utilization of natural resources to their carrying capacity.
- 8-3 Apply technologies for the recycling and re-use of resources.
- 8-3-1 Coordinate with the Competent Agency to develop and implement a national plan for recycling wastes and reuse of resources.
- 8-3-2 Encourage agencies that adopt recycling of wastes and reuse of resources.
- 8-3-3 Coordinate to develop a national information dissemination plan emphasizing the importance of reuse of resources and its development and protection and encourage the organization of scientific and specialized workshops, forums and conferences



related to recycling technologies and reuse of resources and development of inherited techniques.

- 8-4 Develop conventional technologies and traditional systems compatible to the local and regional environmental conditions.
  - 8-4-1 Encourage and motivate scientific research centers and institutes to conduct scientific studies related to maintaining and developing traditional systems and nurturing environment friendly alternatives and to adopt the required policies to promote the use of such traditional technologies systems.
- 8-5 Develop technologies of traditional building materials.
  - 8-5-1 Encourage institutes, scientific study and research centers to conduct scientific research related to the development of technologies, materials and traditional building design on developing traditional building technologies, material use and to adopt the required policies to encourage the use and development of such technologies.
  - 8-5-2 Coordinate with the Competent Agency to carry out scientific studies and research related to pollution sources in traditional building materials and their effect on human beings and to encourage the application and implementation of the outcome of such studies.
  - 8-5-3 Coordinate and cooperate to develop guidelines and controls for the utilization of natural resources in traditional building construction and protecting and conserving its uses.

### **Article Nine**

- 9-1 In coordination and cooperation with the concerned agencies, the Competent Agency shall develop an environmental disaster plan based to deal with environmental disasters based on the inventory of local, regional and international capabilities.





- 9-1-1 Public and concerned agencies and persons shall set up and develop environmental disaster plans and the Competent Agency shall cooperate with such agencies in developing and implementing these plans as required.
- 9-1-2 The Competent Agency shall cooperate and coordinate with regional and international organizations, bodies and programs to utilize environmental disaster related training programs.
- 9-1-3 In cooperation and coordination with the public and concerned agencies, the Competent Agency shall coordinate and mobilize regional and international efforts to respond to environmental disasters and overcome obstacles that impede the combating, follow up, monitoring and control of the disaster in accordance with bilateral cooperation agreements and ratified regional and international agreements and conventions.
- 9-2 Concerned agencies shall set up and develop emergency plans required to protect the environment from pollution hazards resulting from emergencies caused by their projects during the performance of their activities.
- 9-2-1 The National Plan for Combating Marine Environment Pollution with Oil and Other Harmful Substances in Emergencies, approved by Council of Ministers' decision No 157, dated 20 Dhu al-Qa'dah 1411 [3 June 1991], Appendix 4, shall be considered part of these Rules for Implementation. The Competent Agency, in coordination and cooperation with the public and concerned agencies specified in the Plan, shall develop implementation plans to activate the National Plan.
- 9-2-2 Concerned agencies and persons shall verify emergency plans needed for environmental protection from pollution resulting from and periodically review it and coordinate its implementation efforts in their projects.
- 9-2-3 Concerned agencies and persons shall provide trained and qualified technical manpower as well as equipment to activate emergency environmental protection plans in projects under



their supervision, and develop and implement the required training plans to activate and implement such plans.

- 9-2-4 Concerned agencies and persons shall immediately report to the Competent Agency any pollution emergency, promptly activate emergency plans required to protect the environment in case of pollution and make sure that such implementation is effective.
- 9-2-5 The concerned agencies and persons shall coordinate with the Competent Agency, responsible for the evaluation of environmental damage resulting from the emergency pollution, in the evaluation of such damage.
- 9-3 Each person who supervises a project or a facility, with potential adverse impacts on environment, shall prepare emergency plans to prevent or alleviate the hazards of such impacts and have the sufficient means to implement these plans.
- 9-3-1 Persons in the projects shall provide trained and qualified manpower as well as the required equipment and technologies needed to develop and implement emergency plans for preventing or alleviating potential adverse environmental impacts of such projects.
- 9-3-2 Persons in the projects shall make sure that their emergency plans are preventing or alleviating the risks of potential adverse environmental impacts of such projects to the minimum and comply with environmental standards, criteria and guidelines as indicated in appendix 1 of these rules.
- 9-4 In coordination with the concerned agencies, the Competent Agency shall conduct periodical reviews of the suitability of emergency plans.
- 9-4-1 Concerned, public and licensing agencies and persons shall periodically review the emergency plans that protect the environment from pollution or prevent or reduce the potential adverse impacts on the environment in projects operated,



supervised or licensed by them, develop such plans as required and coordinate with the Competent Agency.

9-4-2 In cooperation with the concerned, public and licensing agencies, the Competent Agency shall review the emergency plans and make the necessary amendments.

9-4-3 Persons supervising projects shall coordinate with the Competent Agency and the concerned agencies to conduct periodical trial drills on implementing the emergency plans in order to determine the effectiveness and readiness of equipment and agencies participating in the implementation of such plans.

### **Article Ten**

Environmental aspects shall be taken into consideration in planning for projects and programs, in the development plans of the various sectors and in the general development plan. These environmental aspects should be taken into consideration in a manner to achieve sustainable development objectives, especially in the following agencies:

10-1 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental considerations are incorporated into the health strategy and its required implementation plans.

10-2 The concerned agency shall take into consideration the environmental aspects in the planning process at the stage of projects, programs and developmental plans to manage the natural resources and its development, rationalize the use of natural resources and implement plans deemed necessary for it.

10-3 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental considerations are incorporated into the industrial strategy and its required implementation plans.



- 10-4 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental considerations are incorporated into the national urban development strategy and its required implementation plans.
- 10-5 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental considerations are incorporated into the agricultural strategy and its required implementation plans.
- 10-6 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental considerations are incorporated into the tourism strategy and its required implementation plans.
- 10-7 The concerned agency shall cooperate and coordinate with the competent agency to ensure that environmental information and awareness are incorporated into the mass communication (media) strategy and to make the individual and society collectively responsible for protecting, conserving, developing and improving its natural resources.
- 10-8 The Competent Agency and the concerned agencies shall cooperate and coordinate to prepare and implement national plans to manage and plan coastal areas and its development as well as preparing necessary implementation rules.

### **Article Eleven**

- 11-1 Each person responsible for designing or operating any project or activity shall ensure that such design and operation is consistent with the applicable regulations and standards.
- 11-1-1 A project owner or proprietor shall conduct environmental studies to evaluate the environmental impacts of the project and comply with the outcome of the environmental impact assessment study in accordance with environmental standards



and guidelines specified in the Rules for Implementation or any subsequent amendments and supplements.

- 11-1-2 Persons charged with operating any project having a potential adverse environmental impact shall install automated instruments to detect and monitor the environmental parameters and provide the Competent Agency with the output and results generated by such instruments when required after coordination with the concerned or licensing agencies.
- 11-1-3 An owner, proprietor or operator of a project shall comply with the environmental specifications, criteria, standards and guidelines specified in (Appendices 1, 2, 3, 4 and 5) and any subsequent supplements or amendments.
- 11-2 Any person engaged in an activity with potential adverse environmental impacts shall take the appropriate actions to limit such impacts or minimize the chances of their occurrence.
- 11-2-1 Any person engaged in an activity with potential adverse environmental impacts shall fully abide by and implement the environmental standards and guidelines set forth in the appendices to these Rules.
- 11-2-2 Any person who performs an act that causes environmental pollution or adverse environmental impacts shall take all necessary actions to immediately halt such pollution, remove the adverse impacts and cure their effects, restore the damaged environment in the manner determined by the Competent Agency after coordination with the concerned agency and in accordance with these Rules for Implementation within the specified period of time. If such person fails to fulfill these obligations, he will bear all costs resulting from the process of halting the pollution, monitoring, follow-up and remediation of the damages caused by the pollution.



## Article Twelve

- 12.1 Anyone performing digging, demolition, construction, or debris and dirt transportation works must take necessary precautions for the safe storage and transportation of such materials, which must be treated before and disposed off properly.
- 12.1.1 All public agencies and persons engaged in any activity or work causing or generating waste or dirt shall comply with all the requirements established by the concerned, licensing or public agencies or the Competent Agency regarding the handling, transportation, storage, treatment and disposal of such wastes.
- 12.1.2 In cooperation and coordination with the Competent Agency, the concerned agencies shall determine the procedures relating to final disposal of wastes generated by excavation, demolition and construction activities and ensure that all the precautions necessary for the protection of the environment and its natural resources have been taken.
- 12.2 All smoke, gases or vapors and solid or liquid residue resulting from the burning of any kind of fuel or alike for industrial purposes and power generation etc. must be within allowable limits as permitted in the environmental standards.
- 12.2.1 When burning any kind of fuel or other substances as in 12.2, the concerned agencies shall require persons burning any fuel to use the appropriate means and technologies so that gaseous, solid or liquid wastes generated by burning in stationary or mobile sources shall be within the permitted environmental standards and criteria set forth in Appendices (1) and (4).
- 12.2.2 When burning any kind of fuel or other substances for any purpose, the concerned agencies and persons shall employ the most appropriate means, technologies and suitable alternatives to minimize adverse environmental impacts to the lowest level.



- 12.3 The owner of the plant must take all necessary precautions and measures to ensure that no air pollutant leak or emission occurs in the work place beyond the allowable limits of the environmental standards.
- 12.3.1 The agencies concerned with the indoor environment shall coordinate and cooperate with the Competent Agency to prepare, review, develop and implement work based environmental standards as required.
- 12.3.2 The concerned agencies shall require persons and agencies responsible for work places to use all available means and take all possible precautions to comply with work environment standards, improve the work environment and minimize the possibility of exposure to pollution.
- 12.3.3 The concerned, public and licensing agencies and the Competent Agency shall coordinate with persons in following up on illnesses resulting from deterioration of indoor environment and its interactions.
- 12.3.4 Persons shall bear all costs of treatment for illnesses resulting from the deterioration of the indoor work environment and exposure to pollution within the project when it is ascertained according to the relevant rules.
- 12.4 Adequate ventilation requirements must be applied in enclosed and semi-enclosed public places according to the size and carrying capacity of the place and the kind of activity carried out in it.
- 12.4.1 The public, concerned, licensing agencies shall coordinate and cooperate with the Competent Agency to prepare, review and develop the technical requirements for ventilation facilities in closed and semi-closed facilities in a manner that is adequate to the area and capacity of the facility and the type and size of activity undertaken there.



12.4.2 The public, concerned and licensing agencies shall follow up on the implementation of the technical requirements for ventilation facilities in all closed and semi-closed facilities.

In accordance with the following paragraph which reads as follows “the Rules for Implementation shall determine environmental precautions, measures, methods and environmental standards” mentioned in the Implementation Rules which are indicated in Article XII of the General Regulations on the Environment, any environmental standards, criteria, guidelines and environmental procedures, as well as specific instructions, precautions and measures which have been or will be issued and all supplements or amendments thereto shall be considered as an integral complementary part of the Rules for Implementation.

### **Article Thirteen**

All persons engaged in productive activities, service or other activities shall take the necessary actions to comply with the regulations. These should be achieved in accordance with environmental standards and criteria issued by the competent agency according to the regulations:

- 13.1 Prevent direct or indirect contamination of surface, ground and coastal waters that may be caused by solid or liquid residues.
  - 13.1.1 Comply with the environmental standards and criteria set forth in the appendices to these Rules and coordinate with the public Agency to ensure their implementation.
  - 13.1.2 To employ the best available technologies and means and take the necessary precautions to avoid contamination of surface, ground and coastal waters; and control and minimize pollution in accordance with the approved environmental criteria.
  - 13.1.3 Remove all forms of contamination of surface, ground or coastal waters resulting from the said activities and bear all the costs of the prevention, control and minimization of





contamination, remediation of the contaminated environment and compensate the affected parties.

- 13.1.4 Prevent the discharge, in any quantity, of any type of solid or liquid wastes, substance, element, organic or inorganic compound that may be classified as hazardous into surface, ground or coastal waters.
- 13.2 Preserve the soil and land and limit its deterioration or contamination.
  - 13.2.1 To take all precautions required to prevent and control contamination and degradation of soil and land, remediate degraded and contaminated soil and use best available means and technologies for this purpose in accordance with the standards and criteria.
  - 13.2.2 Coordinate and cooperate with the Concerned Agency to establish the terms, measures and precautions required to ensure compliance with the environmental standards, criteria and guidelines indicated in the appendices to the Rules for Implementation.
- 13-3 Limit noise particularly when operating machinery and equipment and using horns and loudspeakers which should not exceed allowable environmental standard limits set forth in the rules for implementation.
  - 13-3-1 Coordinate and cooperate with the Concerned Agency to develop and implement the environmental standards, criteria and guidelines for noise pollution and employ best available and possible means to control and reduce the noise level.
  - 13-3-2 Use technologies and equipment with low noise levels in new projects and upgrade technologies and equipment used in existing activities in order to attain allowable noise levels.



## Article Fourteen

- 14.1 Hazardous, poisonous or radioactive wastes are prohibited to enter into the Kingdom of Saudi Arabia including its territorial waters and free economic zone.
- 14.1.1 All agencies and persons shall comply with local regulations, standards, guidelines and instructions concerning the production, exchange, storage, treatment, recycling and transportation of hazardous, toxic or radioactive wastes.
- 14.1.2 The Competent Agency, public and concerned agencies shall abide by the provisions of regional and international agreements and conventions ratified by the Kingdom, and their articles, protocols, and appendices on chemical, toxic, hazardous and radioactive wastes and their cross-border transportation, exchange, storage and disposal methods. Such agreements, conventions, appendices and protocols shall be considered an integral complimentary part of the appendices to these Rules.
- 14.2 Persons in-charge for the production, transportation, storage, recycling, treatment and final disposal of poisonous, hazardous or radioactive materials must comply with the procedures and controls set forth in the rules for implementation.
- 14.2.1 In cooperation and coordination with the concerned agencies, the Competent Agency shall follow up on the implementation of standards, criteria, guidelines and procedures that govern the production, transportation, storage, recycling, treatment or disposal of chemical, toxic and hazardous materials as indicated in appendix 4.
- 14.2.2 Individuals in-charge for the production, transportation, storage, recycling, treatment or final disposal of chemical, toxic, hazardous and radioactive materials shall comply with the licenses issued to them by the concerned agencies and the Competent Agency. In case there is any change in the type of activity, volume or owner, coordination shall be made with the



concerned, licensing agencies and the Competent Agency to obtain the approval required for such change.

- 14.2.3 In cooperation and coordination with the concerned agencies, the Competent Agency shall review and develop the standards, criteria, guidelines and procedures relating to hazardous materials.
- 14.2.4 The concerned agencies and persons shall be fully responsible, as part of their activities and projects, for incidents of environmental pollution with chemical, toxic, hazardous or radioactive wastes and materials during the stages of production, transportation, storage or recycling and for immediately reporting such incidents to the public, concerned and licensing agencies. The party that caused such pollution incident shall bear all the costs of pollution control, abatement, treatment and rehabilitation of the polluted environment as well as and compensation for damages caused by such incidents of pollution.
- 14.2.5 The concerned and public agencies and persons and the Competent Agency shall cooperate and coordinate to develop and implement training programs on the handling, production, transportation, storage, recycling, treatment and disposal of chemical, toxic, hazardous and radioactive wastes and materials.
- 14.2.6 No persons or agencies may dispose of chemical, toxic, hazardous or radioactive materials without a license from the Competent Agency in accordance with the procedures and requirements indicated in Appendix (4).
- 14.3 Any harmful pollutants, poisonous, hazardous or radioactive wastes are prohibited to be disposed off or discharged by vessels or alike in the territorial waters or the free economic zone.
- 14.3.1 The Competent Agency and the concerned and public agencies shall cooperate and coordinate efforts to develop and



implement a national plan to monitor, follow up to prevent vessels from dumping or discharging any harmful pollutants, or chemical, toxic, hazardous or radioactive wastes in the Kingdom's territorial waters or exclusive economic zone.

- 14.3.2 The Competent Agency and the public and concerned agencies shall cooperate and coordinate to support efforts to implement international and regional agreements and conventions to which the Kingdom has signed with regard to the dumping or discharging of any harmful pollutants or chemical, toxic, hazardous or radioactive wastes in the Kingdom's territorial waters or exclusive economic zone.
- 14.3.3 In cooperation and coordination with the concerned agencies, the Competent Agency shall apply the regulations, instructions, agreements and conventions relating to compensation for environmental damages caused by the dumping or discharging of any harmful pollutants or chemical, toxic, hazardous or radioactive materials in the Kingdom's territorial waters or exclusive economic zone and charge agencies and persons responsible for contamination for all costs and losses resulting from monitoring, treatment and control operations as well as costs of the rehabilitation of the contaminated environment.

### **Article Fifteen**

Projects existing at the time of the publication of these regulations shall be given a maximum term of five years as of the date of validity of the regulations in order to reorganize its condition accordingly. If the said term is not sufficient for projects of special nature, an extension may be granted by the decision from the Council of Ministers based on a proposal by the competent minister.

- 15.1 In cooperation and coordination with the Competent Agency, the concerned and licensing agencies shall conduct an (environmental review) of the current environmental situation of existing projects, prepare an implementation plan to mitigate



or gradually prevent the adverse environmental impacts of such projects within the grace period specified by the Regulations.

- 15.2 Existing projects shall implement all implementation plans prepared by the concerned and licensing agencies in cooperation and coordination with the Competent Agency to rearrange their status of compliance in accordance with the Rules for Implementation.
- 15.3 Existing projects shall prepare a phased plan to rectify their status in a manner that guarantees compliance with environmental standards, criteria and guidelines within the specified grace period and shall provide to the licensing agency and the Competent Agency such a plan in addition to a periodical report indicating the extent of their compliance with implementation procedures to rectify the status.
- 15.4 The public agency, in coordination with the competent agency, and ensuring the conservation of environment and prevent its deterioration according to the mechanism indicated in Article 15 of the Regulations, shall take all necessary procedures to ensure surveillance of existing projects.
- 15.5 The concerned and public agencies and persons responsible for or supervising existing projects of special nature shall respect the grace period specified in these Regulations to rectify their compliance status. However, if it becomes apparent to the Competent Agency, in coordination with the concerned agencies, that the grace period granted to projects of special nature is insufficient not enough for rectifying their status and meeting the environmental requirements, the Competent Minister may submit to the Council of Ministers to extend the grace period appropriately.



### **Article Sixteen**

Commitment to environmental protection regulations and standards must be a pre-requisite for receiving loans for projects from lending agencies.

Pursuant to Article XVI of these Regulations, lending agencies should:

- 16.1 Oblige owners of new projects to submit, as part of the feasibility study, an environmental assessment study, which should demonstrate compliance with environmental regulations and standards. This shall be considered a basic prerequisite for loan approval.
- 16.2 Oblige project owners to abide by environmental regulations, standards, criteria and guidelines at all stages of preparation, construction and operation of the project, and to consider this as a basic prerequisite for the payment of loan installments.
- 16.3 Oblige owners of existing projects who request loans for modifying or expanding their projects to submit an environmental assessment study that demonstrates compliance with environmental regulations, standards, criteria and guidelines and to consider this as a basic prerequisite for approving loans and their installments.



## CHAPTER 3

### Violations and Penalties

#### Article Seventeen

- 17.1 When the competent agency is certain that any of the environmental criteria and standards have been violated, it should coordinate with the agencies concerned and obligate the violator to do the following.
- (b) Eliminate any negative impact, terminate the process and rectify the damage, within a specified time, as required by the environmental criteria and standards.
  - (c) Submit a report showing the steps taken by violator to prevent recurrence of violations of criteria and standards in the future provided that these steps are approved by the competent agency.

The following cases shall be considered violations and contraventions of the provisions of these Regulations after coordination with the concerned and licensing agencies:

- 17.1.1 Violation of any environmental standard, condition or guideline set forth in Appendix (1).
- 17.1.2 Failure to promptly report pollution incidents, the adverse impacts of project operation or the exceedance of the environmental standards included in Appendix (1).
- 17.1.3 Failure to comply with any of the steps or procedures specified by the Competent Agency to halt, remove and treat the effects and prevent recurrence of the violations.
- 17.1.4 Failure to comply with the period specified by the Competent Agency in coordination with the relevant agency to halt and eliminate adverse impacts and to treat the effects of violations.



- 17.1.5 Withholding environmental information from the Competent or Public Agency in the event of a violation of any of the standards and conditions or providing incorrect or in-factual information or measurements of environmental parameters.
- 17.1.6 Impeding or preventing employees designated by a decision of the Competent Agency from performing their duties set forth in the regulations.
- 17.1.7 Tampering with the measurement, detection, monitoring and control equipment and interfering with their work and operation.
- 17.1.8 Failure to comply with the requirement of developing and activating an environmental contingency plan to respond to pollution accidents and failure to provide the personnel, devices and equipment required for the operation and implementation of the contingency plans or failure to conduct the periodic maintenance programs required for such devices and equipment.
- 17.1.9 Any other cases that may develop or be approved by the Competent Agency in coordination with concerned or licensing agencies.
- 17.2 If the situation is not rectified according to the above, the competent agency shall in coordination with the concerned agencies or the licensing agencies, take necessary action to oblige the violator to correct the situation pursuant to the provisions of these regulations.
- 17.2.1 In coordination with the concerned and licensing agencies, the Competent Agency shall take the necessary actions to force the violator to rectify the situation resulting from the violations mentioned in Paragraph (1) of Article 17 of the regulations as well as their environmental impacts and complications and bear all costs incurred to remove such damage.





- 17.2.2 The Competent Minister may define and identify projects of special nature which shall be subject to the required grace period given to rectify their conditions in accordance with the provisions of these Regulations and its Rules for implementation.

