<Appendices>

Appendix 1 Law on Environmental Protection (LEP)

SOCIALIST REPUBLIC OF VIETNAM Independence - Freedom - Happiness

NATIONAL ASSEMBLY OF THE SOCIALIST REPUBLIC OF VIETNAM IX Legislature, 4th Session

(from 06 to 30 December 1993)

LAW ON ENVIRONMENTAL PROTECTION

The environment is of special importance to the life of humans and other living creatures as well as to the economic, cultural and social development of the country, the nation and mankind as a whole.

In order to raise the effectiveness of state management and the responsibilities of the administration at all levels, of state agencies, economic and social organizations, units of the People's Armed Forces and all individuals with respect to environmental protection with a view to protecting the health of the people, ensuring the right of everyone to live in a healthy environment and serving the cause of sustainable development of thecountry, thus contributing to the protection of regional and global environment;

Pursuant to Article 29 and Article 84 of the 1992 Constitution of the Socialist Republic of Vietnam; This law provides for the protection of the environment.

Chapter GENERAL PROVISONS

Article 1

The environment comprises closely inter-related natural factors and man-made material factors that surround human beings and affect life, production, the existence and development of man and nature.

Environmental protection as stipulated in this law includes activities aimed at preserving a healthy, clean and beautiful environment, improving the environment, ensuring ecological balance, preventing and overcoming adverse impacts of man and nature on the environment, making a rational and economical exploitation and utilization of natural resources.

Article 2

In this law the below-cited terms shall have the following meanings:

1- Components of the environment mean factors that constitute the environment: air, water, soil, sound, light, the earth's interior, mountains, forests, rivers, lakes, sea, living organisms, ecosystems, population areas, production centers, nature reserves, natural landscapes, famed beauty spots, historical vestiges and other physical forms.

2- Wastes mean substances discharged from daily life, production processes or other activities. Wastes may take a solid, gaseous, liquid or other forms.

3- Pollutants mean factors that render the environment noxious.

4- Environmental pollution means alternation in the properties of the environment, violating environmental standards.

5- Environmental degradation means qualitative and quantitative alteration in the components of the environment, adversely affecting man's life and nature.

6- Environmental incidents mean events or mishaps occurring in the process of human activities, or abnormal changes of nature causing serious environmental degradation. Environmental incidents may be caused by:

a) Storms, floods, droughts, earth cracks, earthquakes, landslides, ground subsidence, volcanic eruptions, acid rain, hails, climatic changes and other natural calamities;

b) Fires, forest fires, technical failures at production or business establishments or in economic, scientific, technical, cultural, social, security or defense facilities, causing damage to the environment;

c) Accidents in the prospection, exploration, exploitation or transportation of minerals or oil and gas, pit collapse, oil spouts and spills, pipeline breaks, shipwrecks, accidents at oil refineries and other industrial establishments;

d) Accidents in nuclear reactors, atomic power plants, nuclear fuel producing or re-processing plants or radioactive material storages.

7- Environmental standards mean norms and permissible limits set forth to serve as a basis for the management of the environment.

8- Clean technology means a technological process or technical solution either causing no environmental pollution or generating pollutants at the lowest level.

9- Ecosystem means a system of groups of living organisms existing and developing together in a given environment, interacting with one another and with that environment.

10- Biodiversity means the abundance in gene pools, species and varieties of living organisms and ecosystems in nature.

11- Environmental impact assessment (E.I.A) means the process of analyzing, evaluating and forecasting the effects on the environment by socio-economic development projects and plans, by production and business establishments, and economic, scientific, technical, medical, cultural, social, security, defense or other facilities, and proposing appropriate solutions to protect the environment.

Article 3

The State shall exercise unified management of environmental protection throughout the country, draw up plans for environmental protection, build up capabilities for environmental protection activities at the central and local levels.

The State shall adopt investment policies to encourage organizations and individuals at home and abroad to invest under different forms in, and apply scientific and technological advances to, environmental protection, and protect their lawful interests therein.