### **Article Eighteen**

- 18.1 Taking into consideration Article (230) of UN Marine Convention ratified by Royal Decree No. (M/17) dated 11 Ramadan 1416 and without prejudice to any severe penalty imposed by Islamic laws or provided for in other regulations, whoever violated the provisions of Article fourteen shall be punished by imprisonment for a term not exceeding five years or a monetary fine not exceeding Saudi Riyals 500,000 or both. An appropriate compensation shall be ordered and the violator shall be obligated to eliminate the violation. The plant may be closed or the vessel detained for a period not exceeding ninety days. In case of recurrence, the maximum limit of imprisonment shall be raised but may not exceed double the initial term or the maximum limit of the fine shall be increased but may not exceed double the initial fine or both. An appropriate compensation shall be ordered and the violator shall be obligated to eliminate the violation. The plant may be temporarily or permanently closed or the vessel temporarily detained or confiscated.
- 18.1.1 If the toxic, chemical, hazardous or radioactive wastes brought into the Kingdom or its territorial waters or exclusive economic zone should cause any environmental, health or alike, the violator shall be required to remove the violation and bear all the costs arising from its adverse impacts.
- 18.1.2 If the concerned agencies conclude that the toxic, chemical, hazardous or radioactive wastes were brought, or were attempted to be brought into the Kingdom, its territorial waters or exclusive economic zone with the intent of undermining the



Kingdom's national security, or that such act is of a criminal nature, the violator shall be turned over to the competent security agencies to inflict the penalties set forth in the regulations prevalent in the Kingdom.

- 18.1.3 All agencies shall be obliged to implement procedures and controls specified in these Rules which regulates the production, transport, storage, recycling, treatment or final disposal of toxic, chemical, hazardous or radioactive materials, the violator shall bear all costs that have resulted or may result from his failure to comply with these procedures and controls. If such an act causes loss of life or permanent deformities or disabilities, the violator shall be sent to the concerned agency to inflict on him appropriate penalties and fines according to the rules, procedures and regulations set forth in the regulations.
- 18.2 Without prejudice to any severe penalty imposed by other regulations, he who violates any of the terms of other articles shall be subject to a monetary fine not to exceed Saudi Riyals 10,000 and the violator shall be obligated to rectify the violation. In case of recurrence, the violator shall be punished by imposing an increased maximum limit of the fine that may not exceed double the initial penalty and shall be required to rectify the violation. The plant may be closed for a period not exceeding ninety days.
- 18.2.1 All persons who impede, refuse to provide assistance or prevent employees specified in Article Nineteen of the regulations from performing their assigned duties shall be fined as provided for in the attached schedule. In coordination with the concerned agencies and persons, the Competent Agency shall issue and dispatch warning notice to the person causing above mentioned acts and take all necessary procedures to prevent its recurrence.
- 18.2.2 Without prejudice to any greater penalty stipulated in any other regulations, violators of any environmental standard or criterion shall be fined an amount not to exceed SR 10,000 for



the violation of each environmental standard or condition set forth in Appendix (1).

- 18.2.3 Violators of the provisions of Paragraph 17.1.2 hereof shall be subject to a fine not exceeding SR 10,000 and shall bear all costs and losses resulting from their failure to promptly report pollution incidents, the adverse impacts of project operation or to the exceedances of environmental standards and conditions specified in Appendix (1).
- 18.2.4 Violators of the provisions of Paragraph 17.1.3 hereof shall be subject to a fine not exceeding SR 10,000 and shall bear all costs and losses resulting from their failure to comply with the steps and procedures specified by the Competent Agency to eliminate damages or violations of environmental standards and conditions specified in Appendix (1).
- 18.2.5 Violators of the provisions of Paragraph 17.1.4 hereof shall be penalized a fine of an amount not exceeding SR 10,000 and shall bear all costs resulting from their failure to remove violations and their resulting impacts and complications on the environment.
- 18.2.6 Violators of the provisions of Paragraph 17.1.5 hereof shall be penalized a fine not exceeding SR 10,000.
- 18.2.7 If the Competent Agency concludes that such violator of environmental standards, criteria and instructions as indicated in the paragraphs of Article Seventeen hereof is unable to halt, limit or prevent the violations, the Competent Agency may, in coordination with the concerned agencies, take the necessary and appropriate actions in the most appropriate way to shut down the facility for a period to be specified by the Competent Agency in coordination with the concerned agency provided however, that such a period shall not exceed 90 days. The violator shall take all the necessary and sufficient actions to halt the environmental damages resulting from violating the environmental standards, conditions and guidelines and bear all costs of removal of such damages.



- 18.2.8 Violators of the provisions of paragraphs 2,3 and 4 of Article Nine of the regulations and paragraph 17.1.8 hereof shall be penalized a fine not exceeding SR 10,000 and be required to comply with and implement the provisions of Article 9 within the period specified by the Competent Agency in coordination with the concerned agency.
- 18.2.9 If the Committee formed by paragraph 2 of Article 20 of the regulations concludes that the environmental violation involves several simultaneous violations, the committee has the authority to impose fines specified for each and all violations simultaneously.
- 18.2.10 If the Competent Agency concludes that a violator of the environmental standards and conditions has continuous or discontinuous violations, the committee formed by paragraph 2 of Article 20 of the regulations has the authority to increase the upper limit of the fine in the condition not to exceed the double of the limit and oblige the violator to remove the violation in addition to shut the facility for a period not exceeding ninety (90) days.

### **Article Nineteen**

Competent agency shall designate staff to report violations to these regulations and bylaws. Rules for implementation shall specify procedures to be followed in reporting and documenting violations.

#### **Violation Reporting Procedures:**

Violation reporting procedures shall include several actions, such as:

#### **First: Inspection and Monitoring Operations**

These operations shall be conducted by specialist trained teams which include inspection and contamination detection, and land, marine and air monitoring teams. The Competent Agency shall issue a decision



designating such teams and provide them with identification cards and the necessary devices and equipment required to perform their duties.

### **Second: Automatic Detection Operations**

These monitoring operations shall be conducted using networks of automatic detection and observation units available in the facilities and plants and which are operated by the projects. Information related to these projects and facilities shall be transmitted to one of the Competent, Concerned or Licensing agencies, according to a mechanism that has been agreed upon between these agencies, to review in order to determine violations and measure compliance with environmental standards.

### **Third: Notifications**

The Competent Agency shall receive contamination notifications or any other notifications relating to violations of the provisions of the Regulations from concerned agencies and persons. The inspection and monitoring teams shall verify such notifications, conduct follow up and monitoring operations, take necessary actions and prepare the required initial evaluation reports.

### **Fourth: International and Regional Reports**

In cases of environmental pollution caused by sources outside Saudi Arabian boundaries and territorial waters, the Competent Agency shall receive contamination reports through regional and international organizations, programs and agencies. The Competent Agency shall implement the national contingency plans for the abatement of pollution as well as carry out the necessary air, land and marine monitoring and observation and follow-up and take necessary actions.

### **Fifth: Observation Using Satellites and Remote Sensing Devices**



The Competent Agency shall receive satellite images and remote sensing output from the concerned agencies and specialized regional and international organizations, agencies and programs and conduct analysis, comparison and verification of environmental pollution sources and deterioration cases.

#### **Sixth: Reporting Forms**

The competent, public and licensing agencies shall, based on sample analysis results, monitoring and detection forms and instrumentation readings, and after implementing quality control programs for analysis and results, take necessary action according to the regulations concerning the site(s) pollution incidents, and source(s) of pollution therein.

#### **Seventh: Report of Environmental Violations and Transportation, Entering and Smuggling of Hazardous Materials across Borders**

These reports include the detection records of environmental violations, records for the entry into the Kingdom of toxic, chemical, hazardous or radioactive materials through land, sea or air inlets, of materials with no transit permit across the Kingdom's territories from the concerned agencies, records of detection of acts of smuggling or entry of hazardous wastes across land or sea borders or dumping or spilling of such materials in Saudi territorial waters.

#### **Eighth: Coordination and Cooperation:**

The Competent Agency shall coordinate and cooperate with the concerned, public and licensing agencies in some or all of the reporting operations and procedures. The Competent Agency may also authorize public or concerned agencies or persons to implement some of these procedures.



### **Ninth: Documentation**

The Competent Agency shall develop the databases for documenting environmental data and information, violations and their sources and causes and prepare the files that shall include environmental violations of Article Fourteen of the regulations for submission to the Grievance Board to inflict the penalties contemplated by paragraph 1 of Article Eighteen of the regulations.

### **Tenth: Follow up:**

In cooperation with the concerned and licensing agencies, the Competent Agency shall follow up on incidents of environmental violations and its progress, repetition of the violations, effectiveness of the methods and approach used to abate and remediate the damaged environments.

## **Article Twenty**

- 20.1 Grievance Board shall have the jurisdiction to apply penalties set forth in paragraph (1) of Article Eighteen on violators of terms of Article Fourteen of these regulations.
  - 20.1.1 The Competent Agency shall coordinate with the concerned agencies to report violators of the provisions of Article Fourteen and submit details of such violations to the Grievance Board to impose the penalties set forth in paragraph 1 of Article Eighteen of the regulations.
  - 20.1.2 Penalty recipients under paragraph 1 of Article Eighteen for any violation of Article Fourteen may file a complaint with the Grievance Board within sixty days from the date of their notification of the penalty. If such a complaint is not made within the specified period, their right to grievance shall lapse and the stipulated penalty shall be applicable as of its date of issuance.



- 20.1.3 If it becomes apparent to the Competent Agency that the violation of Article XIV has persistent and accumulative environmental, health and social impacts, the matter shall be submitted to the Grievance Board in coordination with the concerned agency to estimate the resulting damages and the penalty or penalties to be imposed on the violator proportional to the negative impact on environment, health and society.
- 20.2 Subject to paragraph (1) of this Article, one or more committees shall be formed by a decision of the concerned Minister comprising of three members each with at least one specialized in the regulations into look the violations and apply penalties set forth herein. Decisions of the committee shall be issued by majority vote of its members and authorized by the concerned minister.
- 20.2.1 Pursuant to paragraph 2 of Article Eighteen of the regulations, and taking into consideration provisions of paragraph 1 of Article Eighteen, the Competent Agency shall form competent committees to review violations and determine the penalties as set forth in the Schedule of Penalties attached to these Rules. Such committees shall be formed by a decision of the Competent Minister and their decisions shall be made by majority vote and approved by the Competent Minister.
- 20.2.2. Those penalized by a decision of the committee(s) may file a complaint with the Grievance Board within sixty (60) days from the date of their notification of the penalty decision. Otherwise, their right to grievance shall lapse.

### **Article Twenty One**

The committee set forth in paragraph (2) of Article Twenty may order, if necessary, an immediate rectification of the violation without awaiting issuance of a decision from the Grievance Board in respect to the petition or the case depending on the circumstances.





- 21.1. If the committee contemplated in paragraph 2 of Article Twenty of the Environmental regulations concludes that the environmental violation committed is of major environmental, health, social and economic impacts, and that failure to promptly and immediately remove it will aggravate such impacts, the committee may order the violation removed immediately as per the environmental provisions it deems appropriate, at the violator's expense and without waiting for the Grievance Board's decision in the grievance or case.
- 21.2. Costs paid or losses incurred by the violator to remove the violation at the competent committee's request shall not be considered part of the fines or compensations imposed for the violation. The Competent Agency has the right to coordinate with the concerned agencies to determine the appropriate compensations for environmental, economic, health and social losses caused by the violation.
- 21.3. If the Competent Agency or the competent committee concludes that the violator does not possess the technical capabilities required to remove the violation, the Competent Agency in coordination with the concerned agencies may assign qualified agencies or persons to remove the violation in accordance with the provisions stipulated by it and within the prescribed period, and the violator shall pay all costs arising from the removal of the violation.



## **Chapter 4**

### **General Provisions**

#### **Article Twenty Two**

The competent agency shall establish the rules for implementation of these regulations in coordination with the concerned agencies. These rules shall be issued by decision from the concerned minister within a year from the date of publication of these regulations.

- 22.1. The Competent Agency is the responsible agency for the interpretation of the articles and paragraphs of the Rules for Implementation of General Regulations on Environment and their appendices.
- 22.2. In coordination with the concerned agencies, the Competent Agency may develop, amend or modify any paragraph of the Rules for Implementation and their appendices whenever deemed necessary, which shall be promulgated by a decision of the Competent Minister.



**Appendix-1**

**Environmental Protection Standards**

**Presidency of Meteorology and Environment**

**Kingdom of Saudi Arabia**

**Document No.1409-01**



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12-b-4 Biological Parameters

**13 Performance Standards for Direct Discharge**

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- 13-b Scope
- 13-c General Performance Standards
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  - 13-d-1 Physico-chemical Parameters
  - 13-d-2 Organic Parameters
  - 13-d-3 Inorganic Parameters
  - 13-d-4 Biological Parameters
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**14 Pretreatment Guidelines for Discharge to Central Treatment Facilities**

- 14-a Purpose
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- 14-c General Pretreatment Guidelines
- 14-d Specific Pretreatment Guidelines
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  - 14-d-3 Inorganic Parameters

**15 Obligations**

**16 Enforcement**



Pursuant to the Royal Decree No. 7/M/8903 dated 21 Rabi' II 1401 H (25 February 1981), which assigned the Presidency of Meteorology and Environment for the control of pollution and protection of environment in accordance with the arrangement set forth in the Decision of the Supreme Commission For Administrative Reform No. 86 dated 20 Sha'ban 1399 H (14 July 1979), the Presidency has established the following standards.

**1-Name:**

These standards shall be called “The Environmental Protection Standards”

**2- Purpose:**

The purpose of these standards is to provide appropriate bases for the evaluation and regulation of existing industrial and urban activities in the Kingdom of Saudi Arabia and to help in the planning, design, implementation and operation of the facilities to be established in future in a manner which shall not adversely affect the health, safety and welfare of the people and which shall help in promoting their overall economic and social well-being and protect the Kingdom's environment in general.

**3- Effective date:**

These standards became effective as of 01 D. Qa'dah 1402 H (20 August 1982).

**4- Definitions:**

Except where the text requires otherwise, the words and expressions listed below shall have the definitions given against each:

1. The Presidency: shall mean the Presidency of Meteorology and Environment, instituted by Royal Decree No. 7/M/8903, dated 21 Rabi' I 1401 [25 February 1981].



2. Environmental Protection General Standards: means the standards that express the general policy for control of pollution in the Kingdom and apply to the design and operation of facilities.
3. Environmental quality standards: means the limits of air, water and land pollution that should not be exceeded.
4. Source standards: means pollution control technologies and operational practices which reduce pollution from a facility. emissions from facilities. They also include discharge of pollutants from sources.
5. Guidelines: guidelines are not standards and are adopted in cases where baseline information is not sufficient for the issuance of specific standards at the respective time.
6. Facility: means any installation or activity expected to be a source of pollution or environmental deterioration.
7. Major facility: means a facility with sufficient capacity to cause a substantial impact on the quality of ambient air or water.
8. Public facility: means any facility owned or operated by any ministry, department, government or semi government unit, regardless of its size or function.
9. Private facility: means any facility owned or operated by a natural or legal organization or person, whether corporate or not.
10. Modification (i.e. of facilities): means any change made in the design or operation of a facility which has the potential to result in increased pollution from the facility. For the purposes of this definition, an equivalent replacement in terms of type and capacity is not considered a modification.
11. Major modification: means any change in the design or operation of an existing facility with a reasonable likelihood of causing a substantial impact on the quality of ambient air or water. For the purposes of this definition, an equivalent replacement in terms of type and capacity is not considered a major modification.
12. Substantial impact: means any impact with a reasonable likelihood of causing exceedance of the applicable standards alone or in combination with the impact of the other sources.





13. Medium impact: an impact with a reasonable likelihood to cause exceedance of the applicable standards only in combination with the impact of other sources.
14. Minor impact: any impact which is not likely to cause exceedance of the applicable standards whether on its own or in combination with the impact of other sources.
15. Toxic Substances: means any substance which can cause death, disability or discomfort to man or animal when available in sufficient quantities, either by contact, inhalation or oral ingestion, taking into consideration the concentration of such a substance in the food chain, or such a substance that may cause damage or destruction to plants or animals by contact or when entering into its food.
16. Inhalable suspended particulate: for the purposes of these standards, the inhalable suspended particulate shall be considered as any substance dispersed in the atmosphere in the form of individual solid or liquid suspended particles with less than 15 micron diameter.
17. Photochemical oxidants: means substances produced in the atmosphere where as a result of exposure of certain active chemical compounds, principally the hydrocarbons and nitrogen oxides, to sunlight. For the purpose of these standards, the photochemical oxidants shall include the ozone, peroxyacyl nitrates, organic peroxides and other oxidants which contribute to the increase of oxidants concentration as measured by the method specified in paragraph C of Article 11.
18. Receiving water: means a surface water body into which pollutants are or may be directly discharged.
19. Waste water: means any contaminated water resulting from industrial or agricultural operations or any other activities which are of equivalent environmental impact, including sanitary wastewater.
20. Mixing Zone: it is a defined area of water directly adjacent to an area for discharging contaminants where the receiving water quality standards may be exceeded and such an area is determined pursuant to paragraph E of Article 13.



21. Pretreatment: means the stage of application of controls to waste water in industrial areas prior to its discharge to a central treatment facilities.
22. Discharge: means addition of contaminants to the ambient air, receiving water or to a central treatment facility.
23. Direct discharge: means a discharge to receiving waters and not to a central treatment facility.
24. Best available technology: means the best available level of pollution control in comparison to practices in similar facilities in the Kingdom and other countries.

#### **5- Applicability:**

These standards shall apply to all facilities in the Kingdom, existing and newly designed, public and private, with the exception of facilities specifically exempted by the Presidency of Meteorology and Environment.

#### **6- Scope and Interpretation:**

1. These standards consist of the rules appearing herein, including any detailed description of the environmental protection standards and methods of application as issued by the Presidency from time to time.
2. The Presidency shall be the only authority to interpret and determine the meaning and scope of these standards.
3. The Presidency reserves the right to amend or otherwise supplement these standards as required.

#### **7- General Environmental Protection Standards For New Facilities:**

1. All new major facilities as well as major modifications to existing facilities shall be designed, operated and maintained so as to avoid exceedances of the ambient environmental standards as promulgated for the Kingdom at the time of approval of the design.
2. Each new major facility or major modification of an existing facility shall incorporate the best available technology for



control of pollutant discharges and for the disposal of wastes resulting from the operation of the facility.

3. All new facilities and modifications of an existing facility shall be designed and operated so as to avoid the discharge of any toxic substance, whether specifically regulated or not, in sufficient quantities to be harmful to public health.

### **8- General Environmental Protection Standards Applicable to Existing Facilities:**

1. All existing major facilities shall be operated and maintained so as to avoid exceedances of the ambient environmental standards promulgated for the Kingdom. Additional control technology shall be installed where necessary so as to avoid exceedance of the ambient environmental standards.
2. All existing facilities shall be operated and maintained so as to avoid the discharge of any toxic substance, whether specifically regulated or not, in quantities sufficient to be harmful to public health.

### **9- Exceptions:**

The Presidency reserves the authority to grant certain facilities, under special circumstances, an exemption from the application of some source or performance standards. The Presidency shall evaluate the application submitted by the owner of any facility for obtaining an exemption from the application of any specific standard. The Presidency shall make its decision on a case by case basis after the owner submits all the required information related to the said matter and after ensuring that such an exception shall not result in exceeding the environmental quality standards and is not detrimental to the public health.

### **10- Air Quality Standards:**

#### **10-A Sulfur dioxide (SO<sub>2</sub>):**



### A-1- Purpose:

The purpose of these standards is to prevent adverse effects on human health and vegetation.

### A-2- Standards:

- (a) During any 30 day period, one hour average SO<sub>2</sub> shall not exceed 730 microgram/m<sup>3</sup> (0.28 ppm) more than twice at any location.
- (b) During any 12 months period, 24 hour average SO<sub>2</sub> shall not exceed 365 microgram/m<sup>3</sup> (0.14 ppm) more than once at any location.
- (c) During any 12 months period, the annual average SO<sub>2</sub> shall not exceed 80 microgram/m<sup>3</sup> (0.03 ppm) at any location.

### A-3- Measurement Method:

Pararosaniline method (World Health Organization 1976) shall be the reference method of measurement for sulfur dioxide concentration. The Presidency shall be responsible for approving equivalent measurement methods.

### 10-B Inhalable Suspended Particulates:

#### B-1- Purpose:

The purpose of these standards is to protect the susceptible populations from adverse health effects, taking into account the synergistic effects associated with the presence of other pollutants.

#### B-2- Standards:

1. During any 12 month period, 24 hour maximum inhalable suspended particulate concentration shall not exceed 340 microgram/m<sup>3</sup> more than once at any location.



2. During any 12 month period, the average annual inhalable suspended particulate concentration shall not exceed 80 microgram/m<sup>3</sup> at any location.

Note: Exceeding the 24 hours or annual inhalable suspended particulate standard because of abnormal natural background concentrations shall not be considered a violation of the designated standard.

#### B-3- Measurement Method:

The inhalable suspended particulates concentration shall be determined by use of a size selective high volume sampler. The specifications for the equipment and the filter media must be compatible with the standards acceptable to the Presidency.

### **10-C- Photochemical Oxidants Defined as Ozone:**

#### C-1- Purpose:

The purpose of this standard is to prevent significant human discomfort or damage to vegetation and materials.

#### C-2- Standards:

During any 30 day period, one hour average concentration of Photochemical oxidants shall not exceed 295 microgram/cubic meter (0.15 ppm) more than twice at any location.

#### C-3- Method of measurement:

Chemi-luminescence method (WHO 1976) shall be the reference method for measuring photochemical oxidants as ozone. The Presidency shall be responsible for approving equivalent methods of measurement.

### **10-D- Nitrogen oxides defined as nitrogen dioxide(NO<sub>2</sub>):**

#### D-1- Purpose:

The purpose of these standards is to prevent development of nitrogen dioxide concentrations which could produce adverse health effects or



lead to the production of significant concentrations of photochemical oxidants.

D-2- Standards:

- (a) During any 30 day period, one hour average NO<sub>2</sub> concentration shall not exceed 660 microgram/cubic meter (0.35 ppm) more than twice at any location.
- (b) During any 12 months period, the annual NO<sub>2</sub> concentration shall not exceed 100 microgram/cubic meter at any location.

D-3- Method of measurement:

An NO<sub>2</sub> analyzer based on the gas phase chemi-luminescence measurement principle of nitrogen monoxide and ozone is the designated reference method. The specifications of the measurement equipment shall conform with the standards acceptable to the Presidency.

**10-E Carbon monoxide:**

E-1-Purpose:

The purpose of these standards is to prevent short term adverse health effects in sensitive population groups and in normal exercising population groups.

E-2- Standards:

- (a) During any 30 day period. One hour average Carbon monoxide concentration shall not exceed 40 milligram/cubic meter (35 ppm) more than twice at any location.
- (b) During any 30 day period. Eight (08) hour average Carbon monoxide concentration shall not exceed 10 milligram/cubic meter (09 ppm) more than twice at any location.

E-3- Method of measurement:

Non-dispersive infrared (NDIR) technique (WHO, 1972) will be the reference method for measuring carbon monoxide. The Presidency shall be responsible for approving equivalent methods of measurement.



### **10-f- Hydrogen sulfide (H<sub>2</sub>S):**

#### **F-1- Purpose:**

The purpose of these standard is to protect human and animal health and to avoid the nuisance resulting from exposure to hydrogen sulfide (these standards will not completely prevent material damage; therefore, special materials preservation steps should be taken in regions where elevated H<sub>2</sub>S levels are expected).

#### **F-2- Standards:**

- (a) During any 12 months period, One hour average H<sub>2</sub>S concentration shall not exceed 200 microgram/cubic meter (0.14 ppm) more than once at any location.
- (b) During any 12 months period, 24 hour average H<sub>2</sub>S concentration shall not exceed 40 microgram/cubic meter (0.03 ppm) more than once at any location.

#### **F-3 Method of measurement:**

Gas bubbler methylene blue method (APHA 1972) shall be the reference method used for measuring hydrogen sulfide. The Presidency shall be responsible for approving equivalent methods of measurement.

### **10-G- Fluorides (F<sup>-</sup>):**

#### **G-1- Purpose:**

The purpose of this standard is to protect against adverse effects on vegetation and grazing animals.

#### **G-2- Standards:**

During any 30 day period, the monthly average fluoride concentrations shall not exceed 1.0 microgram/cubic meter (0.001 ppm) at any location.

#### **G-3- Method of measurement:**



Specific ion electrode method (Thomson et al, 1971) shall be the reference method to measure fluorides. The Presidency shall be responsible for approving equivalent methods of measurement.

### **11-Air Pollution Source Standards:**

#### **11-A- Combustion Facilities:**

All fossil fuel fired boilers and furnaces having a heat input capacity equal to or greater than 30 MW (100 MBTU/hour) shall utilize appropriate gas cleaning equipment to limit emissions to the following rates:

- (1) 43 ng/j (0.1 lb/MBTU) of total particulates.
- (2) 1 microgram/joule (2.3 lb/MBTU) of sulfur dioxide.
- (3) 130 ng/j (0.3 lb/MBTU) of NO<sub>x</sub> for oil fired facilities.
- (4) 86 ng/j (0.2 lb/MBTU) of NO<sub>x</sub> for gas fired facilities.

### **11-B-Petroleum and petrochemical facilities:**

#### **B-1- Storage Vessels for petroleum liquid:**

Storage vessels for volatile organic compounds (VOC) which have a capacity greater than 1000 barrels (5614 cubic feet) shall be equipped with vapor emission control system as follows:

- (a) Vapor recovery or equivalent systems are required for volatile organic compounds (VOC) having a vapor pressure in excess of 570 mm Hg. Floating roof tanks shall be considered adequate for crude oil storage providing that a consistent seal inspection and reporting program is implemented by the owner.
- (b) Floating roof with double boot seal or equivalent systems are required for VOC having a vapor pressure in excess of 78 mm Hg (1.5 psi) but less than 570 mm Hg (11 psi).

#### **B-2- FCC Unit Catalyst Regenerators:**

FCC unit catalyst regenerators shall utilize:

- (a) Carbon monoxide boilers or high temperature regeneration to limit carbon monoxide emissions to 500 ppm and;





(b) Appropriate air cleaners to limit particulate emissions to 1.0 kg per metric ton of coke burn off.

**B-3- Fuel Gas Combustion Process:**

Fuel gas combustion processes shall utilize amine scrubbing or other appropriate gas cleaning process to limit hydrogen sulfide content of fuel gases to 230 milligrams/dry standard cubic metre (150 ppm).

**B-4- Claus Sulfur Recovery Plants:**

Sulfur recovery plants shall utilize a two or three stage Claus process to achieve at least 95% recovery of total sulfur.

**B-5- Fugitive Emissions:**

Fugitive emissions of VOC from Petroleum and Petrochemical processes shall be limited through the utilization of good maintenance and inspection procedures as well as monitoring of potential VOC emission points.

**11-C- Fertilizers plants:**

Fertilizer plants purge gases shall be controlled by incineration or other acceptable cleaning methods to ensure 99% removal of volatile organic compounds.

**11-D- Cement Plants:**

**D-1 Cement Kilns:**

Emissions from cement kilns shall be controlled by means of electrostatic precipitators, fabric filters or other suitable devices to limit the emission of particulates to no more than 0.15 kg per metric ton of product.

**D-2- Clinker Coolers:**

Emissions from clinker coolers shall be controlled by means of fabric filters or other suitable devices to limit the emission of particulates to no more than 0.05 kg per metric ton of product.

**11-E- Primary Aluminum Reduction Plants:**

**E-1- Pot Lines:**

Emissions from aluminum reduction pot lines shall be controlled by means of suitable air cleaning equipment to limit the emission of total fluorides to no more than 1.25 kg per metric ton of product.

**E-2- Anode Bake Plants** (plus Pole Heating Plants):

Emissions from anode bake plants (plus pole heating plants) shall be controlled by means of suitable air cleaning equipment to limit the emission of total fluorides to no more than 0.05 kg per metric ton.

**11-F- Iron and steel plants: Electric Arc Furnaces:**

Emissions from electric arc furnaces shall be controlled by means of suitable gas cleaning equipment to limit the emission of particulate to 12 milligram per dry standard cubic meter (dscm).

**11-G- Lime Manufacturing Plants: Rotary Kilns:**

Emissions from rotary kilns shall be controlled by means of suitable gas cleaning equipment to limit the emission of particulates to no more than 0.2 kg per metric ton of limestone feed material.

**11-H- Visible Emissions From Industrial Activities:**

Visible emissions from all industrial activities (except water vapor) shall be controlled to a 20% maximum opacity, except for 3 minutes during any continuous sixty minute period.

**12- Receiving Water Guidelines:****12-A- Purpose:**

These guidelines for receiving water quality are intended to provide guidance for the location, design and operation of new facilities and modifications to existing facilities, and for the operation of existing facilities, pending development of receiving water standards.

**12-B- Guidelines:**

The following guidelines for receiving water quality apply at the edge of the mixing zone and beyond for the discharge from any facility to the coastal waters. Unless otherwise stated, each interim guideline refers to a thirty (30) day average.



**B-1- Physiochemical Pollutants:**

<b><u>(Pollutants)</u></b>	<b><u>(Guidelines at the edge of the mixing zone)</u></b>
(a) Floatables	Non-attributable to the discharge
(b) pH	0.1 pH units (maximum change from typical local baseline conditions)
(c) Total suspended solids (TSS)	5% (all percentages referred to in this and the following paragraphs indicate the maximum allowable variations in comparison with local baseline conditions)
(d) Temperature	1°C (maximum variation from typical local baseline conditions)
(e) Oil and grease	Management measures required*
(f) Dissolved oxygen (DO)	5%
(g) Turbidity	5%

\*Facilities using, transferring or storing oil and petroleum hydrocarbons are required to prepare, maintain and update a spill prevention, control and clean up plan.

**B-2- Organic Pollutants:**

<b><u>(Pollutant)</u></b>	<b><u>(Guidelines at the edge of the mixing zone)</u></b>
(a) Chemical Oxygen Demand (COD)	5%
(b) Total Organic Carbon (TOC)	5%
(c) Total Kjeldahl Nitrogen (TKN)	5%
(d) Chlorinated Hydrocarbons	5%
(e) Oil and Grease	5%
(f) Phenolics	5%



### **B-3- Inorganic Pollutants:**

<b><u>(Pollutant)</u></b>	<b><u>(Guidelines at the edge of the mixing zone)</u></b>
(a) Ammonia	5%
(b) Arsenic	5%
(c) Cadmium	5%
(d) Chloride	5%
(e) Residual chlorine	5%
(f) Total chromium	5%
(g) Copper	5%
(h) Total cyanide	5%
(i) Lead	5%
(j) Mercury	5%
(k) Nickel	5%
(l) Total phosphate	5%
(m) Zinc	5%
(n) Dissolved oxygen	5%

### **B-4- Biological Pollutants:**

<b><u>(Pollutant)</u></b>	<b><u>(Guidelines at the edge of the mixing zone)</u></b>
(a) Total Coliform	70 most probable number (MPN) per 100 ml (average for 30 day period)

### **13- Performance Standards For Direct Discharge:**

#### A- Purpose:

The performance standards for direct discharge are intended to require waste water source to adopt the best practical controls.

#### B- Scope:

The performance standards for direct discharge apply to sanitary sewage, surface runoff (including fire control water), cooling water discharges, boiler water blow-down, process waste water and any other waste water.



### C- General Performance Standards:

Waste waters of different characteristics shall be segregated to the maximum extent possible. Uncontaminated surface runoff and once through cooling waters may be discharged into receiving waters without treatment.

### D- Specific Performance Standards:

The following performance standards shall apply to waste water at the end of the outfall but before discharge to coastal waters or to any waste water channel.

#### **D-1- Physiochemical properties:**

##### **(Pollutants)**

- (a) Floatables
- (b) pH
- (c) Total suspended solids (TSS)
- (d) Temperature

##### **(Allowable Effluent levels)**

- None
- 6-9 pH units
- 15 mg/liter (maximum limit)
- The Presidency will determine the thermal properties of the discharged water to fit the properties of the receiving water on a case by case basis
- 75 NTU (max)

- (e) Turbidity

#### **D-2- Organic Pollutants:**

##### **(Pollutant)**

- (a) Biochemical Oxygen Demand (BOD)
- (b) Chemical Oxygen Demand (COD)
- (c) Total Organic Carbon (TOC)
- (d) Total Kjeldahl Nitrogen (TKN)
- (e) Total Chlorinated Hydrocarbons
- (f) Oil and Grease
- (g) Phenols

##### **(Allowable Effluent Level (30 day average))**

- 25 mg/liter
- 150 mg/liter
- 50 mg/liter
- 5 mg/liter
- 0.1 mg/ liter
- 8 mg/liter (not exceed 15 mg/liter in any individual discharge)
- 0.1 mg/liter



### **D-3- Inorganic Pollutants:**

<b><u>(Pollutant)</u></b>	<b><u>(Allowable Effluent Level (30 day average))</u></b>
(a) Ammonia (as nitrogen)	1.0 mg/ liter
(b) Arsenic	0.1 mg/liter
(c) Cadmium	0.02 mg/liter
(d) Chlorine (residual)	0.5 mg/liter
(e) Chromium (total)	0.1 mg/liter
(f) Copper	0.2 mg/liter
(g) Cyanide	0.05 mg/liter
(h) Lead	0.1 mg/liter
(i) Mercury	0.001mg/liter
(j) Nickel	0.2 mg/liter
(k) Phosphate (total as phosphorous)	1.0 mg/liter
(l) zinc	1.0 mg/liter

### **D-4- Biological Pollutants:**

<b><u>(Pollutant)</u></b>	<b><u>(Allowable Effluent Level (30 day average))</u></b>
(a) Total Coliform	1000 most probable number (MPN) per 100 ml (average for 30 day period)

### **E- Mixing Zone:**

Each direct discharge shall be adequately dispersed and mixed with the receiving waters. A mixing zone shall be designed to minimize adverse effects on the designated beneficial uses. The adequacy and area of the mixing zone shall be determined on a case by case basis by the Presidency.

## **14- Pretreatment Guidelines for Discharge to Central Treatment Facilities:**

### **A- Purpose:**

Pretreatment guidelines are intended to provide guidance for the removal of substances that significantly affect the performance of the



central treatment facilities and substances that are not adequately controlled at the central treatment facility.

#### B- Scope:

Pretreatment guidelines and standards apply to all facilities and modifications covered by the environmental standards which discharge to a central industrial or municipal waste water treatment facility.

#### C- General Pretreatment Guidelines:

Waste waters of different characteristics shall be segregated to the maximum extent possible. Sanitary wastes may be sent to a central treatment facility without pretreatment. Contaminated waste waters other than sanitary waste shall be treated on site to meet applicable pretreatment requirements.

#### D- Specific Pretreatment Guidelines:

The following pretreatment guidelines apply to wastewater prior to discharge to a central treatment facility. The pretreatment guidelines provide a range for allowable levels of pollutants in the effluent:

#### **D-1 Physiochemical pollutants:**

<b><u>(Pollutants)</u></b>	<b><u>(Guidelines)</u></b>
(a) Total suspended solids (TSS)	2000 mg/liter (max)
(b) pH	5-10 pH units
(c) Temperature	60°C (max)

#### **D-2- Organic Pollutants:**

<b><u>(Pollutants)</u></b>	<b><u>(Guidelines (maximum limit))</u></b>
(a) Chemical Oxygen Demand	1500 mg/liter
(b) Total Organic Carbon	1000 mg/liter
(c) Oil and Grease	120 mg/liter
(d) Phenols	150 mg/liter
(e) Total Chlorinated Hydrocarbons	0.5 mg/liter



### **D-3- Inorganic Pollutants:**

<b><u>(Pollutants)</u></b>	<b><u>(Guidelines (maximum limit))</u></b>
(a) Arsenic	1.0 mg/liter
(b) Cadmium	0.5 mg/liter
(c) Chromium (Total)	2.0 mg/liter
(d) Copper	1.0 mg/liter
(e) Cyanide (Total)	1.0 mg/liter
(f) Lead	1.0 mg/liter
(g) Mercury	0.01 mg/liter
(h) Nickel	2.0 mg/liter
(i) Zinc	10.0 mg/liter

### **15- Implementation Obligations:**

1. It shall be the duty and obligation of the Owners, planners and operators of new facilities and modification to existing facilities to ensure that such facilities are located, designed and operated in accordance with these standards.
2. It shall be the duty and obligation of the Owners and operators of existing facilities to ensure that such facilities are operated in accordance with these standards.
3. Subject to other statutory requirements, owners and operators proposing to construct new facilities must contact the Presidency and submit the required data, including relevant planning and design details, indicating the pollution control measures to be taken. The Presidency shall review such data and issue a written permit within a period not exceeding three (3) months after the date of receiving of such data from the other agencies and facilities prior to execution of such facilities.
4. Owners and operators of existing facilities are required to submit to the Presidency specific requested data following notification by the Presidency. The Presidency may request the carrying out of tests, investigations or analysis to ensure compliance with the standards in any existing facility. Owners and operators of existing facilities shall be deemed responsible for the submittal of the data relating to the existing facilities





even if they do not receive notification by the Presidency requesting such information.

### **16- Enforcement:**

1. It shall be the responsibility of the Presidency to ensure that compliance with these standards by all facilities in the Kingdom is enforced.
2. Every application for a license to construct a new facility or introduce a major modification to an existing facility which is submitted to a Competent Agency, must enclose a certificate stating that the Presidency has evaluated the existing facility or the plans for the new facility and ascertained that the subject facility is in compliance with these standards.
3. In case where the Presidency concludes that the design of a planned new facility does not incorporate adequate control measures to comply with these standards, the Presidency shall notify the applicable licensing agency and request that a license not be issued to the facility until it rectifies the specific non compliance issues identified by the Presidency. The facility owners shall also be informed.
4. In case where the Presidency finds that an existing facility is not in compliance with these standards, the Presidency shall notify the concerned facility and request that it be rectified according to a designated schedule. In case that the non compliance continues, the Presidency may serve a final warning to the facility. If such a warning yields no positive results, the Presidency shall notify and request the concerned licensing agency to suspend or otherwise withdraw the license of the facility.
5. The Presidency shall carry out inspections on the spot of any facility, to assess compliance with these standards, without prior notice or warning.



## **Appendix-2**

### **Fundamentals and Standards for Environmental Impact Assessment of Industrial and Development Projects**

#### **1. Projects Owned by Persons:**

- 1.1 The licensing agency shall classify the project for which a license is being sought in accordance with the industrial and development project classification guide (Appendix No. 2.1) issued by the Competent Agency.
- 1.2 Based on the classification of the project, the licensing agency shall:

#### **First category:**

Provide the agency in-charge of implementing the project with the initial environmental assessment form (First Category Form, Appendix 2.2).

#### **Second category:**

Provide the agency in-charge of implementing the project with the initial environmental assessment form (Second Category Form, Appendix 2.3).

#### **Third category:**

Inform the agency in-charge of implementing the project that the project is classified as a category three project which calls for a comprehensive project environmental impact assessment in triplicate by a qualified consulting office approved by the competent agency or licensing agency or any agency approved by competent agency or any research center. The agency in-charge of implementing the project shall be given a copy of the general guidelines for undertaking of an environmental impact assessment of industrial and development projects (Appendix



2.4), and oblige the agency in-charge to coordinate with the competent agency in preparing the study.

1.3 The agency in-charge of implementing the project shall implement the project (as per the classification) as follows:

**First category:**

Complete the initial environmental assessment form for first category projects (first category project from, Appendix 2.2) and prepare a simple preliminary report on the project.

**Second category:**

Have a qualified consulting office qualified by the competent agency or any approved agency by the competent agency or any research center complete the initial environmental assessment form for second category projects (second category project from, Appendix 2.3) as well as prepare a summarized technical environmental report on the project.

**Third category:**

Employ a qualified consulting office approved by the competent agency or any research center to conduct an environmental assessment study for the project in accordance with the guidelines for the development of an environmental impact assessment for industrial and development projects (Appendix 2.4) in coordination with the competent agency and the agency in-charge of implementing the project shall be obliged to refer back to the competent agency for coordinating in preparing the study.

1.4 The competent agency shall receive from the licensing agency or the agency in-charge of implementing the project details on the project from an approved and qualified consulting office or research center (as per the classification) as follows:

**First category:**

The initial environmental assessment form for first category projects completed by an environmental specialist and preliminary environmental report on the project.

**Second category:**

The initial environmental assessment form for second category projects completed by a qualified consulting office approved by the competent agency or research center in addition to two copies of the summarized environmental technical report, the project design drawings, equipment and instrumentation catalogues.

**Third category:**

Three copies of the project environmental impact assessment study prepared by a qualified consulting office qualified by the competent agency or any agency approved by the competent agency or any research center in accordance with general guidelines for the preparation of environmental impact assessment studies for industrial and development projects after coordination with the competent agency.

1.5 According to the classification of the project, the competent agency shall:

**First category:**

Review and evaluate the information contained in the first category project form which has been completed by an environmental specialist, the preliminary simplified environmental report on the project and all of the attached information. Based on this review and its findings, the following actions shall be taken:



- a. In case of accepting the validity of information enlisted in the form:

The agency in-charge of implementing the project shall be issued necessary notification which should include the competent agency approval statement of the validity of information enlisted in the form and that the project proponent shall give consent that he will implement all the required conditions attached, and be obliged when implementing the project with all environmental standards, criteria, and procedures issued by the competent agency. Copy of the approval shall be forwarded to the licensing agency.

- b. In case of requesting additional information or preparing partial environmental study:

The licensing agency or agency in-charge of implementing the project shall be notified to make available the additional information or to conduct partial environmental study that should focus on specific environmental components according to the project classification and related activities.

- c. In case that the form is rejected:

The agency in-charge of implementing the projects or the licensing agency or the public agency shall be notified of the competent agency's rejection of the information enlisted in the form or objecting the environmental remarks on the project.

**Second category:**

- a. In case of accepting the validity of information enlisted in the form or on the partial environmental study:



The agency in-charge of implementing the project shall be issued necessary notification which should include the competent agency approval statement of the validity of information enlisted in the form and that the project proponent shall give consent that he will implement all the required conditions attached, and be obliged when implementing the project with all environmental standards, criteria, and procedures issued by the competent agency. Copy of the approval shall be forwarded to the licensing agency.

b. In case of requesting additional information or preparing environmental impact assessment study:

The licensing agency or agency in-charge of implementing the project shall be notified to make available the additional information or to conduct a comprehensive environmental impact assessment study in triplicate by a consulting office qualified by the competent agency or any research center or any agency approved by the competent agency (this may sometimes require to conduct partial environmental study) that should focus on specific environmental components according to the project classification and related activities.

c. In case that the form or the partial study is rejected:

The agency in-charge of implementing the projects or the licensing agency or the public agency shall be notified of the competent agency's rejection of the information enlisted in the form or rejection of the partial environmental study or objecting the environmental remarks on the project.

**Third category:**

a. In case of requesting additional information:



The licensing agency or agency in-charge of implementing the project shall be notified to make available the additional information or to conduct a comprehensive environmental impact assessment study in triplicate by a consulting office qualified by the competent agency or any research center or any agency approved by the competent agency (this may sometimes require to conduct partial environmental study) that should focus on specific environmental components according to the project classification and related activities.

The agency in-charge of implementing the project shall be issued necessary notification which should include the competent agency approval statement of the validity of information enlisted in the form and that the project proponent shall give consent that he will implement all the required conditions attached, and be obliged when implementing the project with all environmental standards, criteria, and procedures issued by the competent agency. Copy of the approval shall be forwarded to the licensing agency.

b. In case of approval of the environmental impact assessment study of the project:

The agency in-charge of implementing the project shall be issued necessary notification which should include the competent agency approval statement on the EIA of the project. The owner of the project shall give consent that he will implement all the required conditions attached, and be obliged when implementing the project with all environmental standards, criteria, and procedures issued by the competent agency. Copy of the approval shall be forwarded to the licensing agency.

c. In case of rejection of EIA study of the project:



The agency in-charge or the licensing agency or the public agency shall be notified of the competent agency's rejection of the EIA of the project or objecting the environmental remarks on the project.

## **2. Projects of public, concerned and licensed agencies:**

2.1 The public, concerned or licensing agencies which own, implement or operate the project shall, in cooperation with the competent agency, identify the category of the project.