Article 4

The State shall be responsible for organizing the implementation of education, training, scientific and technological research activities and the dissemination of scientific and legal knowledge on environmental protection. Organizations and individuals shall be liable for participating in the activities mentioned in this Article.

Article 5

The State shall protect national interests with regard to natural resources and the environment.

The State of Vietnam shall broaden cooperative relations with other countries in the world, with foreign organizations and individuals in the field of environmental protection.

Article 6

Environmental protection is the common cause of the entire population.

All organizations and individuals shall have the responsibility to protect the environment, observe the environmental protection legislation, have the right and obligation to detect and denounce any act in breach of the environmental protection legislation.

All foreign organizations and individuals operating on Vietnamese territory shall abide by Vietnam's environmental protection legislation.

Article 7

Organizations and individuals making use of components of the environment for production or business purposes shall, if necessary, contribute financially to environmental protection.

The Government shall regulate the circumstances, levels and modalities for the financial contribution mentioned in this Article.

Any organization or individual whose activities cause damage to the environment shall make compensation therefore according to regulations by the law.

Article 8

The National Assembly, the People's Councils, the Vietnam Fatherland Front and its member organizations, within the scope of their tasks and powers, shall be responsible for the control and supervision of the implementation of the environmental protection legislation.

The Government and the People's Committees at all levels shall be responsible for organizing the implementation of the environmental protection legislation.

Article 9

All acts causing environmental degradation, environmental pollution or environmental incidents, are strictly prohibited

Chapter

PREVENTION AND COMBAT AGAINST ENVIRONMENTAL DEGRADATION ENVIRONENTAL POLLUTION AND ENVIRONMENTAL INCIDENTS

Article 10

The State offices, within the scope of their functions and tasks, shall be responsible for organizing the investigation, study and evaluation of the existing conditions of the environment, periodically reporting to the National Assembly on the current status of the environment; for identifying areas of environmental pollution and notifying the public thereof and for drawing up plans for the prevention and combat against environmental

degradation, environmental pollution and environmental incidents. Organizations and individuals shall have the responsibility to engage in the prevention and combat against environmental degradation, environmental pollution and environmental incidents.

Article 11

The State encourages, and shall create favorable conditions for all organizations and individuals in the rational use and exploitation of components of the environment, the application of advanced technology and clean technology, the exhaustive use of wastes, the economical use of raw materials and the utilization of renewable energy and biological products in scientific research, production and consumption.

Article 12

Organizations and individuals shall have the responsibility to protect all varieties and species of wild plants and animals, maintain biodiversity and protect forests, seas and all ecosystems.

The exploitation of biological resources must observe their prescribed seasonal characteristics and areas, using proper methods and permitted tools and means in order to ensure their restoration in terms of density, varieties and species, thus preventing ecological imbalance.

The exploitation of forests must comply strictly with plans and specific stipulations of the Law on Forest Protection and Development. The State shall adopt plans to involve organizations and individuals in afforestation and greening of wastelands and denuded hills and mountains to quickly expand the forest cover and protect catchment regions of watercourses.

Article 13

The use and exploitation of nature reserves and natural landscapes must be subject to permission by the sectoral management authority concerned and the State management agency for environmental protection and must be registered with the local People's Committees entrusted with the administrative management of these conservation sites.

Article 14

The exploitation of agricultural land, forestland, and land for aquaculture must comply with land use plans, land improvement plans and ensure ecological balance. The use of chemicals, chemical fertilizers, pesticides and other biological products must comply with stipulations by law.

In carrying out production and business activities or construction works, measures must be taken to restrict, prevent and combat soil erosion, land subsidence, landslide, soil salinization or sulfation, uncontrolled desalination, laterization and desertification of land, or its transformation into swamps.

Article 15

Organizations and individuals must protect water sources, water supply and drainage systems, vegetation, sanitation facilities, and observe the regulations on public hygiene in cities, urban areas, countryside, population centers, tourism centers and production areas.

Article 16

In carrying out production, business and other activities, all organizations and individuals must implement measures for environmental sanitation and have appropriate waste treatment equipment to ensure compliance with environmental standards and to prevent and combat environmental degradation, environmental pollution and environmental incidents.