2.2 Based on the project classification (Appendix 2.1), the competent agency shall take the following actions:

### **First category:**

Provide the public, concerned or licensing agency which owns, implements or operates the project with the preliminary environmental assessment form (First Category Project Form, Appendix 2.2)

### **Second category:**

Provide the public, concerned or licensing agency which owns, implements or operates the project with the preliminary environmental assessment form (Second Category Project Form, Appendix 2.3)

### **Third category:**

Inform the public, concerned or licensing agency which owns, implements or operates the project that its project is classified as a Category Three project which calls for a comprehensive environmental impact assessment in triplicate by consulting office qualified by the competent agency or any research center or any agency approved by the competent agency. The agency shall be given a copy of the general guidelines for the development of an environmental impact assessment for industrial and developmental projects (Appendix 2.4) and shall





be required to liaise with the competent agency to coordinate the preparation of the study.

2.3 The public, concerned or licensing agency which owns, implements or operates the project shall (as per the classification) take the following actions:

**First category:**

Complete the preliminary environmental assessment form (first category form Appendix 2.2) and prepare the preliminary a simplified environmental report on the project.

**Second category:**

The preliminary environmental assessment form (second category form, Appendix 2.3) should be completed by a consulting office qualified by the competent agency or any research center or any agency approved by the competent agency, in addition to preparation of summarized environmental technical report on the project.

**Third category:**

Prepare an environmental impact assessment study for the project prepared by a consulting office qualified by the competent agency or any research center or any agency approved by the competent agency in accordance with the general guidelines for the development of an environmental impact assessment for industrial and development projects (Appendix 2.4) after coordination with the competent agency and refer back to the competent agency to coordinate the preparation of the study.

2.4 The competent agency shall receive from the public, concerned or licensing agency which owns, implements or operates the project (or the contracted person who implements the project



with the public, concerned or licensing agency which owns or operates the project) the following:

**First category:**

The preliminary environmental assessment form for first category projects completed by an environmental specialist who will prepare the simplified preliminary environmental report on the project.

**Second category:**

The preliminary environmental assessment form for second category projects completed by a consulting office qualified by the competent agency or any research center or any other agency approved by the competent agency, in addition to two copies of the summarized environmental technical report along with the project design drawings, equipment and instrumentation catalogues.

**Third category:**

Three copies of the project environmental impact assessment report prepared by a consulting office qualified by the competent agency or any research center or any other agency approved by the competent agency in accordance with the general guidelines for the development of an environmental impact assessment for industrial and development projects after coordination with the competent agency.

2.5 According to the classification of the project, the competent agency shall:

**First category:**

Review and evaluate the information contained in the first category project form which has been completed by an environmental specialist, the preliminary simplified



environmental report on the project and all of the attached information. Based on this review and its findings, the following actions shall be taken:

a. In case of accepting the validity of information enlisted in the form:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project shall be issued the necessary notification which contains the consent of the competent agency on the validity of the enlisted information and that the proponent shall observe and comply all the required and attached conditions, and to comply with all environmental standards, and criteria issued by the competent agency when implementing the project and to take into consideration the rules for Implementation and instructions issued by the licensing and other concerned agencies.

b. In case of requesting additional information or preparation of partial environmental study:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project should be notified about the necessity to provide additional information or the necessity of preparing the partial environmental study that should focus on specific environmental components according to the nature of the project and the activity that the project belongs to.

c. In case that the form is rejected:



The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project) will be informed of the rejection of information enlisted in the form and the objections and remarks made on the project.

**Second category:**

- a. In case of accepting the validity of information enlisted in the form or accepting the partial environmental study:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project) shall be issued the necessary notification which contains the consent of the competent agency on the validity of the enlisted information on the form or on the partial environmental study and that the proponent shall observe and comply all the required and attached conditions, and to comply with all environmental standards, and criteria issued by the competent agency when implementing the project and to take into consideration the rules for Implementation and instructions issued by the licensing and other concerned agencies.

- b. In case of requesting additional information or preparation of environmental impact assessment study:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates



the project should be notified about the necessity to provide additional information or the necessity of preparing a comprehensive EIA study for the project in triplicate by one of the consulting offices qualified by the competent agency or any research center or any other agency approved by the competent agency (sometimes a partial environmental study, that should focus on specific environmental components according to the nature of the project and the activity it belongs to, may be requested).

c. In case that the form or the partial study is rejected:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project will be informed of the rejection of information enlisted in the form or on the partial environmental study and the objections and remarks made on the project.

**Third category:**

a. In case of requesting additional information approval:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project should be notified about the necessity to provide additional information about the project.

b. In case of approval of the EIA study of the Project:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or



operates the project shall be issued the necessary notification which contains the consent of the competent agency on the validity of the enlisted information on the form or on the environmental impact assessment study of the project and that the proponent shall observe and comply all the required and attached conditions, and to comply with all environmental standards, and criteria issued by the competent agency when implementing the project and to take into consideration the rules for Implementation and instructions issued by the licensing and other concerned agencies.

c. In case that the EIA Study of the project is rejected:

The public, concerned or licensing agency which owns, implements or operates the project (or the person contracted for implementing the project with the public, concerned or licensing agency which owns or operates the project will be informed of the rejection of EIA study of the project and the objections and remarks made on the project.



## **Appendix 2.1**

### **Guidelines For Classification of Industrial And Development Projects**

#### **Key Principles for Environmental Assessment of the Project:**

The auditing process for the environmental impact assessment shall be based on the following key principles:

- The nature and magnitude of the intended activity and the existence of similar projects at the site or similar sites.
- Extent of depletion of natural resources by the installation, particularly agricultural lands and mineral resources.
- Location of the installation and the nature of the surrounding environment and nearby residential habitats.
- Type of power used.

The method of assessment will also depend on the classification of the project based on the level of expected impacts of these projects into three categories as follows:

#### **First Category: Projects With Limited Environmental Impacts:**

This category covers projects which are not expected to have tangible negative environmental impact, such as:

- Textile and ready made clothing factories located inside industrial parks, which do not have dyeing processes.
- Rubber and plastic factories located inside industrial parks, which rely on heating processes which do not produce hazardous emissions (as furan gas is emitted by heating raw PVC).
- Foodstuff and beverage processing and canning factories located inside industrial parks.



- Leather, shoe and bag factories located inside industrial parks, which do not involve any tanning processes.
- Minor expansions of power lines not exceeding 10% of their total lengths.
- Expansion of existing roads not exceeding 15% of the existing length or width.
- Modification or expansion of an existing marine berth which does not involve any pollution impact or effective dredging of the site.
- Expansion of irrigation and drainage installations by not more than 10% of the installation.

### **Second Category: Projects With Significant Environmental Impacts:**

This category covers the projects that may or are expected to have some significant environmental impact requiring the development of a specific environmental assessment report addressing certain environmental or technical details. Such projects include:

- Steel and iron mills and metal foundries whose production is less than 150 tons per day.
- Metal and iron treatment and galvanization plants with a production of less than 25 tons per day.
- Engine shops, machine, pipe and boiler works.
- Auto and vehicle fabrication and assembly works.
- Glass factories.
- Block, brick, ceramic, china and porcelain factories.
- Chemical, drug, paint, detergent and adhesive plants with capacities of less than 25 tons per day.
- Quarry, crushing, asphalt and batching and mixing and prefab. Concrete plants.
- Chemical blending and packing works outside industrial parks.
- Paper and carton factories.
- Fabric dyeing works at less than 10 tons per day.
- Fabric, weaving and cellulose factories located outside industrial parks.





- Rubber and plastic plants located outside industrial parks.
- Foodstuff and vegetable canning plants with a capacity in excess of 1000 tons per year.
- Livestock and poultry abattoirs and butchery shops.
- Broiler poultry breeding projects and abattoirs of less than 20000 birds per cycle.
- Tannery works producing less than one million square feet annually or 750 animal hides per day.
- Fish and marine product processing plants producing more than 1000 tons per year.
- Animal fodder production projects.
- Non petroleum based chemical production and storage sites.
- Leather, bag and shoe factories not involving tannery operations located outside industrial parks.
- Industrial and petroleum waste recycling and reuse facilities.
- Offshore and onshore pipeline projects, less than 50 km in length.
- Petroleum, gas and petroleum product storage facilities (other than gasoline stations).
- Thermal power stations, less than 30 megawatts capacity.
- Power transmission lines and transformer stations.
- New or expanded hospitals.
- Drug and medical chemical production.
- Construction of divided roads less than 50 km in length, excluding highways, tunnels, causeways, bridges and railroads.
- Expansion and modification of existing roads, not exceeding 15%.
- Agricultural projects.
- Fish farm projects.
- Expansion and modification of irrigation and drainage projects and systems, not exceeding 10%.
- Grain mills

### **Third Category: Projects With Serious Environmental Impacts:**

These are projects whose construction and operation are expected to have serious negative effects on man and the environment and thus



require a comprehensive environmental impact assessment. They include the following:

- Steel and cast iron plants with a production capacity in excess of 150 tons per day.
- Metal electroplating plants with a capacity in excess of 25 tons per day.
- Cement plants.
- Metal extraction.
- Major chemical and petrochemical industries, such as fertilizers, petroleum products, drugs...etc.
- Paint, solvent and detergent industries which produce in excess of 50 tons per day.
- Pesticide and insecticide plants.
- Major paper production plants.
- Textile dyeing works producing in excess of 10 tons per day.
- Tannery works producing in excess of a million square feet per year.
- Lead smelting plants.
- Vegetable and animal oil and fat refining processes.
- Exploration, extraction, petroleum and gas development operations.
- Offshore and onshore pipeline in excess of 50 km in length.
- Oil and gas separation and treatment facilities.
- Petroleum and petroleum product storage facilities in excess of 15000 cubic meter capacity.
- Oil refining installations.
- Petrochemical industries.
- Thermal power stations, in excess of 30 megawatts capacity.
- Nuclear power plants.
- Solar power villages and plants
- International trans-boundary power transmission lines and stations.
- Water desalination plants.



- Major conveyance systems, such as causeways, underground transport, railways, express ways and roads in excess of 50 km in length.
- Civilian and military airports.
- Ports, expansions in berths, yards...etc.
- Tourist resorts and projects in the vicinity of sensitive ecosystems, archeological sites, sanctuaries, residential developments and the coastline.
- Public irrigation and sanitary drainage systems and their expansion, including dams ...etc.
- Waste water treatment plants.
- Wastewater treatment plant discharges in to seas and valleys.
- Model cities and industrial zone construction projects.
- Urban development projects, their expansion and public residential complexes.
- Consolidated crushers, cement and asphalt batching complexes in cities and provinces.
- Municipal public waste liquid waste disposal and storage facilities (in the absence of processing plants in the area).
- Medical waste disposal projects (transportation, collection, treatment and disposal).
- Domestic waste treatment and municipal disposal facilities.
- Toxic and hazardous waste storage, treatment and disposal facilities.
- Sugar refineries.



**Appendix 2.2**

**Environmental Assessment of Development Projects**

**Information Form For First Category Projects**

For ( ) project  
Under license by ( Ministry/ commission) No.  
Dated:

**Instructions:**

- 1- All questions must be answered and other attachments may be added as needed with a cross reference to them in the corresponding paragraph in the form.
- 2- The form shall be stamped and signed by a responsible person or the project’s official representative at the end of the form.
- 3- Upon completion, the form shall be forwarded to the following address:

The President/Deputy Assistant For Environmental Affairs  
Presidency of Meteorology and Environment  
P.O. Box 1358  
Jeddah 21431, Kingdom of Saudi Arabia

**Applicant’s data:**

Name of the applicant: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone and fax numbers: \_\_\_\_\_

E-mail: \_\_\_\_\_



General information:

Type of project: (industrial, agricultural, residential, commercial, tourist, other)

New installation ( )

Expansion of existing facility ( )

Description of the activity:

Location: inside ( ) outside ( ) the limits of City ( ).

Name of industrial city or zone:

Estimated number of residents within 250 meters of the project:  
.....

Area of the project site: \_\_\_\_\_ hectares \_\_\_\_\_ square meters

(Please attach a location map showing the distance form residential clusters)

Source of Energy ..... Type and Quantity of Fuel Used.....

Construction activities:

Date of commencement and duration:

The area to be prepared:



For Production Projects (such as industrial and agricultural projects):

- Brief description of the products and their production rates:
- Brief description of the raw materials, their quantities, sources and state (liquid), (powder), (solid):
- Number of workers:            production hours:            No. of shifts:
- Brief description of the preparation and production phases (attach additional papers, drawings, technical catalogs and reports, if any):

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Description of the construction work:

Permits and licenses:

(List and attach copies of all licenses and approvals obtained from the agencies concerned): \_\_\_\_\_

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Declaration:

I declare that the information provided in this form is true and correct. In the event subsequent amendments are required, the Presidency will be notified prior to proceeding therewith.

_____	_____	_____	_____
Name	Title	Date	Stamp



## Appendix 2.3

### Environmental Assessment of Developmental Projects

#### Information Form For The Second Category Projects

For ( ) project  
Under license by ( Ministry/ commission) No.  
Dated

#### Instructions:

- 1- All questions must be answered and other attachments may be added as needed with a cross reference to them in the corresponding paragraph in the form.
- 2- The form shall be stamped and signed by a responsible person or the project's official representative at the end of the form.
- 3- Upon completion, the form shall be forwarded to the following address:

The President/Deputy Assistant For Environmental Affairs  
Presidency of Meteorology and Environment  
P.O. Box 1358  
Jeddah 21431, Kingdom of Saudi Arabia

#### Applicant's data:

Name of the applicant: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone and fax numbers: \_\_\_\_\_

E-mail: \_\_\_\_\_



General information:

Type of project: (industrial, agricultural, residential, commercial, tourist, other)

New installation ( )                      Expansion of existing facility ( )

Description of the activity:

Location: inside ( ) outside ( ) the limits of                      City.

Name of industrial city or park:

Estimated number of residents within 250 meters around the project:

Area of the project site: \_\_\_\_\_hectares\_\_\_\_\_square meters

(Please attach a location map showing the distance form residential clusters)

Construction activities:

Date of commencement and duration:

The area to be developed and graded:

Description of the roads to be constructed inside and outside the facility:

Description of the construction works and methods of construction used:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Brief description of the project:

Key characteristics of the project:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





Objectives of the project:

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Justification for the project:

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Major components:

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Technologies used (Please attach copies of the descriptive technical reports and catalogs):

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Volumes of Inputs and Consumables During Construction And Operation:

<b>Inputs</b>	<b>Construction (cubic meter per day)</b>	<b>Operation (cubic meter per day)</b>
Water for sanitary purposes		
Water for industrial purposes		
Water for other uses( )		
Energy (fuel)		
Raw materials (producing projects), types and quantities in detail		
Other		



Volumes of Outputs, Emissions and Wastes:

<b>Outputs and emissions</b>	<b>Construction</b>	<b>Operation</b>
SO <sub>2</sub> to the air		
Aerial(suspended particles) to the air		
Aerial NO <sub>x</sub> to the air		
Aerial (others__ to the air)		
Sanitary drainage water		
Industrial drainage water		
Domestic solid wastes		
Industrial solid wastes		
Hazardous solid wastes		
Construction material wastes		

For Production Projects

- Brief description of the products and their production rates:
- Brief description of the raw materials, their quantities and sources:
- Number of workers:      production hours:      No. of shifts:
- Brief description of the preparation, operation and production phases (attach additional papers, drawings, technical catalogs and reports, if any):



Specifications of The Stacks:

Height: \_\_\_\_\_ Diameter: \_\_\_\_\_

Gas emission rate: \_\_\_\_\_ cubic meter/hour

Temperature: \_\_\_\_\_ °C

Velocity: \_\_\_\_\_ meter/second

Water vapor content: \_\_\_\_\_ %

Drainage Outlet Specifications:

Flow rate: \_\_\_\_\_ cubic meter/day

Discharge pipe diameter: \_\_\_\_\_ cm

Temperature in the blending area: \_\_\_\_\_ °C

Description of the Ambient Environment:

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Most Significant Biological Properties of The Area: notably sensitive areas (including fauna, flora, sanctuaries, antiquities, and resort areas - please provide details in other attachments):

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Initial Analyses of The Environmental Impacts: (please indicate the most significant impacts and provide details in subsequent attachments as needed)



Affected environment/ Impacts	Air pollution	Water pollution	Pollution by waste	Soil pollution and other impacts
On the site due to construction work				
On the Surrounding areas due to construction work				
On the Surrounding areas due to operations				
Across the site boundaries				
Sanitary and public services				
Fauna resources				
Flora resources				
Fisheries and marine resources				
Tourism and recreation				
Historical antiquities				
Sanctuaries				
Others				

Description of Control And Mitigation Procedures And Technologies For Various Impacts:

Impact	Control and abatement technologies used
Air pollution	
Water pollution	
Pollution by wastes	
Soil pollution	
Emergency and safety events	
Other events	

Permits: (List and attach copies of all licenses and approvals obtained from the agencies concerned to construct the project)

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\_\_\_\_\_  
\_\_\_\_\_

Declaration:

I declare that the information provided in this form is true and correct. In case of subsequent amendments are required, the Presidency will be notified prior to proceeding therewith.

\_\_\_\_\_  
Name Title of agency Date Stamp

Applicant's authentication (project proponent)

\_\_\_\_\_  
Name Job title Date Stamp



## **Appendix 2.4**

### **Guidelines For Compiling An Environmental Impact Assessment Study**

- 1. Presentation of The Project:**
- 2. Description of The Project And Its Objectives:**
  - Goals
  - Need for the project
  - Components of the project (onsite facilities attached to the project such as water treatment plants, water desalination plants, electrical power plants housing etc.)
  - Project construction phases
  - The workforce required for implementation of the project (minimum and maximum)
  - The workforce required for operation of the project (minimum and maximum)
  - Alternatives and options
- 3. Status of Surrounding Environment including the following:**
  - Air quality
  - Soil and topography
  - Oceanography
  - Surface and ground water
  - Land environment (fauna/flora)
  - Marine environment (fauna/flora)
  - Land use of selected site and its surroundings
  - Land ownership (original owner)
- 4. The Environmental Assessment including the following:**



- Identification of the general potential impacts of the project and suggested alternatives.
- Identification and analysis of key effects of the project on:
  - ❖ Air quality
  - ❖ The marine and coastal environment
  - ❖ Surface and underground water
  - ❖ Flora and fauna
  - ❖ Land use and urban development
  - ❖ Residential clusters
  - ❖ General scenic view
  - ❖ Others

#### **5. Assessment of Significant Impacts:**

- Quantify and rate the significant impacts on natural resources.
- Estimate the relative damage to the area and the extent of its potential.
- Estimated lifespan of the facilities.
- Studies on the possible mitigation of anticipated impacts.

#### **6. Summary of The Significant Impacts After Mitigation Processes:**



### **Appendix 3**

#### **Guide To Environmental Accreditation Procedures**

##### **Phase I: Application Submission:**

1. The competent agency receives the correspondence, application and documents supporting applications for environmental accreditation or for endorsement of environmental technologies from companies, establishments, consulting offices and individuals.
2. The competent agency forwards a letter to the applicant, requesting identification of the activity for which certification is sought and completion of the Environmental Accreditation Application Form (Appendix 1.1).
3. The action will be dated, entered in the computer and a copy of the action letter will be placed in the application file kept by the competent agency.
4. The competent agency receives the Environmental Accreditation Application Form from the applicant after completion, identifying the activity for which certification is sought, the nature of the area, the location of activity and expertise and the existing infrastructure and equipment along with all the necessary documents.
5. Upon verification of the activity for which accreditation is sought, the competent agency will forward to the applicant the Accreditation Requirement Form for the required activity as shown in the Environmental Services Accreditation Requirements Guide (Appendix 1.2). In the event that an environmental assessment study is required for either the activity to be engaged in or the site and facilities where the activity will be undertaken, the application will be sent to the competent agency's Environmental Assessment Department so that it may take the applicable routine procedures for requesting an environmental impact assessment, auditing of the study and reporting the findings to the Environmental Accreditation Department for completion of the accreditation process.





6. The action will be dated and fed into the computer and a copy of the action letter will be placed in the application file kept by the competent agency.

**Phase II: Auditing Information and documentation Supporting the Application:**

1. The competent agency receives the response from the applicant, which incorporates all of the required information, documents and attachments (in accordance with the Environmental Services Accreditation Requirements Guide).
2. Specialists from the competent agency's Environmental Accreditation Department will audit and review the response received from the applicant, which includes all information and documents and attachments supporting the application (in accordance with the Environmental Services Accreditation Requirements Guide).

**Phase III: Assurance of Completion of Requirements and Logistics:**

Based on the outcome of the study and review of the correspondence received from the applicant which includes all the required information, documents and attachments and after filling the form of environmental accreditation and taking into consideration the type of activity (ies) required for accreditation, the following procedure shall be undertaken:

- (i) The applicant would be provided with a list of accreditation requirements to enable him to undertake activity (ies) that he applied for.
- (ii) The application shall be dated and documented in the computer and a copy of processing letter shall be kept in the application file in the competent agency.
- (iii) The applicant shall start fulfilling all the requirements and complete all logistics according to the requirement presented to him.



- (iv) When finalizing the fulfillment of all requirements and logistics, the applicant should inform the competent agency to arrange a field visit of the site.
- (v) Specialists in the competent agency shall visit the site to be accredited to make sure that all these requirements and logistics are met.

#### **Phase IV: Approval of Registration:**

1. The following action shall be taken in the light of the field visit:

##### **a. In case of unconditional approval:**

- I. The competent agency transmits a letter to the Ministry of Commerce office in the area where the commercial registration will be issued, where the applicant is registered or where the applicant will engage in the activity, advising that after review and auditing of all information, documents and attachments and according to the requirements of the applied activities and the specific standards stated in the guide of requirements of accreditation in the field of environmental services, the competent agency approves registration of the activity in the commercial register of the applicant on the provision that the applicant complies with all environmental standards and criteria issued by the Presidency and that the applicant be allowed to engage the activity only after obtaining environmental certification from the licensing agency. Copy of the letter will be forwarded to the applicant.
- II. The action will be dated, documented into the computer and a copy of the action letter will be placed in the application file kept by the competent agency.

##### **b. In case of conditional approval:**



- I. The competent agency sends a letter to the applicant, advising that following the review and auditing of all information, documents and attachments and according to the requirements of the applied activities and the specific standards stated in the guide of requirements of accreditation in the field of environmental services, the competent agency approves registration of the activity in the commercial register subject to the condition that the applicant undertake in writing to fully comply with all of the conditions related to the proposed activity for which accreditation is sought, as well as all of the environmental standards and criteria set forth by the Presidency.
- II. The action will be dated and documented into the computer and copy of the action letter will be placed in the application file kept by the competent agency.
- III. The competent agency receives the applicant's letter of undertaking to comply with the conditions of the activity for which accreditation is sought as well as all environmental standards and criteria set forth by the Presidency.
- IV. The competent agency sends a letter to the Ministry of Commerce office in the area where the commercial register will be issued, where the applicant is registered or where the applicant will engage in the activity, advising that after review and auditing of all information, documents and attachments and according to the requirements of the applied activities and the specific standards stated in the guide of requirements of accreditation in the field of environmental services (and the letter of the applicant indicating his compliance with the special conditions of the activity sought and to comply with all environmental standards and regulations issued by the competent agency, the



applicant's undertaking to comply with the conditions of the activity for which accreditation is sought as well as all environmental standards and criteria set forth by the Presidency), the competent agency approves registration of the activity in the commercial register. The applicant shall be allowed to engage in the activity only after obtaining environmental certification from the competent agency, provided that the owner of the project shall comply with all environmental standards and regulations issued by the competent agency. Copy of the letter will be forwarded to the applicant.

- V. The action will be dated and documented into the computer and copy of the action letter will be placed in the application file kept by the competent agency.

**c. In case of rejection of the application:**

- I. A letter will be forwarded to the applicant advising that following the review and auditing of the application in the light of all of the information, documents and attachments (as per the requirements of the activity sought and according to the Environmental Services Accreditation Guide), the competent agency recommends that approval be denied, indicating the reasons even if it is not of environmental nature.
- II. The action will be dated and documented into the computer and copy of the action letter will be placed in the application file kept by the competent agency.

**Phase V: Approval of Accreditation:**

1. The competent agency receives from the applicant the letter advising that the activity has been entered in the commercial register and that all requirements and conditions have been fully met.



2. Specialists from the competent agency visit to inspect the site of activity for which accreditation is sought to verify that all requirements and logistics and specific conditions imposed on the applicant have been fully met (if the type of activity so requires).
3. Following the verification that all environmental accreditation requirements have been met, the competent agency shall proceed as follows:

**a. In case of unconditional approval:**

- I. The competent agency sends a letter to the applicant, advising that following the review and auditing of the application in the light of all of the information, documents and attachments (activity sought and in accordance with the Environmental Services Accreditation Guide), the competent agency approves granting the applicant with an Environmental Accreditation Certificate to engage in the activity for which accreditation is sought provided that the applicant comply with all of the environmental standards and criteria set forth by the competent agency.
- II. The action will be dated and documented into the computer and copy of the action letter will be placed in the application file kept by the competent agency.

**b. In case of conditional approval:**

- I. The competent agency sends a letter to the applicant, advising that following review and auditing of the application in the light of all of the information, documents and attachments (activity sought and in accordance with the Environmental Services Accreditation Guide), the competent agency approves granting the applicant with the Environmental



Accreditation Certificate to engage in the activity for which accreditation is sought on the condition that the applicant undertake to fully comply with all of the environmental standards and criteria set forth by the competent agency, as well as the attached specific conditions related to the activity for which accreditation is sought.

- II. The action will be dated and documented into the computer and copy of the action letter will be placed in the application file kept by the competent agency.



**Appendix 3.1**  
**Form No. 1**

**Application For Accreditation To Engage In Environmental Services**

New ( )                      Renew ( )

**1. Personal data:**

Commercial name of the facility:

Commercial register No.:              Date of expiration:

Headquarters:

Address of the company:

City:                      P.O. Box                      Postal code:                      Tel. & fax

Nos.    e-mail:

Partner companies:

**Current Activities:**

- Activity Required to be added
- Location of the activity

**Environmental studies and research:**

- Environmental assessment studies
- Environmental consultations
- Environmental Training

**Municipal solid waste management:**

- Recycling
- Final disposal
- Site Preparation

**Hazardous waste management:**

- Transportation
- Storage
- Treatment and Final Disposal
- Site Preparation

**Polluted water and soil treatment:**

- Wastewater treatment
- Ground water treatment
- Polluted soil rehabilitation

**Non hazardous industrial waste:**

- Liquid wastes
- Suspended Particulates
- Site preparation

**Surveillance and analysis services:**

- Water quality measurements
- Air quality measurements
- Supply of surveillance and analysis units

**Marine environment services:**

- Oil pollution abatement
- Availability of equipment and abatement material
- Chemical pollution abatement
- Cleansing of sea coast
- Collection, transportation and disposal of contaminated wastes
- Site Preparation

**Pollution Control Technology**

- Import
- Installation and operation
- Maintenance

**Environmental Management Services**

- Certification organization representative
- ISO 14000 conformable
- Fulfillment of ISO 14000 requirements
- Environmental review and audit

**Medical Waste Management**

- Transportation
- Treatment
- Final Disposal





- Storage
- Site preparation

**Monitoring Services and Environmental Laboratories**

- Monitoring and analysis of water quality
- Monitoring and analysis of air quality
- Equipping environmental laboratory

**Used Oil Management**

- Transportation
- Recycling
- Storage
- Export
- Treatment and/or disposal
- Site preparation

Name of Representative:

Official Stamp or Seal  
Signature



## **2. Required attachments:**

1. Copy of the commercial registration.
2. Copy of the certificate of the Department of Zakat and Income Tax.
3. Curriculum vitae of the technical personnel showing their work related experience.
4. Record of experience of the organization (incase of the organization worked in the same field of activity previously) and for each participating party (partner company).
5. Copies of previous accreditation letters obtained from the Presidency (in case of request for renewal or expired certification).
6. Copy of the last annual report of the organization and each participating party (in case of renewal of accreditation).
7. Organization chart.
8. Plan drawing of the various facilities of activity (the activity site).
9. Statement of main equipment and instruments and their specifications used in the activity.
10. Description of the proposed work plan and technology used.
11. Work safety procedures.
12. Quality assurance plan.

### Note:

- Please attach two copies of accreditation request and relevant documents together with Environmental Assessment Study (in Arabic).
- For any further enquiries, please call Tel. No. 6512312 Ext. 2660/2661 and for sending any request by fax, the fax number is 651 7832.



## **Appendix 3.2**

### **Environmental Services Accreditation Requirements Guide**

#### **1. Types of accreditation Certificates:**

The Presidency of Meteorology and Environment issues the following certificates of accreditation:

1. Certificates to Companies involved in industrial waste disposal and other environmental non industrial activities.
2. Certificates to Environmental laboratories.
3. Certificates to Environmental technology suppliers.
4. Certificates to Importers of pollution control equipment.
5. Certificates to Companies preparing environmental impact assessment studies.

#### **2. Classification of environmental services and accreditation requirements:**

The activities that fall under the term environmental services can be classified as follows:

##### **2.1 Environmental research and studies:**

This activity involves development of environmental impact assessments for industrial and development activities. It includes:

- a. Environmental assessment studies
- b. Environmental consultation services

##### **Requirements for certification to engage in this activity:**

- Provide the Presidency with the CVs of technical personnel which must cover all environmental media specialization (air, water and soil), states (gaseous, liquid and solid), and types (fauna and flora). Academic



qualifications shall not be less than a doctorate or master's degrees and minimum experience of 3 years or bachelor's degree with minimum experience of 5 years.

- Saudi employees with environmental qualifications.
- Environmental analysis performed by laboratories accredited by the Presidency.

## **2.2 Municipal solid waste management:**

This activity involves collection, transportation, disposal and recycling of non hazardous municipal wastes. It includes:

- a. Collection, transportation and storage.
- b. Recycling and reuse.
- c. Final disposal.

### **Requirements for certification to engage in this activity:**

- Provide the Presidency with details on the vehicle fleet used for waste transportation.
- Submit to the Presidency detailed description of the waste storage site.
- Submit to the Presidency details on the technology used and extent of its suitability and efficiency.
- Preparation of the disposal site so as to prevent seepage of pollutants into groundwater aquifers.
- Supply the disposal site with a fire extinguishing system and develop a safety and contingency plan.

### **Requirements for recycling and reuse are as follows:**

- Identify the site of the recycling plant.
- Describe the treatment, sorting and recycling stages and the recycling method and technology used.



- Accurately identify the scope of work and materials to be recycled confined to this activity.
- Identify the residual non recyclable wastes generated and the means for their disposal.
- Prepare the floor of the plant so as to avoid any seepage into the groundwater aquifer.

### **2.3 Hazardous waste management:**

This activity involves collection, transportation, storage and disposal of industrial hazardous wastes in an environmentally sound manner, such as landfill designed for hazardous waste, biological processing and other methods. It includes:

- a. Transportation
- b. Storage
- c. Treatment and final disposal

#### **Requirements for certification to engage in this activity:**

- Identify and describe the work site and surrounding environment and if necessary, submit an environmental impact assessment study for the specific site.
- Depending on the volume and location of the project, drill test wells and submit related analysis.
- Submit details of the waste transportation fleet and support equipment.
- Identify the method of waste disposal and the technologies used.
- Identify the type of waste and its composition defining the risks associated with exposure to such substances.
- Identify the pollution control technologies to be used.
- Prepare the disposal site in such a way as to prevent pollution seepage into groundwater aquifers.
- Supply the site with safety and fire extinguishing systems.



- Develop a contingency plan to respond to emergencies while transporting the waste and on site.
- Submit detailed statements on the drivers experience and training and identify the applicable itinerary and shipment times.

**Site preparation requirements:**

1. Select a suitable site far from populated areas.
2. Line the collection cells to prevent seepage of liquids into the groundwater aquifers, using HDPE geomembrane consisting of two layers of mud and calcium rich mud, a leachate collection layer over the main layer and a leachate detector layer sandwiched between the two layers. The applicant shall take into consideration the local environment, including the soil type and salinity and the type of wastes to be received.
3. Make a request for specialists from the Presidency visit the site and assess the membrane structure.
4. Execute a system of wells to extract, collect and remove the leachate for proper treatment and processing.
5. Install barriers around the installation and provide only one entrance to the facility. Upon completion of the site, develop a safety, health and emergency plan. Provide training to employees on the use of emergency equipment.
6. Pave the access roads to the site to avoid agitating dust by traffic and cover the landfill with dirt to eliminate insects and foul smell from the site.
7. Undertake the necessary study to ensure that the drainage system is capable of treatment and disposal of the pollutants present in the leachate. It is imperative to note that it is imperative that the capability of the system to process the leachate and the need for the leachate to be free from substances such as PCB, which must not be dumped in the landfill or discharged into the sanitary drainage network.



8. Establish a dedicated laboratory or use a laboratory with the Presidency's environmental accreditation to define the following properties of the wastes.
9. Explain the method to be followed by the establishment to prevent CO<sub>2</sub> and CH<sub>4</sub> emissions from the landfill.
  - a. Ignitability
  - b. Corrosivity
  - c. Reactivity
  - d. Toxicity - shall include the concentration of well recognized toxic heavy metals and toxic organic compounds.

#### **2.4 Water treatment:**

This activity involves treatment and purification of polluted water. It consists of:

- a. Treatment of industrial wastewater
- b. Treatment of ground water
- c. Treatment of sanitary wastewater

#### **Requirements for certification to engage in this activity can be summarized as below:**

- Identify the location of purification station for the industrial, sanitary networks or the treatment of polluted water sites or groundwater treatment sites, indicating their proximity to the coastline, water bodies or valleys and submit an environmental impact assessment study on the project.
- Describe the methods for transporting waste water to the site (drainage systems, water tankers etc).
- Detail the technologies used in the treatment and the method of post treatment drainage.
- Describe the degree of treatment (primary, secondary, tertiary) of the discharged industrial waste water.



- Identify the intended use of the water discharged after treatment.

### **2.5 Contaminated soil treatment:**

This activity relates to analysis and treatment of soil contaminated as a result of dumping of oil, chemicals or heavy metals, petroleum and chemical materials and leakage from improperly constructed landfill sites.

#### **Requirements for engaging in this type of activity:**

- Supply suitable machinery and equipment for collection and removal of contaminated soil.
- Provide a dedicated soil analysis laboratory manned by qualified specialists along with necessary standard analysis chemicals and reference materials.
- Provide measurement and analysis instruments and appropriate sampling containers capable of performing the following analysis on samples of contaminated soil: acidity, water soluble salts, oil & grease, chlorinated hydrocarbons, total concentrations: Cu, PAH, As, V, Hg, Ni, Pb, Mn, Zn, Co, Cr, Cd in addition to other pollutants.
- In case a company dedicated laboratory is not available, evidence of having contracted laboratories accredited by the Presidency should be submitted.
- Detail the technologies used in the treatment of contaminated soil, the method of treatment and the disposal route of pollutants removed during treatment and qualified agencies which the company will deal with in this regard.
- Provide the necessary equipment and man power required to rehabilitate and develop the affected sites after removal of the pollution.

### **2.6 Medical waste management:**





This activity relates to the management of medical wastes generated at medical centers, laboratories and hospitals and their disposal in an environmentally sound manner using technologies such as microwave, autoclave and incineration etc including:

- a. Collection and transportation
- b. Storage
- c. Treatment and final disposal

**Requirements for engaging in the field of medical wastes:**

- To make available transportation fleet for medical wastes equipped with appropriate refrigeration, preservation and protection systems. Submit evidence of the drivers appropriate training on how to handle accidents and define the transportation itinerary on public roads.
- Submit sorting and collection plans and evidence of having the prerequisite experience, knowledge and employee training to handle medical waste with the provision of equipment and clothing.
- Provide appropriate technical and scientific expertise to handle these technologies inside the facility.
- Submit the specifications of the vessels and containers used for the collection of medical waste and label such containers with internationally recognized markings.
- Submit safety and emergency response plans.
- Identify the location of the treatment facility which must be sited away from residential areas. It should be submitted as a part of necessary EIA study for the treatment and disposal.
- Prepare the storage site.
- Identify environmentally suitable methods for disposal of residual ash resulting from incineration, treated material resulting from other technologies.
- Obtain accreditation for the technology used in the treatment.



- Describe various emission control systems.

### **2.7 Marine environmental services:**

This activity is concerned with all aspects of marine pollution operations and comprises of the following:

- a. Oil pollution abatement
- b. Chemical pollution abatement
- c. Collection and transportation of polluted wastes
- d. Supply of dispersants and absorbents
- e. Disposal of polluted wastes
- f. Salvage and floating of vessels
- g. Supply of abatement equipment
- h. Beach cleaning
- i. Offshore marine response works
- j. Unloading and hauling of oil offshore
- k. Other services

### **Requirements for engaging in marine services activity:**

- Supply appropriate pollution abatement equipment and instruments according to the type of seas and beaches or base etc. and provide the means for transporting them to the scene of accident.
- Provide appropriate storage facilities for the equipment and instruments.
- Provide trained manpower of all specialization suitable for performing pollution abatement operations.
- Provide appropriate marine craft for pollution abatement and vessel floating operations.
- Obtain accreditation for the technologies used in pollution abatement, bacterial and biological dispersants and absorbents.

### **2.8 Pollution control technologies:**



This activity is concerned with the importation, installation, operation and maintenance of pollution control equipment and comprises of:

Describe various emission control systems and equipment other than treatment and incineration technologies.

- a. Importation
- b. Installation and operation
- c. Maintenance

**Requirements for engaging in the import of environmental technologies:**

- Submit the technology specifications and obtain the appropriate accreditation for each technology.
- Submit authenticated certification for the efficiency of the technology from the environmental agency in the country of manufacture and countries where the technology has been installed and is operating.
- Give a presentation to the competent agency to demonstrate the efficiency and suitability of the technology.
- Provide technical manpower for installation and maintenance.
- Obtain the required permits from the concerned agency.

**2.9 Environmental monitoring and laboratory services:**

This activity is concerned with performing environmental pollution monitoring and constructing and equipping dedicated environmental laboratories:

- a. Monitoring and analysis of water quality
- b. Monitoring and analysis of air quality
- c. Equipping environmental laboratory



### **Requirements for engaging in monitoring and laboratories:**

- Provide mobile and stationary equipment for surveillance, monitoring and measurements to perform environmental surveys and measurements.
- Provide appropriate sampling equipment and containers.
- Provide chemicals for analysis and measurements.
- Construct an equipped environmental laboratory building.
- Provide a laboratory technician and sampling technician with appropriate qualifications and expertise.
- Provide a data analysis technician.

### **2.10 Used oil management:**

This activity involves environmentally sound methods for collection, transportation, export and processing of used oils and hydrocarbons, which includes:

- a. Transportation
- b. Storage
- c. Treatment/disposal, recycling and export

### **Requirements for engaging in the field of used oil management:**

- Provide an equipped vehicle fleet for the transportation.
- Select and prepare a suitable storage site and submit an environmental impact assessment study, if necessary.
- Line the treatment cells.
- Fence the site.
- Identify the method and technology for processing and recycling of used oils.
- Identify environmentally sound methods for disposal of residual wastes after separation and treatment of used oils and hydrocarbons.

**Preparation of treatment cells:**

- Line cells with an impermeable membrane to avoid leaking into the groundwater.
- Construct a collection area for leachate in the middle of the cell.



**Appendix-4**

**Hazardous Waste Control Rules and Procedures**

**Document 01- 1423**

**Presidency of Meteorology and Environment**

**Ministry of Defense and Aviation**

**Kingdom of Saudi Arabia**



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**Preface:**

Wastes can be defined as substances which have been discarded or neglected and which cannot be put to good or beneficial direct use. Hazardous waste is a type of waste with characteristics that render them hazardous to man's health and to the environment. They can be toxic, highly reactive, flammable, explosive, corrosive, infectious or radioactive in nature. The issue of hazardous waste pollution has become significant, receiving great attention from national and international organizations concerned with the protection of the environment due to the havoc and health and environmental risks that such wastes can cause in the event of improper discharge into the environment.

The existence of an effective national hazardous waste management plan and minimization of their risks has become a matter of utmost urgency and necessity in order to control pollution by this type of waste and consequently preserve man's health, safety and welfare, environmental health and conservation of natural resources.

Based on this premise, and due to its authority, duty and responsibilities for protecting the environment, enhancing its quality and preventing pollution and complying with Article II, Decision No.86, dated 20 Sha'ban 1399 (14 July 1979) of the Supreme Commission for Administrative Reform, sanctioned by Royal Decree No. 7/M/8903, dated 21 Rabi'II 1401 (25 February 1981), the Presidency of Meteorology and Environment has developed environmental protection standards, including, among other things, control of hazardous wastes, according to the following.

**Article I:**

These environmental protection standards for the control of hazardous wastes are designed to establish appropriate procedures to control the processes of production, transportation, storage, treatment and final disposal of hazardous wastes in the Kingdom of Saudi Arabia in ways that would prevent detrimental impacts on man's health, safety and welfare and that would preserve the Kingdom's environment and



resources in general. These standards also aim to encourage and develop waste recycling processes in ways that would take into account the protection of man and the environment.

**Article II:**

For all intents and purposes of these procedures, the following terms and expressions shall have the meaning assigned against each, except where the context requires otherwise:

- Presidency:** Means the Presidency of Meteorology and Environment, established by High Order No. 7/M/8903, dated 21 Rabi'II 1401 (25 February 1981).
- Storage pond:** Means any hole or depression in the ground basically made of soil matter to retain the accumulated liquid.
- Storage:** Means retaining or containing wastes in a manner that does not constitute final disposal or treatment of wastes.
- Disposal:** Means incineration, sedimentation, injection or discharge of any waste where one or more of its components is introduced into an environmental media (soil, air, or water including groundwater).
- Discharge:** Means deliberate or inadvertent leaching, pumping, emitting or dumping of any waste, including hazardous wastes, into or to the land, water or air.
- Environmental** Means the study (ies) performed prior to licensing of a project to **impact** identify the potential environmental impacts, the appropriate **assessment** procedures and methods for prevention or control of the negative.



- report:** Impacts and the maximization of the project's positive impacts on the environment.
- Lethal dose for** Means the dose of a chemical substance administered orally or **50% of the** absorbed through the skin and which may lead to the death of 50%
- species:** of the laboratory animals exposed to the substance.
- Container:** Means any vessel used to store or transport hazardous wastes.
- Sludge:** Means any solid, semi solid or liquid wastes resulting from the treatment process of domestic, commercial and industrial waste water, or any other contaminated water, or resulting from drinking water treatment processes or from air pollution control equipment, but does not cover treated effluent from treatment plants.
- Outside the site:** Means beyond the boundary fence of the relevant facility.
- Identification code:** Means the number designated by the Presidency for any hazardous waste generator, transporter, storage, treatment or disposal facility.
- Person:** Means representative of any establishment, firm, commission, ministry, municipality or any governmental or non governmental agency.
- Waste heap:** Means non-liquid wastes not placed in containers and which are not in landfills or collection and storage ponds.



- Operating** Means the person who owns all or part of the facility or the person **owner:** in charge of the facility operation management.
- Landfill:** Means any facility where wastes are disposed of using an environmentally safe method by placing such wastes on or under ground provided that such land is neither a ground treatment facility or collection pond.
- Facility** (**Facility** Means any facility, including the land on which it is established and **For Hazardous** any modifications subsequently introduced, used to store, treat and **Waste** dispose of hazardous wastes.
- Management):**
- Specific Facility:** Means the facility for hazardous waste management in the Kingdom which receives hazardous wastes enlisted in the transport manifest and which has an identification code and permit to operate issued by the Presidency and permits from concerned government agencies.
- Ground** Means any facility where wastes are deposited or blended with the **Treatment** soil as a waste treatment method.
- Facility:**
- Treatment:** Means the method or technology used to alter the physical, biological or chemical property or composition of the wastes. It is used to neutralize the wastes to allow utilization of its substances or energy. It is to convert hazardous wastes to non hazardous or less hazardous wastes or more safety for the purpose of transportation, storage and disposal or to make it suitable for the purpose of storage and reduction of its volume.



**Enclosed** Means the process in which waste treatment is directly linked to the **internal** industrial production process and which is used to avoid leakage of **treatment:** wastes or any of their components into the environment during the treatment process.

**Environmental** Means the standards issued by the Presidency to explain the overall **protection** policy for the control of pollution in the Kingdom which shall be **standards:** applied to the design and operation of the facility.

**Hazardous** Means the chemical, physical and biological properties of the **waste** wastes which correspond to one or more sections of the hazardous **characteristics:** wastes properties listed in attachment IV.

**Producer:** Means the person who generates or is the principal cause for the generation of hazardous wastes to which these standards apply.

**Ground water:** Means water found underground within the zone of a saturated area (at > 1 atm. Pressure).

**Transporter:** Means the person who is engaged or intends to be engaged in providing land, air or marine transportation of hazardous wastes outside the site.

**Safety data** Means comprehensive lists of all facts and information related to a **bulletin:** specific type of hazardous waste, including safety and emergency procedures and method of disposal etc.

**Waste:** Means waste as identified in paragraph a, Article IV.

**Hazardous waste:** Means the hazardous waste identified in paragraph b, Article IV.



**Transportation** Means the form identified by the Presidency to track hazardous **document:** wastes from the point of generation to the point of storage, treatment or final disposal.

### **Article III:**

#### **Scope:**

These environmental protection standards (for hazardous waste control) shall apply to any and all producers and persons involved in the transportation, storage, treatment and disposal of hazardous wastes.

#### **Scope:**

- a) The Presidency shall be the sole agency with the right to interpret and define the scope of these standards.
- b) The Presidency reserves the right to amend and add supplements to these standards whenever needed.

### **Article IV:**

#### **The Concept of Wastes and Hazardous Waste:**

This article defines the concepts of waste and hazardous waste that are subject to the environmental protection standards for control of hazardous wastes and define all exceptions to that.

#### **a- Waste:**

Wastes are discarded or abandoned substances not excluded under Article IV (c-1) which must be disposed of for any of the reasons listed under attachment I by use of any of the processes listed under attachment II. Wastes include discarded substances as well as substances to be recycled if



collected and accumulated before recycling, incinerated for energy or for use as a fuel or for production of fuel.

**b- Hazardous Waste:**

Wastes are deemed to be hazardous in the following cases:

- (i) If they belong to any of the categories listed under attachment III or if characterized by any of the properties listed under attachment IV.
- (ii) If they are a mix of hazardous wastes with other substances.
- (iii) If the Presidency decides to consider them specifically hazardous.

**c- Exclusions from Article IV (Paragraphs a and b):**

**1- The following shall not be deemed as wastes:**

- a. Domestic sanitary waste water and other wastes passing through the sanitary drainage network to the treatment facility. This exclusion does not cover sludge resulting from the sanitary wastewater treatment facility.
- b. Final discharge of treated industrial waste water. This exclusion does not cover pre final discharge waste water.
- c. Agricultural drainage runoff.
- d. Mining residual matter remaining at their natural location in the mine during extraction.

**2- The following shall not be classified as hazardous wastes:**

- a- If they do not belong to one of the categories listed in attachment III, match any of the descriptions given in attachment IV or not subject to the description given in Paragraph b, Article IV.



- b- Domestic waste: means any waste generated in the household, hotels, residential complexes and recreational facilities.
- c- Inert waste: means any substance that is not chemically or biologically active in the natural environment. Usually in the form of glass, concrete, construction debris, plastic, wood, rubber, metal wire, metal sheets or uncontaminated soil.
- d- Commercial and industrial garbage: means commercial and industrial wastes similar to domestic inert wastes. This exclusion does not cover waste containing solvents, degreasers, oils, inks, sludge pastes, acids, alkali, or any non domestic waste.
- e- Waste resulting from agricultural and harvesting activities which are returned to the soil as fertilizer, but do not include pesticides, weedicides and chemical fertilizers.
- f- Waste resulting from animal breeding which is returned to the soil as fertilizer.
- g- The soil returned to mines after completion of the mining operations.
- h- Wastes that have been recycled in an acceptable manner.

### **Article V:**

#### **Producers of hazardous wastes:**

##### **a-Scope of application:**

The hazardous waste standards apply to all producers of wastes including various commercial, industrial and vocational institutions, companies and establishments, but do not apply to domestic waste producers.

##### **b- Standards for waste generators:**





1. Waste generators shall be held responsible for identification of the types of waste and hazardous waste they generate, as well as for ensuring that such wastes are stored, treated and disposed of in an environmentally sound manner that does not cause its dispersal and also does not cause any detrimental effect on man's health, safety and welfare or the environment and the natural resources.
2. All commercial, industrial and vocational producers of waste shall be required to:
  - a. Confirm with the Presidency as provided for in Article VIII to find out whether or not they generate hazardous wastes. There will be no need to check with the Presidency if the wastes are categorically excluded under Paragraph b, Article IV.
  - b. Refrain from hauling waste that is not excluded under Paragraph b, Article IV, outside the facility, until they confirm with the Presidency. Meanwhile such wastes shall be stored in an environmentally sound manner.

c-Standards for hazardous waste generators:

1. Based on the review provided for in Paragraph b, Article IV, the Presidency shall assign an exclusive identification code for the producer once it determines that the producer does generate hazardous wastes.
2. The producer of the hazardous wastes shall be required to do as follows:
  - a. Have a physical, chemical and biological description and analysis for all of the hazardous wastes he generates.
  - b. Store, treat or dispose of hazardous waste only after obtaining an identification code from the Presidency.



- c. Refrain from delivering or handing over hazardous wastes to transporter or to a facility which does not have a license to operate from the Presidency.
- d. Refrain from delivering any consignment of hazardous waste for transportation outside the facility without being accompanied by an approved transportation document.
- e. A hazardous waste generator who stores hazardous wastes at the site where the wastes are generated for more than three months shall be deemed operator of a storage facility and shall be required to comply with the standards for hazardous waste management facilities in Article VII.

d-Exclusion of producers of minor quantities:

1. A producer shall be considered a minor producer if the facility generates less than 100 kg or less than half a barrel a month (thirty days).
2. Exclude the provisions of Section d, Paragraphs 4, 5 and 6 of Article V, minor quantities of hazardous waste shall not be subject to the provisions of Articles VI, VII, and VIII of these standards.
3. The minor producer shall deliver the quantities generated to a facility licensed to store, process and dispose of hazardous waste.
4. A minor producer who stores hazardous waste at the site where they are generated for more than six months shall be deemed a storage facility operator and shall be required to comply with the standards for hazardous waste management facilities in Article VII.
5. If the minor producer generates more than 100 kg of hazardous waste a month, it shall be required to comply with all of the provisions of this article, including checking with the Presidency to obtain an identification code and generate a hazardous waste transportation document.
6. This exclusion shall not apply to extremely hazardous wastes, i.e. lethal to man in small doses or doses lethal to 50% of the species (oral for rats less than 50 mg per kg of body weight or



through the skin for rabbits in amounts less than 200 mg per kg of body weight) or in concentrations lethal to 50 % of the species (lethal by inhalation for rats in amounts less than 2 gm per cubic meter of the body volume) or which cause incurable or chronic diseases.

e-Shipping outside the site:

Prior to shipping any hazardous waste outside the facility, the generator of hazardous waste shall comply with the following:

1. Containerize and Pack hazardous waste in a proper and environmentally sound manner placing warning labels on each package in accordance with the specifications and standards applicable in the Kingdom.
2. Accurately fill up the product data on the appropriate section of the hazardous waste transportation document in accordance with the instructions provided in the document.
3. Confirm with the Presidency, that the storage, treatment or disposal facility designated in the transportation document is capable of managing the waste that will be sent to it.
4. Make the necessary arrangements with both the transporter who will carry the waste and the receiving facility designated in the transportation documents as the destination for the waste (such as providing the facility with full and detailed information on the waste and samples for analysis).
5. Provide the transporter with the transportation document and copy of the safety data sheets for each type of hazardous waste being transported.
6. Comply with the hazardous waste transportation instructions provided in the transportation document.

f- Keeping of records and reports:

The hazardous waste generator shall comply with the following for keeping of records and reports:



1. Keep one copy of each transport document it has generated pending receipt of the signed copy from the facility designated in the document. It shall also keep the signed copy for at least 5 years as of the date of receipt of the waste by that facility.
2. Retain, for at least five years from the last date of handling of such waste, copies of the results of all tests and analysis performed on the hazardous waste as well as copies of all pertinent reports, correspondence and documents.
3. Submit to the Presidency an annual report on all hazardous waste generated during the year. Copies of such reports shall be retained for at least five years from the date of completion.
4. Submit on demand to the Presidency or the agencies designated by it, all documents, records and reports related to the waste.

g- Special conditions:

1. Producers of hazardous waste, excluding producers of minor quantities, who store, treat or dispose of hazardous waste shall comply with the standards for hazardous waste management set forth in Article VII.
2. Producers of hazardous waste who export or intend to export hazardous waste outside the Kingdom shall be required to comply with the procedures developed by the Presidency for transportation of hazardous waste across borders and in accordance with Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal.

**Article VI:**

**Standards for hazardous waste transporters:**

a-Scope of application:

The hazardous waste transportation standards shall apply to any person who removes or intends to remove or relocate hazardous waste outside the site. These standards, however, shall apply neither to the wastes excluded under Paragraph c of Article IV nor to the relocation



of hazardous waste within the site by the waste generator or owners and operators of the hazardous waste management facilities.

b- Standards for hazardous waste transporters:

1. Transporters for hazardous wastes are not allowed to work without acquiring an operational permit for the vehicle from the concerned agency as well as an identification code and work permit from the Presidency.
2. In accordance with Article VIII, hazardous waste transporters shall apply to obtain their identification code and work permit.
3. Transporters are not allowed to accept, receive or transport any hazardous waste from a producer not having an identification code from the Presidency, or to transport or deliver any hazardous waste to a waste management facility having no work permit issued by the Presidency.
4. Transporters are obliged to prepare a contingency plan to respond to emergency and hazardous waste leakage incidents during delivery or transportation activities. Transporters should be committed to implement this plan after being approved by the Presidency.

c- Conditions for transportation:

1. Transporters shall fully comply to the delivery conditions enlisted in the transportation document attached to the transported hazardous waste. They should follow the hazardous waste transportation instructions appearing in the document.
2. Transporters are responsible for ensuring that hazardous waste shipments he intends to transport are all accompanied with transport documents and safety information sheet for all and each type of waste.

d- Reports and record keeping:



1. Transporters should keep a copy of each transportation document signed by himself, the hazardous waste supplier, and hazardous waste receiver.
4. The transporter should submit, on request, to the Presidency or the agencies designated by it, all documents, records and reports related to the transported waste.

e – Special conditions:

1. The transporter who stores documented shipments of hazardous waste for more than five days shall be deemed a storage facility operator and shall be required to comply with the standards for hazardous waste management facilities in Article VII
2. The transporter who mixes hazardous wastes with different shipping requirements inside a single container shall be required to comply with the standards for the hazardous waste generators in Article V.
3. Each transporter who exports or intends to export hazardous wastes across the Kingdom's borders shall be required to comply with the procedures set forth by the Presidency for trans-boundary transportation of hazardous wastes

**Article VII**

**Standards for hazardous waste management facilities:**

a- Scope of application:

This article explains the minimum environmental protection standards applicable to hazardous waste storage, processing and disposal facilities as well as to the owners and operators of such facilities with the following exceptions:

1. Management of the wastes excluded under Article IV (Paragraph c.2).
2. Closed internal treatment operations.
3. Wastewater treatment operations.



4. Recycling operations, excluding storage or treatment of hazardous waste prior to recycling or the hazardous wastes produced during and after recycling.
5. Treatment and disposal of hazardous waste inside the site performed by small quantity producers as defined in Paragraph d, Article V, on the condition that the accumulated quantity at any time should not be more than 100 kg.

b- Standards for hazardous waste management:

1. Producers and owners of hazardous waste management facilities shall be responsible for identifying the type of wastes that the facility deals with and for making sure that the facility's operating processes have no adverse effects on man's health, safety and welfare or on the environment and natural resources.
2. Each hazardous waste management facility shall be required to obtain a license from the relevant agency as well as an operational permit as well as an identification code from the Presidency. This shall be done by applying to the Presidency as set forth in Article VIII.
3. Each operator or owner who transports or ships wastes from the facilities shall be required to comply with the standards for producers of hazardous wastes as provided for in Article V.

c- Acceptance and receiving of waste:

Each owner and operator of a hazardous waste management facility shall be required to:

- a. Refrain from accepting any hazardous waste that is not accompanied by an approved transport document.
- b. Refrain from accepting any hazardous waste that is not accompanied by the relevant safety data sheets.
- c. Refrain from accepting any hazardous wastes from a transporter who does not possess an operational permit from the Presidency.
- d. Comply with the instructions contained in the transport documents for accepting the hazardous waste.



d- Reporting and records keeping:

The owner and operator of a hazardous waste management facility shall:

- 1- Keep records of the facility's operating processes comprising of the following:
  - a. Description of the type, quantity, method of storage, treatment and disposal of each shipment of hazardous waste received at the facility and its date.
  - b. The location and quantity of each hazardous waste shipment in the facility.
  - c. Results, records and analysis of the waste.
  - d. Summary and results of the inspection operations performed.
  - e. Details of any programs for monitoring air or ground water quality.
  - f. Details of the cases requiring implementation of the emergency plan procedures.
  - g. Outcome of the monitoring program information.
  - h. Copies of waste transport documents and related reports.
  - i. Copies of all safety data sheets related to the waste.
  - j. Any memos or reports prepared in connection with hazardous wastes processes at the facility.
- 2- Immediately submit upon request all of the records set forth in Paragraph d-1, Article VII, or otherwise make them available within a maximum period of 30 days of the request of the Presidency or the agency designated by the Presidency.
- 3- Retain all of the records set forth in Paragraph d-1, Article VII until the closure of the facility at which point copies of the records showing the quantities and final disposal locations of the wastes shall be surrendered to the Presidency.
- 4- Submit to the Presidency an annual activity report providing the following information:





- a. Name, address and the Presidency designated identification code of the facility and the period covered by the report.
  - b. The identification codes of hazardous waste generators and transporters from which wastes have been received.
  - c. Description of the type and quantity of each shipment of hazardous waste received from each producer separately.
  - d. Method of storage, treatment or disposal of each shipment of hazardous wastes.
- 5- Submit to the Presidency every three months the air quality information set forth in Paragraph e-4, Article VII. Such information shall provide a summary on each violation of the air quality standards established by the Presidency.
- 6- Submit to the Presidency a copy of each completed transport document for each consignment of hazardous waste as per instructions set forth in the transportation document.
- 7- Have all reports, records and information mentioned in this article authenticated by the owner or operator of the facility or their representative.

e- The programs required for the facility:

**1- General Programs**

All owners and operators of hazardous waste facilities shall be required to develop the following general programs and plans (and make a copy of it available):

- a. A waste analysis plan indicating the methods of physical, chemical and biological analysis for each type of hazardous waste handled in the facility.
- b. A plan detailing the inspection procedures for the safety and security instrumentation, operation, monitoring and emergency equipment in the facility and a schedule



- showing the frequency of inspections and the type of troubleshooting.
- c. A plan for training facility personnel on the hazardous waste management processes, inspection and emergency procedures and use of emergency equipment.
  - d. A security plan showing the method of denying unknown and unauthorized persons access to the hazardous waste management zone in the facility.
  - e. Procedures describing methods avoiding ignition of flammable and reactive wastes or sudden reactions and ways to avoid mixing of incompatible wastes.
  - f. Emergency plan describing the emergency equipment, detailed processes for controlling explosions and leaks of hazardous waste, evacuation procedures and emergency exits for the facility personnel.
  - g. Plan showing the closure procedures of the hazardous waste units, pollution cleanup operations, maintenance and monitoring of units and facilities as may be required after each closure. Care of each unit should begin immediately after closure and continue for thirty years. The post-closure maintenance and monitoring procedures shall be coordinated with the Presidency.
  - h. Occupational health and safety program and a plan describing personnel medical check up procedures.

## **2- Special Programs**

The owners and operators of hazardous waste management facilities shall implement the appropriate specific programs for facility operations designated by the Presidency, which shall include the following:

- a. Design, construction, operation and maintenance of hazardous waste management units in an environmentally sound manner that would ensure absence of leaks of hazardous wastes and any of their components into the environment.



- b. Specifications of the hazardous waste storage, treatment and final disposal processes.
- c. Periodical monitoring and inspection of hazardous waste management units and operation equipment.
- d. Decontamination of the facility and the equipment and instruments used at the time of closure and for the duration required to retain the site of the closure facility.
- e. Any other environmental conditions and considerations that the Presidency deems necessary and binding.

### 3- Groundwater monitoring programs:

- a. Owners and operators of storage ponds, waste impounds, landfills and similar facilities shall be required to design and install ground water monitoring programs that allow immediate detection and identification of leaks from hazardous waste storage and treatment processes to ground water resources. Technical procedures of such monitoring shall be undertaken in consultation with the Presidency.
- b. The ground water monitoring program requirements may be waived if the Presidency rules out the possibility of leaks into the ground water aquifer based on the facility design parameters and hydro-geological data.
- c. If the ground water monitoring data indicate a high water table, the Presidency may demand additional procedures, including:
  - (i) Detailed description of the characteristics of the impact.
  - (ii) Modification of the monitoring program.
  - (iii) Study and implementation of a program for removal and addressing any ground water contamination by hazardous waste.
  - (iv) Any other procedures that the Presidency deems necessary for the protection of human health and of environment.
- d. Information on the ground water quality gathered under this paragraph shall be submitted to the Presidency every



six months during the facility operation period and annually during the post shutdown period. Such reports and information shall indicate any possible impact on the ground water.

#### 4- Air quality control programs:

- a. Owners and operators of storage ponds, waste impounds, landfills and similar facilities shall be required to install appropriate air quality monitors as the Presidency deems necessary. Such monitoring of air quality shall be undertaken in consultation with the Presidency.
- b. The air quality monitoring program requirements may be waived if the Presidency rules out the possibility of negative impacts on the ambient air quality based on supporting data (such as facility design parameters).
- c. If the air quality monitoring data indicate progressive negative impacts on the ambient air quality, the Presidency may demand additional control procedures, including:
  - (i) Installation of emission control instruments.
  - (ii) Modification of the monitoring program.
  - (iii) Modification of the procedures used in the facility for handling, storage, treatment and disposal of hazardous waste.
  - (iv) Any other procedures that the Presidency deems necessary for the protection of human health and environment.
- d. The ambient air quality information gathered under this paragraph shall be submitted to the Presidency at least quarterly during the facility operation period. The information report shall include a summary on each violation of the air quality standards and the steps taken by the facility to minimize emissions.

#### **Article VIII:**



The owner, operator or official of the establishment or company shall be required to authenticate all information submitted to the Presidency. The Presidency reserves the right to request more information, examination, tests or analysis to verify the accuracy of the information provided to it and the extent of compatibility with the environmental protection standards.

a- Procedures related to waste generators:

1. Under Paragraph b, Article V, producers of wastes from commercial, industrial or occupational facilities excluding specified exceptions shall submit the following information to the Presidency:
  - a. Name, address and telephone number of waste generating facility owner and operators.
  - b. Name, telephone number, mailing address and contact of the waste generating facility.
  - c. Location and area of the facility, enclosing a map depicting the site to an appropriate scale.
  - d. Nature of the facility (brief description).
  - e. Description of the waste generating activities and operations.
  - f. Type, properties and monthly quantities of all wastes generated by the facility.
  - g. Brief description of the facility's waste storage, treatment and disposal activities and the equipment used for these purposes, enclosing a site plan depicting the location of each to an appropriate scale.
  - h. Identification of the hazardous wastes produced in the facility in accordance with the definitions in Article IV.
  - i. Description of the methods used for processing and disposal of hazardous wastes (inside and outside the facility).
  - j. Identification of any other environmental discharges or emissions from the facility (such as waste water, air emissions and others).
2. The Presidency will notify public facilities that generate hazardous waste and require them to contact the Presidency



providing the information set forth Paragraph 1, Article VIII within 90 days of the notification.

3. Proposed facilities (under setting up or construction), which produce hazardous waste shall be required to contact the Presidency and submit to it the information set forth in Paragraph a-1, Article VIII within 60 days from the date of issue of the license by the relevant government agencies.

b- Procedures related to hazardous waste transporters:

Under Paragraph b, Article VI, hazardous waste transporters shall be required to submit a written application to obtain both an identification code and a work permit from the Presidency. The following information is required:

- (a) Name, address and telephone number of the transporter (of the owner and operator) and the location of the head office.
- (b) Description of the means of transportation and the equipment used as well as the locations where the waste will be stored.
- (c) List of the emergency equipment and their capabilities.
- (d) Designated facilities for cleaning and maintenance of the equipment and means of transportation.
- (e) Inspection plan for the equipment, means of transportation and waste collection locations.
- (f) The contingency plan to be used in cases of emergency and the event of hazardous waste leaks during delivery, acceptance and transportation operations.
- (g) Description of the personnel training program.
- (h) Identification of the service zones and transportation routes.
- (i) Identification of the type and volume of the anticipated hazardous waste that will be transported and accommodated.
- (j) Any other information that the Presidency deems necessary.

c- Procedures related to hazardous waste management facilities:

1. Under Paragraph b, Article VII, all hazardous waste management facilities shall be required to obtain an identification code and work permit from the Presidency. Owners and operators of such



facilities shall submit a written request to the Presidency supported by the following information:

- (a) Name, address and telephone number of the facility's owner and operator.
  - (b) Name, telephone number, mailing address and contact of the facility.
  - (c) Location and area of the facility.
  - (d) Detailed description of the technologies and methods used in the hazardous waste storage, treatment and disposal processes, including the design and engineering specifications.
  - (e) Number of personnel and the specialty of each of them.
  - (f) Identification of the types of hazardous waste that can be stored, processed and disposed of at the site and the facility's operating capacity.
  - (g) Identification of any other environmental discharges or emissions from the facility.
  - (h) The precautions taken at the facility with respect to occupational health and safety.
  - (i) Any other additional information that the Presidency deems necessary.
2. The following information shall be provided by the Hazardous Waste Directorate in consultation with the Presidency, to enable the latter to issue the required work permit:
- (a) The facility's environmental impact report.
  - (b) The facility's overall programs set forth in Paragraph e-1, Article VII.
  - (c) The facility's special programs suitable for the facility operation set forth by the Presidency in accordance to paragraph e-2 of Article VIII.
  - (d) The ground water and air quality control programs set forth in e-3 & 4 of Article VII.

d- Procedures related to modification of existing facilities:



Owners and operators, be they hazardous waste generators, transporters or management facilities, who wish to introduce major modifications to an existing facility (including installation or change of storage, processing or disposal units or addition of waste flow or quality and quantity of waste that were not reviewed by the Presidency earlier), shall be required to submit the full and detailed information related to such modifications, including the design and engineering specifications.

e- Procedures related to the change of ownership or management of existing facilities:

1. The Presidency shall be notified of any change in the ownership, management or operation of any existing facility, whether such a facility is a hazardous waste generator, transporter or hazardous waste management facility. The new owner or operator shall submit to the Presidency the appropriate information required under Article VIII (paragraphs a, b and c) at least sixty days ahead of the date of such change.
2. Immediately upon effecting the change of title, management or operation, all provisions of these standards and any decisions or conditions issued shall be transferred and conveyed to the new owner or operator of the facility.

**Article IX:**

Any person who is subject to the environmental protection standards (hazardous wastes control) may apply to the Presidency for exemption from or modification of any of the provisions of these standards.

a- Application Procedure:

An application shall be submitted to the Presidency providing the following information:

1. Name and address of the applicant.
2. Identification of the provisions of the standards for which exemption or modification is sought.





3. Substantiation of the fulfillment of the provisions listed under article IX (paragraph a.2) that will lead to, based on the special circumstances of the applicant's case, substantial financial or technical burdens or any other safety related obligations to be borne by the applicant or the public.
4. If the application is approved, the applicant shall be required to submit evidence that the proposed activity will have no serious impacts on human health, safety and welfare or on the environment and natural resources and that it will be consistent with the objectives of the environmental protection standards for hazardous waste control.

b- Obligations:

If any application for modification or exemption is granted, the Presidency reserves the right to impose any specific conditions that the Presidency deems necessary to ensure that the applicant's activity will have no detrimental impacts on human health, safety and welfare or on the environment and natural resources.

**Article X:**

All information submitted to the Presidency under the provisions of the environmental protection standards for hazardous waste control can be published when needed.

Any person may apply to the Presidency to request that the information provided by him under the provisions of these standards be treated as strictly confidential. If such request is granted, the Presidency guarantees that such information shall be disclosed or published only with the written consent of the person who provided that information.

a- Confidential information:

Information of a confidential nature covers any plans, concessions, specimens, technologies, client lists, production data or classified information, subject to the condition that such information can be used



in the invention, production, or installation of a unit, deal or service of commercial value that gives its owner an opportunity to realize a commercial advantage over his competitor.

**b- Identification of the confidential information:**

The applicant under these standards shall submit a written request to the Presidency to identify the information to be classified as confidential under the information confidentiality clause.



## **Appendix I**

### **Materials Classified By The Presidency As Wastes:**

1. Products with expired validity.
2. Spilled or dumped substances or those exposed to accidents, including all materials and tools “and whatever contained within” contaminated as a result of an accident.
3. Substances contaminated as a result of a deliberate act, such as cleaning operations residues, packaging material, etc.
4. Unusable materials or parts, such as spent batteries, used catalyst, etc.
5. Materials that no longer serve the intended purpose, such as contaminated acids, contaminated solvents, spent salts, etc.
6. Industrial processes waste, such as slag, distillation residues, etc.
7. Residues from pollution control processes, such as sludge resulting from gas scrubbers, stack dust collection bags, used filters, etc.
8. Wastes from automated operations and finishing processes, such as lathe shavings, mill chaff, etc.
9. Residues from raw material use and fabrication, such as mining residues and oil field mud.
10. Fraudulent or fake materials.
11. Substances and products banned under the rules and regulations.
12. Products whose use is no longer required, such as agricultural, domestic, commercial and office refuse.
13. By-products of contaminated soil reclamation and cleaning.
14. Substances or products whose owners wish to discard or dispose of, including the above items.
15. Other production and consumption refuse not listed above.



## Appendix II

### Methods of Waste Disposal:

- a. The processes which prevent possible recovery, recycling, extraction or reuse of materials, direct and indirect reuse, which is virtually applicable. These are:

D1- depositing into in to or on land, (e.g. landfill etc.).

D2- land treatment (e.g. biodegradation of liquid or muddy wastes in soils etc.).

D3- Deep injection, (e.g. injection of waste into wells, salt domes or naturally occurring repositories, etc)

D4- Surface impoundment (e.g. placement of liquid or muddy wastes into pits, ponds or lagoons, etc)

D5- Specially designed landfills, (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc)

D6- Discharge into a water body except seas and oceans.

D7- Discharge into seas and oceans, including seabed insertion.

D8- Biological treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this section.

D9- Physico-chemical treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this section (e.g. evaporation, drying, neutralization, sedimentation, etc)

D10- Incineration and ashing on land.

D11- Incineration and ashing at sea.

D12- Permanent storage (e.g. placement of containers in a mine, etc)

D13- Blending and mixing prior to processing by any of the operations listed in this section.

D14- Repackaging prior to processing by any of the operations listed in this section.

D15- Storage pending processing by any of the operations listed in this section.



b- The processes which may result in possible recovery, recycling, extraction or reuse of materials in direct or alternative applications such as:

**R1** Use as a fuel (other than direct incineration or ashing) or as a method to generate energy.

**R2** Reclamation and regeneration of solvents.

**R3** Recycling and reclamation of organic substances which are not used as solvents.

**R4** Recycling and reclamation of metals and metal compounds.

**R5** Recycling and reclamation of inorganic materials.

**R6** Regeneration of acids or bases

**R7** Recovery of elements and components used for pollution abatement.

**R8** Recovery of components from catalysts.

**R9** Used oil re-refining or other reuses of used oil.

**R10** Land treatment spreading resulting in benefit to agriculture, ecological improvement or protection of wildlife.

**R11** Uses of residual materials obtained from any of the operations numbered R1 to R10.

**R12** Exchange of wastes for submission to any of the operations numbered R1 to R11.

**R13** Accumulation of material intended for any of the operations mentioned in this section.



### **Appendix III**

#### **Hazardous wastes:**

a- Waste Streams: These are:

- Y1** Clinical wastes from medical care in hospitals, medical centres and clinics
- Y2** Wastes from the production and preparation of pharmaceutical products, drugs and medications
- Y3** Wastes from the production, formulation and use of biocides and phyto-pharmaceuticals
- Y4** Wastes from the manufacture, formulation and use of wood preserving chemicals
- Y5** Wastes from the production, formulation and use of organic solvents
- Y6** Wastes from heat treatment and steel tempering operations containing cyanides
- Y7** Waste mineral oils unfit for their originally intended use
- Y8** Waste oils/water, hydrocarbons/water mixtures, emulsions
- Y9** Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
- Y10** Waste tarry residues arising from refining, distillation and any pyrolysis treatment
- Y11** Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
- Y12** Wastes from production, formulation and use of resins, latex, plasticizers, glues and adhesives
- Y13** Waste chemical substances arising from research and development or teaching activities which are not known and are new and whose effects on human and environment are not yet known
- Y14** Wastes of an explosive nature not subject to other legislation
- Y15** Wastes from production, formulation and use of photographic chemicals and processing materials
- Y16** Wastes resulting from surface treatment of metals and plastics



**Y17** Residues arising from industrial waste disposal operations

**b. Wastes containing the following constituents:**

**Y18** Metal carbonyls

**Y19** Beryllium and beryllium compounds

**Y20** Hexavalent chromium compounds

**Y21** Copper compounds

**Y22** Zinc compounds

**Y23** Arsenic and arsenic compounds

**Y24** Selenium and selenium compounds

**Y25** Cadmium and cadmium compounds

**Y26** Antimony and antimony compounds

**Y27** Tellurium and tellurium compounds

**Y28** Mercury and mercury compounds

**Y29** Thallium and thallium compounds

**Y30** Lead and lead compounds

**Y31** Inorganic fluorine compounds excluding calcium fluoride

**Y32** Inorganic cyanides

**Y33** Acidic solutions or acids in solid form

**Y34** Basic solutions or bases in solid form

**Y35** Asbestos (dust and fibres)

**Y36** Organic phosphorus compounds

**Y37** Organic cyanide compounds

**Y38** Phenols and phenol compounds, including chlorophenol compounds

**Y39** Ether compounds

**Y40** Halogenated organic solvents

**Y41** Organic solvents other than halogenated solvents

**Y42** Any congener of polychlorinated dibenzo-furan

**Y43** Any congener of polychlorinated dibenzo-p-dioxin

**Y44** Organic halogen compounds other than substances referred to in this Annex (e.g. Y38, Y40, Y42, and Y43)

**c. Categories of waste requiring special consideration**

**Y45** Domestic wastes containing hazardous wastes



### Y46 Wastes arising from the incineration of household wastes

UN Class	H Code	Characteristics	Description
1	H1	Explosive	Substances, wastes or mixture of substances or solid and liquid wastes capable in themselves of producing chemical reaction, gas of high temperature, under a pressure and a velocity leading to damage to the surrounding medium.
3	H3	Inflammable liquids	Substances, mixture of liquids or liquids containing solids in a solution or suspension, such as paints, varnishes, lacquers, etc that emit flammable vapours in temperatures not more than 60 C
4.1	H4.1	Inflammable solids	Solid substances or wastes, other than those classified as explosives, which are flammable in transit and which may cause or contribute through friction to ignition of fires
4.2	H4.2	Spontaneous combustion	Substances or wastes that are spontaneous and self heating under normal circumstances in transit or capable of heating in contact with air whereupon it becomes flammable
4.3	H4.3	Materials emitting inflammable gas in contact with water	Substances and wastes exposed when they react with water to becoming spontaneously flammable or emitting flammable gases
5.1	H5.1	Oxidizing substances	Substances and wastes that may not necessarily be spontaneously flammable, but may generally cause or contribute to the ignition of other substances through production of oxygen.
5.2	H5.2	Organic peroxides	Organic substances and wastes which are thermally unstable containing univalent and bivalent compounds
6.1	H6.1	Poisonous (acute)	Waste substances that may cause death or seriously hurt or cause damage to human health if ingested, inhaled or came in contact with the skin
6.2	H6.2	Infectious substances	Substances or wastes containing micro organisms or their toxins, known or suspected of causing diseases in man or animals
8	H8	Corrosive substances	Substances or wastes which cause, through chemical reactions, serious damage on contact with live tissues or cause in the event of leakages material damage to or even destruction of and other risks to goods or means of transportation
9	H10	Liberation of toxic gases in contact with air or water	Substances and wastes which may emit toxic gases in large quantities when they react with air or water
9	H11	Toxic (delayed or chronic)	Substances or wastes which cause delayed or chronic effects, including cancer, when they are inhaled or ingested or if they penetrate the skin
9	H12	Eco-toxic	Substances or wastes which may cause when released direct or delayed damage to the environment due to accumulation in living organisms or their toxic effects on bio-systems
9	H13		Substances capable, by any means, after disposal, of yielding another material, e.g. leachate, which possesses any of the characteristics listed above.





Corresponds to the hazardous waste classification system provided in the UN's recommendations on the transportation of hazardous goods (ST/SG/AC. 10/1/REV.5, UN, New York, 1988).



**Appendix - 5**

**The National Contingency Plan for Combating Marine  
Pollution by Oil and Other Harmful Substances in Emergency  
Cases**

**As Approved by Council of Ministers Decision No 157, dated  
20 Dhu al-Qa'dah 1422 [3 June 1991]**



### **Article I: Definitions:**

For all purpose of this plan, the following definitions are given to the following terms:

**Plan:** Shall mean The National Contingency Plan for Combating Marine Pollution by Oil and Other Harmful Substances in Emergency Cases.

**Pollution:** Shall mean pollution by oil and other Harmful Substances in Emergency Cases.

**Presidency:** Shall mean Presidency of Meteorology and Environment.

### **Article II: General Policy and Objectives:**

#### **(a) General Policy:**

The Kingdom's general policy in the area of oil exploration, production, use and transportation of oil and other harmful substances is for minimization of environmental, health and economic damages arising from such activities, confining such damage as much as possible and taking immediate actions in case of any pollution to limit potential long term damage to the environment and human health and welfare.

#### **(b) Objectives:**

The plan is intended to develop an immediate response and coordination system to protect the Saudi coast and marine environment from the impact of pollution through maximum utilization of resources and capabilities available regionally and globally, which includes alert and coordination of all available capabilities including equipment, manpower and expertise required to combat pollution incidents.

The plan also targets fulfillment of the Kingdom's obligations as provided for in regional and international agreements, conventions and protocols for the protection of marine environment and any other related agreements that the Kingdom is party to.



### **Article III:**

#### **Response levels:**

##### **a- Response Process for Control of Pollution at the National Level:**

The Presidency shall undertake the following actions concerned with the implementation of emergency pollution control operations in coordination with other relevant agencies:

- Development of a relevant marine environment pollution control policy in the Kingdom.
- Act according to the provisions of the protocols of regional cooperation for pollution abatement as well as any other regional or international obligations of a similar nature to which the Kingdom has committed to.
- Survey, monitor and undertake the necessary studies for tracking oil spills as well as environmental studies for determination of the pollution impact.
- Administration of the plan and coordination of implementation procedures.
- Identification of equipment needed for the plan.

##### **b- Pollution Control Response Operations in the Red Sea and Arabian Gulf Areas:**

An Operation committee shall be set up for each of the Red Sea and Arabian Gulf. Each committee shall consist of the response personnel from the following agencies:

1. Ministry of Defense and Aviation (Presidency of Meteorology and Environment Area Coordinator to serve as Chairman of the Committee)
2. Ministry of Interior (Coast Guard, Civil Defense)
3. Ministry of Petroleum and Mineral Resources



4. Ministry of Municipal and Rural Affairs
5. Saudi Ports Authority

Area Operations Committee may solicit participation by representatives of any other agencies as required and shall plan and coordinate the overall response process in both areas in cases where pollution events require an effort on the regional level. The Committee shall be tasked with the following duties:

1. Review of the local emergency plans for marine and coastal installations and facilities (Paragraph b, Article IV).
2. Identification of the human resources and equipment required to combat pollution from the facilities and installations in the concerned area according to what has been agreed upon with these facilities and installations.
3. Supervision of the implementation plan.
4. Preparation and Development of a comprehensive emergency plan covering the area (Paragraph a, Article IV), comprising all local plans and taking the necessary action to provide capabilities needed to combat pollution.
5. Follow-up reports of pollution incident on an area level.
6. Identification and evaluation of the operating condition of pollution abatement equipment.
7. Ensure adequate training of response operations personnel.
8. Taking the necessary precautions to supply medical care to the parties affected by the pollution incident in cooperation with the Ministry of Health.
9. Any other functions and duties that the Environmental Protection Coordination Committee may deem appropriate to incorporate.

The Chairman of the operational committee should submit periodical reports of the activities of the committee to the Presidency.

**c- Local pollution control response operations:**

The following agencies shall undertake pollution prevention, protection and combating activities within the marine and coastal



areas and facilities belonging to them. Each of these authorities shall appoint responsible person for the response activities in each of its facilities or area controlled by them.

1. Ministry of Defense and Aviation (Presidency of Meteorology and Environment and Royal Naval Forces).
2. Ministry of Interior (Coast Guard).
3. Ministry of Petroleum and Mineral Resources and the companies and Establishments attached to it.
4. Ministry of Water and Electricity
5. Ministry of Industry and Commerce.
6. Ministry of Municipal and Rural Affairs (municipalities of coastal cities).
7. Saudi Port Authority.
8. Saline Water Conversion Corporation.
9. Royal Commission for Jubail and Yanbu'
10. Any other agency that may have marine or coastal facilities and installations.

#### **Article IV:**

##### **Area Plans and Local Plans:**

The plan shall be implemented through the development and implementation of an area pollution control plan for the Kingdom's exclusive economic zones on both the Arabian Gulf and the Red Sea as well as through local plans for the marine and coastal installations and facilities as follows:

##### **a - Area plan:**

The area operations committee shall develop an area plan in consultation with other agencies listed under Paragraph c, Article III. Such plan shall incorporate the executive guidelines and procedures required for responding to cases of pollution at the area level and shall include the following:

- The package of relevant local plans in the area.



- The survey, monitoring and control system to detect and report pollution in Saudi waters and coastal areas in the area.
- Alert system for the Area Operations Committee.
- Guidelines on the duties and jurisdiction of the area response officers.
- Identification of the local support agencies concerned with the pollution response operations and identification of their senior officers.
- Identification of the pollution response resources available in the area, including the manpower and equipment acquired by both government and non government agencies.
- Procedures for communications, equipment and manpower between installations and facilities providing support in pollution control until direct risk is halted.
- Identification of critical water use facilities and ecologically sensitive areas and methods to be used for their protection.
- Identification of potential pollution sources and estimation of the maximum potential quantity of oil from each source.
- Instructions for obtaining marine information, meteorological marine data and projections of oil slick trajectories.
- Information records, instructions on their collection and documentation procedures for pollution incidents.
- Identification of the best possible oil pollution containment, clean up and disposal methods including the procedures to obtain the necessary permits.
- Assessment of the financial expenses incurred as a result of a local pollution incident, as well as the compensation of the concerned party that has undertaken the operation of combating the pollution in accordance to the arrangements made so far between the two parties.

#### **b- Local plans:**

The agencies listed under Paragraph c of Article III shall be required to develop, in consultation with the Presidency, a pollution control plan within the area of their jurisdiction. The plan shall be submitted



to the Area Operations Committee. Such plans shall provide the guidelines required for response operations, including:

- Guide on the duties of pollution response officers, including the names of officers and their contact details.
- Procedures related to communication and distribution of manpower and equipment.
- Procedures identifying methods of contacting the Presidency, Area Operations Committee and other concerned agencies.

### **Article V:**

#### **Responsibilities:**

The Presidency and other organizations having marine activities or facilities shall be entrusted with various activities related to the emergency response operations related to pollution. In addition to the activities assigned to it under this plan, the Presidency shall prepare and disseminate and monitor implementation of the policies, regulations and procedures combating and prevention of pollution.

#### **a- Coordination:**

The Presidency shall coordinate the activities of all other agencies involved in the pollution response operations according to prior arrangements agreed upon between the Presidency and those organizations.

#### **b- Surveillance, Monitoring and Control:**

The Presidency shall use the financial resources available in the budgetary plan and shall in cases of emergency seek the help of the Ministry of Petroleum and Mineral Resources, the Saudi Ports Authority, Directorate General of Civil Defense and the Coast Guard to perform the surveillance, monitoring and control operations in the waters of the Kingdom's exclusive economic zone in accordance with the arrangements to be agreed upon between the Presidency and the agencies mentioned above. The surveillance shall include:





- Aerial survey
- Marine Monitoring
- Coastal survey
- Remote sensing
- Surveillance reports from military, civilian and private aircraft and ships
- Any other available devices

**c- Protection:**

All agencies which have marine or coastal installations and facilities mentioned in Paragraph c, Article III, should provide necessary protection to these facilities and installations, including manpower, tools and equipment. Such equipment must be in good working order and ready for immediate use in case of any emergency pollution incident.

**d- Combating:**

Subject to criteria agreed upon between the Presidency and the relevant agencies, all agencies which have marine and coastal installations referred to in Paragraph c, Article III, shall undertake combating operations within their respective areas and shall provide adequate equipment and manpower. Outside these areas, the Presidency shall undertake combating activities while the Coast Guard shall extend all necessary capabilities available to them.

**e- Clean-up:**

Subject to criteria agreed upon between the Presidency and the relevant agencies, all agencies which have marine and coastal installations referred to in Paragraph c, Article III, shall undertake clean-up operations within their respective areas and shall provide adequate equipment and manpower. Outside these areas, the Presidency and appropriate municipalities shall undertake clean-up



activities within the scope of responsibilities of each of them while the Coast Guard shall extend all necessary capabilities available to them.

**g- Disposal of Oil:**

The Presidency shall, in consultation with the relevant agencies, identify appropriate locations and methods of disposal for the collected oil and polluted debris.

**h- Studies:**

The Presidency shall conduct appropriate scientific studies as well as other studies related to the above mentioned activities in cooperation with national universities and research centers. The agencies undertaking such studies on the pollution in marine and coastal areas shall coordinate with the Presidency in order to make use of previous studies in this field and shall furnish the Presidency with copies of such studies.

**Article VI:**

**Implementation Procedures:**

The implementation procedures to be taken in response to pollution incidents depends on a number of factors, such as the magnitude and location of the incident, and the type of pollutant. The response procedures shall include the following phases:

**1. Phase 1- Notification:**

All agencies responsible for marine and coastal areas or agencies which have marine activities, such as the Coast Guard, the Royal Navy, fishery companies, ship captains, aircraft pilots etc. should report any pollution incident they observed to the area coordinator or the Presidency so that the necessary actions may be taken. The Presidency in turn shall circulate explanatory guidelines on the notification methodology.



## **2. Phase 2- Assessment:**

Upon receipt of notification from the area coordinator of a pollution incident, the area operations committee shall convene to assess the situation. The evaluation must include the following points:

1. Classification of the pollution as provided for in the plan's appendix.
2. Determination of the need for containment and clean-up operations.
3. Determination of the usefulness of various containment and clean-up alternatives.
4. To take necessary action to start abatement operation according to the area plan.

The area coordinator must notify the Presidency if the pollution incident has regional or global impacts requiring resources that are not locally available.

## **3. Phase 3 - containment and preventive measures:**

If the situation calls for undertaking containment action, response officers shall unite their efforts to perform the preventive measures each where concerned, taking into consideration as a top priority ensuring the safety of both the persons in charge of the operations and the public. Such procedures shall include the following:

- Attempts to stop the pollution at source.
- Deployment of containment booms to prevent oil from spreading and to protect sensitive installations and sites.
- Attempts to mitigate pollution incident damages.
- Use of dispersants as may be determined by the Presidency and agreed upon in advance with the concerned agencies.

## **4. Phase 4 - Clean-up and Disposal Operations:**



Taking into consideration, the importance of collection of oil and other harmful substances from seawater or coastal areas, the response officers in local areas shall attempt as much as possible, if the situation calls, to use appropriate devices such as scrapers, absorbent materials, bulldozers and other means within the areas of their facilities. Local response officers shall be guided by the area plan to prioritize the areas to be cleaned and identify the areas for disposal of collected substances. The area operations committee shall be in charge of supervision and follow up.

#### **5. Phase 5 - Documentation:**

The response officers in the area operations committee shall gather the necessary data and documents to identify the agency responsible for the pollution incidents. They shall assess the abatement processes, estimate the costs and conduct the environmental impact studies. The documentation shall be in the form of films and photos (if possible), eyewitness reports, completed information forms, letters, cables, contracts, field records, samples, analysis results, data, press reports, communication records etc. Upon conclusion of the response to a pollution incident, the area coordinator shall submit, within 30 days, comprehensive reports to the Presidency, detailing the evolution of the incident, the actions taken, the resources used, the financial cost, as well as the problems and the obstacles that the response operations have encountered.

#### **Article VII:**

##### **Funding:**

1. Combating activities of pollution incidents as indicated in the plan, shall be financed from and within the funds allocated for the plan in the Presidency budget and in the budgets of other agencies participating in pollution combating within their areas in accordance with the plan.
2. In emergency situations which exceed the available capabilities, the Presidency shall be permitted, by an agreement to be made between the Environment Protection



Committee President and the Minister of Finance and National Economy, to sign contracts and agreements with any other specialized party e.g. individuals, establishments, companies, government and non-government agencies, whether Saudi or non-Saudi and regional and international specialized organizations to provide the swift support as needed for the monitoring, survey, control, protection, combating, cleaning up, disposal and the assessment studies needed to confront such cases and identify their impacts.

### **Article VIII:**

#### **The National Committee for Combating Marine Environment Pollution:**

For implementation of the national plan, a working committee shall be formed to review pollution issues and recommend instructions related to the policies and trends to be adopted. The committee shall comprise members from the following agencies:

1. 1-Ministry of Defense and Aviation (Presidency of Meteorology and Environment, as Chairman and the Royal Navy).
2. Ministry of Interior (Directorate General of Coast Guard, Directorate General of Civil Defense, and the Secretariat General of the Supreme Commission for Industrial Security).
3. Ministry of Petroleum and Mineral Resources
4. Ministry of Municipal and Rural Affairs
5. Ministry of Finance and National Economy
6. Ministry of Water and Electricity.
7. Ministry of Industry and Trade
8. Saudi Ports Authority
9. Saline Water Conversion Corporation
10. Royal Commission for Jubail and Yanbu

The committee may invite from time to time any other concerned agencies to participate as consultants or observers.



### **Key Tasks of the Committee:**

- Review the policy related to control of oil and other harmful pollution incidents.
- Review of the plan.
- Approval of the area plan.
- Follow-up on the plan implementation procedures and management.
- Review the expenses of the plan.
- Issue recommendations on equipment procurement.
- Review the status of the training programs required for the plan.
- Discuss the issues related to marine pollution.
- Identify the responsibility of the parties causing pollution, take the necessary actions for formulating a claim and follow-up its settlement.
- The committee shall convene periodically or exceptionally on the request of any member.

### **Article IX:**

#### **Issuance of Executive Decisions:**

It is within the competence of HRH, the Chairman of the Environment Protection Coordination Committee to approve the decisions of the national committee for marine pollution combating and to issue the executive decisions for this plan.

#### **Attachment:**

#### **Classification of Pollution Incidents:**

##### **1-Limited Pollution Incident:**

For an agency that has marine or coastal installations or facilities, this is a pollution incident that occurs within an area belonging to the



agency responsible for combating pollution in accordance with Article V of this plan, which can be combated and contained using the agency's own resources without requesting assistance from other agencies. In such an event, the local plan shall apply.

**2- Major Pollution Incident:**

For an agency that has marine or coastal installations or facilities, this is a pollution incident occurring within an area belonging to the agency responsible for combating pollution in accordance with Article V of this plan, which does not have adequate resources to combat the pollution incident. In such an event, support may be requested from the concerned Area Operations Committee through the Area Coordinator.



**Appendix - 6**

**All Types of Violations and Penalties**





**Appendix 6.1**  
**Violations and Penalties Involving Development of**  
**Environmental**  
**Studies and Consultations**

No.	<u>Type of Violation</u>	<u>Penalty</u>
1.	Failure by the proprietor of an environmental studies office to provide environmental specialists in the field of the office's accreditation	Warning to annul the certification and a fine of not more than SR 10000
2.	Failure by the proprietor of an environmental studies office to comply with the requirement of providing a Saudi environmental specialist	Imposition of a fine not exceeding SR 3000 and requiring the office proprietor to provide a Saudi environmental specialist
3.	Failure to have the environmental analysis performed by an approved environmental laboratory at the time of environmental study being undertaken	Rejection of the analysis results, requiring that the analysis be redone by an approved environmental laboratory and a fine ranging between SR 3000 to 5000
4.	Failure to submit two copies of the environmental assessment study	The proprietor is to be notified to submit two copies and refrain from review of the study
5.	incorrect analysis results or components of environmental study	Resubmit the study and imposition of a fine of SR 5000 to 10000 on the violator
6.	Failure to submit the periodic reports in accordance with the accreditation conditions	Suspension of renewal of the accreditation granted and imposition of a fine up to SR 3000
7.	Failure to apply for renewal of the accreditation two months ahead of its expiration date or some time after its expiration	Denial of renewal and notifying the licensing authority of the revocation and a fine of SR 1000 pending renewal of the accreditation
8.	Failure to submit proposals for the study prior to its preparation	A fine ranging from SR 1000 to 3000
9.	Preparation and submittal of the study by an unaccredited agency that has not been approved by the Presidency	Rejection of the study and a fine of up to SR 5000
10.	Failure to comply with the undertakings, conditions and specifications listed in the study to obtain the environmental certificate	A fine of SR 10000



## Appendix 6.2

### Violations and Penalties Involving Preparation of a Hazardous Waste Disposal Site

No.	<u>Type of Violation</u>	<u>Penalty</u>
1.	Failure by the project proponent to prepare the disposal site in accordance with the conditions of the license issued by the Presidency	A fine up to SR 10000 and requiring the owner of the facility to comply with the conditions of the license issued by the Presidency
2.	Failure to allow the Presidency to inspect various stages of the treatment or disposal site preparation	Warning and a fine up to SR 5000
3.	Failure to fence off the landfills, dumps and excavations resulting from the extraction activities and failure to periodically maintain them, thereby exposing workers and cattle to the risks	Rectify the fencing and excavations and its maintenance. Imposition of a fine of SR 5000 to 10000
4.	Failure to deposit the hazardous wastes according to their classifications in the appropriate cells in the landfill	Addressing the resulting problem and imposition of a fine up to SR 10000
5.	Failure to maintain gas venting system, or when such a failure causes risks or explosions	Imposition of a fine of SR 1000 to 5000
6.	Continued use of a site after the license has expired	Imposition of a fine of up to SR 10000
7.	Expanding or modifying the site or use of technologies and devices without the approval of the Presidency	Suspension of accreditation and work at the site until the Presidency's approval is obtained and imposition of a fine of up to SR 10000
8.	Failure to regularly sample and analyze test wells or ambient air quality	Imposition of a fine up to SR 5000
9.	Failure to level and upgrade the site after use to a state according to the environmentally sound plan agreed upon prior to the construction	Requiring the violator to enhance the leveling and upgrade the site. Imposition of a fine of SR 5000



### Appendix 6.3 Violations and Penalties Involving Water Quality

No.	<u>Type of Violation</u>	<u>Penalty</u>
1.	Disposal of untreated sanitary wastewater in water bodies (seas, valleys, dams, sabkha)	SR 10000
2.	Disposal of untreated sanitary wastewater on land	SR 10000
3.	Discharge (injection) of untreated sanitary wastewater into ground water bodies	SR 10000
4.	Disposal of treated sanitary wastewater on open spaces, valley courses and non compliance with the environmental standards and criteria	SR 5000
5.	Disposal of treated sanitary wastewater that does not conform to environmental standards and criteria	SR 2000
6.	Discharge (injection) of treated sanitary wastewater that does not conform to environmental standards and criteria in ground water	SR 10000
7.	Disposal of sludge in the seas	SR 7000
8.	Disposal of sludge into water bodies other than marine	SR 10000
9.	Disposal of sludge in areas that are not designated for it	SR 5000
10.	Violations involving sample collection procedures that are inconsistent with the criteria	SR 2000
11.	Violations involving measurement and analysis procedures that are inconsistent with the criteria	SR 2000
12.	Pollution of ground or surface water with hazardous or toxic (harmful) substances	SR 500000
13.	Pollution of underground or surface water with high concentrations of non hazardous pollutants	SR 250000
14.	Use of inadequately licensed (without license) means of transportation for transporting polluted water (sanitary, industrial)	SR 5000
15.	Disposal of treated industrial wastewater into water bodies (such as seas, dams, sabkha water) and failure to comply with the environmental standards and criteria	SR 5000
16.	Disposal of untreated industrial wastewater into water bodies (such as seas, dams, sabkha)	SR 10000
17.	Disposal of untreated industrial wastewater at other than designated locations	SR 10000
18.	Disposal of treated industrial wastewater at other than designated lands	SR 5000
19.	Disposal of agricultural wastewater in non-compliance with environmental standards and criteria	SR 5000



### Appendix 6.4 Violations and Penalties Involving Air Quality

<b>NO.</b>	<b>Type of violation</b>	<b>Penalty</b>
1	Failure to comply with the self imposed emission source monitoring program	not more than SR 10000
2	Tampering with monitoring and observation devices	not more than SR 10000
3	Open burning of domestic and agricultural wastes	not more than SR 10000
4	Release of pollutants without advance notice	not more than SR 10000
5	Failure to report facility shutdowns resulting in pollutant gas emissions	not more than SR 10000
6	Neglect in the maintenance of pollution abatement and surveillance and monitoring equipment	not more than SR 10000
7	Failure to submit periodical reports	not more than SR 5000
8	Submittal of incorrect or inaccurate information on the type and quantity of emissions	not more than SR 10000
9	Failure to comply with the procedures related to the handling of emissions and leaks in cases of emergency	not more than SR 10000
10	Deposit or dumping of wastes, dust and ash accumulations from pollution abatement equipment at other than designated areas	not more than SR 10000
11	Failure to comply with the remediation of quarry and excavation areas	not more than SR 10000
12	Failure to operate pollution abatement, monitoring and surveillance equipment to the required efficiency	not more than SR 10000
13	Failure to use the type of fuel designated for the activity	not more than SR 10000
14	Failure to submit the monthly data and periodical reports requested by the Presidency in the specified format	not more than SR 5000
15	Vehicular emissions of smoke, carbon monoxide, hydrocarbons and particulates exceeding the standards	SR 150
16	Excessive noise pollution from vehicles and machinery	SR 200
17	Excavations and construction works outside designated hours	not more than SR 5000
18	Engaging in an activity without a license by the competent agency	not more than SR 10000
19	Failure to file and document analysis and copies of the information and data at the organization's headquarters	not more than SR 5000
20	Use of controlled or prohibited materials, technologies or devices	not more than SR 10000
21	Failure to recruit competent, qualified and experienced personnel as stated in the licensing requirements	not more than SR 5000
22	Failure to comply with the professional description of	not more than SR 5000



<b>NO.</b>	<b><u>Type of violation</u></b>	<b><u>Penalty</u></b>
	experts, technicians and workers for operating monitoring, surveillance and analysis equipment and generating air quality data and reports	
23	Failure to make available and prepare suitable sampling equipment required for industrial and services sector	not more than SR 5000
24	Use of used oils, hazardous wastes or substances as fuel in any industry without obtaining the approval of the competent agency	not more than SR 10000
25	Failure to comply with the continuous operation or periodic maintenance of the pollution abatement technologies	not more than SR 10000

### **Appendix 6.5**

#### **Violations Involving Importation and Operation of Environmental Technologies**

<b>No.</b>	<b><u>Type of Violation</u></b>	<b><u>Penalty</u></b>
1.	Failure of environmental laboratory owner to supply sampling and testing specialists and specialists on data analysis at the time of equipping the laboratory and submitting application for environmental certificate	Imposition of a fine of SR 10000 and enforcing the laboratory owner to provide the specialist
2.	Failure by environmental technology suppliers to meet specifications approved at the time of issuance of the environmental certificate	Suspending the importation of the technology and imposition of a fine of SR 1000
3.	Failure to install an integrated pollution abatement system or failing to provide appropriate maintenance and parts for an installed system.	Imposition of a fine in the amount up to SR 10000
4.	Start up of the technology prior to certification of the technology	Discontinuing the use of technology and imposition of a fine of SR 10000
5.	Failure to commit to continuous operation or periodic maintenance of the pollution abatement technology	Suspension of work and imposition of a fine up to SR 10000



<u>No.</u>	<u>Type of Violation</u>	<u>Penalty</u>
6.	Continued use of technology beyond its life span	Discontinuing the use of the technology, revocation of the approval of the technology and imposition of a fine up to SR 10000
7.	Failure to commit to the periodic renewal of the environmental accreditation certificate and submittal of the required periodic reports	Conditional renewal of the certificate after payment of a fine up to SR 10000 only.

### **Appendix 6.6 Violations and Penalties: General**

<u>NO.</u>	<u>Type of violation</u>	<u>Penalty (SR)</u>
1	Failure to fence off landfills and excavations resulting from exploration activities or failure to maintain them regularly, thereby exposing passers by to hazards	Rectify the maintenance of the fence and excavations. Imposition of a fine of 5000 to 10000
2	Failure to comply with the undertakings, conditions and specifications listed in the information submitted for obtaining the environmental certificate	not more than 10000
3	Failure to level and remediate the site after use to a state agreed prior to the original construction	not more than 10000
4	Failure by environmental technology suppliers to meet the specifications approved upon issuance of the environmental certificate	not more than 10000



**Appendix 6.7**  
**Proposed Penalties for Certain Violations**

No.	<u>Type of Violation</u>	<u>Penalty</u>
1.	Handling of hazardous wastes without having a license from the competent agency	A fine of SR 3000 and elimination of the violation at the violator's cost in accordance with the Presidency's instructions
2.	Dealing with hazardous wastes without being licensed by the competent agency	A fine from SR 3000 to SR 5000
3.	Failure to submit correct information when applying for a license for hazardous waste management	A fine from SR 3000 to SR 5000 and cancellation of the license application
4.	Handling of hazardous wastes while it is not included in the license	A fine from SR 3000 to SR 5000, warning to cancel the license and requiring the violator to have the wastes disposed of by another agency licensed to handle such waste
5.	Allowing the license to be used by another unqualified person to engage in the field of hazardous waste management without the permission of the licensing agency	A fine from SR 10000 to SR 20000 and cancellation of the license
6.	Modification of the waste management facility without the permission of the licensing agency	A fine from SR 10000 to SR 20000, cancellation of the license and removal of the modification
7.	Unauthorized operation of a facility that the concerned agency has ordered to shut down or eliminate and without approval of the competent agency	A fine from SR 10000 to SR 50000, detention for three months, or both penalties and closure of the facility
8.	Relocation without the approval of the competent agency of the contents of a facility that has been ordered for closure or removal	A fine from SR 10000 to SR 50000, detention for three months, or both penalties and restoration of the contents to the facility
9.	Violation of the license conditions set forth by the competent agency	Cancellation of the license
10.	Mismanagement which results in environmental impacts which were not anticipated at the time of licensing	Cancellation of the license
11.	Violations by the licensee of the hazardous waste storage conditions and specifications	Fine from SR 10000 to SR 20000 and license cancellation warning
12.	Failure to pack hazardous wastes in appropriate shockproof and anti spill	Fine from SR 5000 to SR 10000 and license cancellation warning



No.	<u>Type of Violation</u>	<u>Penalty</u>
	and anti-evaporation/sublimation containers	
13.	Failure to place conspicuous labels on storage vessels, indicating the type and hazard rating, characteristics and UN number of the stored material	Fine from SR 5000 to SR 10000, requiring the violator to repack the material in accordance with the specifications and license cancellation warning
14.	Failure to establish a timetable for collection of hazardous wastes so that such wastes may not be left for long periods in storage containers	Fine from SR 2000 to SR 10000, requiring the violator to develop a timetable in coordination with the licensing agency and license cancellation warning
15.	Failure to wash the storage vessels after use	Fine from SR 2000 to SR 10000, requiring the violator to rewash and position at a designated location. License cancellation warning
16.	Transportation of hazardous wastes to the waste collection facility using a means of transportation unauthorized by the competent agencies	Fine from SR 10000 to SR 20000 and license cancellation warning to the hazardous waste management facility
17.	Transportation of hazardous wastes with incompatible characteristics and qualities to the hazardous waste management facility in one or the same means of transportation	Fine from SR 10000 to SR 20000, and license cancellation warning
18.	Failure of the means of transportation to satisfy safety requirements	Fine from SR 2000 to SR 10000 and license cancellation warning
19.	The capacity of the means of transportation is not adequate for the hazardous wastes being transported, or exceeding the load limits as specified by the Ministry of Transportation	Fine from SR 2000 to SR 10000 and license cancellation warning
20.	Having drivers of the means of transportation who are unqualified and untrained in dealing with cases of emergencies and unlicensed to drive that type of vehicle	Fine from SR 2000 to SR 10000 and license cancellation warning
21.	Failure to place labels indicating the type, hazardous rating, UN number of transported material and optimal course of action to deal with emergency cases	Fine from SR 10000 to SR 20000 and license cancellation warning
22.	Failure to provide the itinerary of the vehicle and to notify and secure the approval of Civil Defense adequately	Fine from SR 2000 to SR 10000 and license cancellation warning





No.	<u>Type of Violation</u>	<u>Penalty</u>
	in advance, prior to proceeding with the transportation process, and/or change the route without advance approval	
23.	Failure to notify Civil Defense with the address of the facility to which the carrier will transport the hazardous wastes	Fine from SR 2000 to SR 10000 and license cancellation warning
24.	Transport of hazardous wastes to an agency or facility not authorized by the licensing agency.	Fine from SR 2000 to SR 10000 and license cancellation warning
25.	Failure to obtain an identification code from the licensing agency	Fine from SR 2000 to SR 10000 and detain the vehicle
26.	Transportation of unauthorized hazardous wastes or transportation of hazardous material other than the material specified in the transportation manifest	Fine from SR 10000 to SR 20000 and license cancellation warning
27.	Failure to carry the manifest of the wastes being transported	Fine from SR 10000 to SR 20000 and license cancellation warning
28.	Violation of the approved and required method for the treatment and disposal of hazardous waste	Fine from SR 10000 to 20000 and license cancellation warning
29.	Failure to obtain a license for the treatment and disposal facility	Fine from SR 2000 to SR 10000 and stop operation of the facility
30.	Treatment and disposal of the hazardous waste in a way that may cause damage to the environment	Fine from SR 2000 to SR 10000 and stop operation of the facility
31.	Acceptance of hazardous waste other than indicated or enlisted in the documentation	Fine from SR 2000 to SR 10000 and stop operation of the facility
32.	Disposal of hazardous waste other than the waste that the facility is licensed to process	Fine from SR 2000 to SR10000 , returning the hazardous waste to their originator and enforcing him to have the wastes disposed of by a facility licensed to accept such wastes. Warning to suspend the operations of the facility which accepted such waste
33.	Failure to fully treat and dispose of the hazardous waste in an appropriate manner	Fine from SR 2000 to SR 10000 and enforcing the facility to dispose of in the appropriate manner specified by the licensing agency
34.	Having the hazardous wastes deposited in a treatment facility be	Fine from SR 2000 to SR 10000 and enforcing the facility to dispose of in an



No.	<u>Type of Violation</u>	<u>Penalty</u>
	processed by another facility without prior approval of the licensing agency	appropriate manner specified by the licensing agency
35.	Acceptance of hazardous wastes in excess of the facility's licensed or actual capacity	Fine from SR 2000 to SR 10000 and enforcing the facility to return the wastes to the producer and notifying the licensing agency accordingly and warning to close the facility
36.	Acceptance of hazardous waste from other facility without prior permission from the licensing agency	Fine from SR 2000 to SR 10000 and enforcing the facility to return the waste to the facility and notifying the licensing agency accordingly and warning to close the facility
36.	Failure to notify the licensing agency in advance of contracting with the waste generator to dispose of hazardous waste in his facility	Fine from SR 2000 to SR 10000 and enforcing the facility to return the waste to the origin and notifying the licensing agency accordingly and warning to close the facility
37.	Failure to establish a periodic program for monitoring the environmental impacts on the air, water and soil at the treatment and disposal site either during land-filling or thermal treatment	Fine from SR 2000 to SR 10000 and enforcing the facility to set up a periodical monitoring program and notifying the licensing agency accordingly and warning to close the facility
38	Failure to provide information on the results of periodic monitoring to the licensing agency and covering up the necessary information in the event of occurrence of harmful impacts on the environment	Fine from SR 2000 to SR 10000, enforcing the facility to correct the situation and remediate the resulting the environmental damage, notify to the licensing agency and stop the operation of the facility until the conditions are improved and an approval of the licensing agency is obtained
39.	Failure to apply the specifications for the construction of landfills, storage, loading or unloading sites. The appearance of a future defect as a result of non compliance with the construction specifications or violation of the safety requirements at the facility	Fine from SR 10000 to SR 20000, enforcing the proponent to redesign the facility in accordance with the construction specifications, complete remediation of any environmental damage, disposal of the hazardous wastes deposited at the facility in an environmentally sound manner in coordination with licensing agency. Closure of the facility pending rectification of the situation and obtaining final approval by the licensing agency.
40.	Failure to install safety, security, alarm, protection systems and first aid equipment in appropriate number and	Fine from SR 10000 to SR 20000 and enforcing the proponent to provide safety, security, alarm, protection systems and first



No.	<u>Type of Violation</u>	<u>Penalty</u>
	quantity	aid equipment in the appropriate number and quantity
41.	Failure to have in place an emergency plan approved by the licensing and concerned agencies	Fine from SR 10000 to SR 20000 and enforcing the proponent to have in place an emergency plan and training facility for employees
42.	Failure to undertake periodic medical check ups of personnel	Fine from SR 1000 to SR 5000, enforcing the proponent to have the employees examined and submit the examination findings to the licensing agencies for verification and, in the event of harm, have the employees treated at the employer's expense
43.	Failure to maintain records on the hazardous waste received and disposed of, the organization (s) with which it has concluded contracts and the accidents suffered by the facility and its personnel	Fine from SR 5000 to SR 15000 and enforcing the facility to submit the records. In the event of failure or submittal of falsified information, the penalties of fine, imprisonment for a period of not less than two months and permanent closure of the facility will be imposed