The Government shall stipulate the nomenclature of environmental standards and delegate the authority at different levels for promulgating and supervising the implementation of such standards.

Article 17

Organizations and individuals in charge of the management of economic, scientific, technical, health, cultural, social, security and defense establishments that have begun operation prior to the promulgation of this law must submit an E.I.A. report on their respective establishments for appraisal by the State management agency for environmental protection.

In case of failure to meet environmental standards, the organizations or individuals concerned must take remedial measures within a given period of time as stipulated by the State management agency for environmental protection. Upon expiry of the stipulated time limit, if they still fail to meet the requirements of the State management agency for environmental protection, the latter shall report to the higher State authority at the next level to consider and decide on the suspension of operation or other penalizing measures.

Article 18

Organizations, individuals when constructing, renovating production areas, population centers or economic, scientific, technical, health, cultural, social, security and defense facilities; owners of foreign investment or joint venture projects, and owners of other socio-economic development projects, must submit E.I.A. reports to the State

management agency for environmental protection for appraisal.

The result of the appraisal of E.I.A. reports shall constitute one of the bases for competent authorities to approve the projects or authorize their implementation. The Government shall stipulate in detail the formats for the preparation and appraisal of E.I.A reports and shall issue specific regulations with regard to special security and defense establishments mentioned in Article 17 and in this article.

The National Assembly shall consider and make decision on projects with major environmental impacts. A schedule of such types of projects shall be determined by the Standing Committee of the National Assembly.

Article 19

The importation and exportation of technologies, machinery, equipment, biological or chemical products, toxic substances, radioactive materials, various species of animals, plants, gene sources and microorganisms relating to the protection of the environment must be subject to approval by the sectoral management agency concerned and the State management agency for environmental protection.

The Government shall stipulate a schedule for each domain and each category referred to in this Article.

Article 20

While searching, exploring, exploiting, transporting, processing, storing minerals and mineral products, including underground water, organizations and individuals must apply appropriate technology and implement environmental protection measures to ensure that environmental standards are met.

Article 21

While searching, exploring, exploiting, transporting, processing, storing oil and gas, organizations and individuals must apply appropriate technology, implement environmental protection measures, develop preventive plans against oil leakage, oil spills, oil fires and explosions and dispose necessary facilities to response timely to those incidents.

The use of toxic chemicals in the process of searching, exploration, exploitation, and processing of oil and gas must be guaranteed by technical certificates and be subject to the control and supervision by the State management agency for environmental protection.

Article 22

Organizations, individuals operating means of water, air, road and rail transports must observe environmental standards and be subject to the supervis ion and periodic inspection for compliance with environmental standards by the relevant sectoral management agency and the State management agency for environmental protection. The operation of transport means failing to meet stipulated environmental standards shall not be permitted.

Article 23

Organizations, individuals producing, transporting, trading, using, storing or disposing of toxic substances, inflammable or explosive substances, must comply with regulations on safety for human and other living beings and must avoid causing environmental degradation, pollution or incidents.

The Government shall stipulate a list of toxic, inflammable or explosive substances mentioned in this Article.

Article 24

The siting, design, construction and operation of plants in the nuclear industry, of nuclear reactors, facilities for nuclear research, for the production, transportation, utilization and storage of radioactive materials, for the disposal of radioactive wastes must comply with legal provisions on nuclear safety and radiation safety and with regulations by the State management agency for environmental protection.

Article 25

Organizations, individuals making use of machinery, equipment, materials with harmful electro-magnetic radiation or ionizing radiation must comply with legal provisions on radiation safety and must carry out regular check and environmental impact assessment of their facilities and report periodically to the State management agency for environmental protection.

Article 26

The choice of sites for collecting, dumping and treating refuse or pollutants and their transportation must comply with regulations by the State management agency for environmental protection and by the local authorities concerned.

Waste water, refuse containing toxic substances, pathogenetic agents, inflammable or explosive substances, non-degradable wastes, must be properly treated before discharge. The State management agency for environmental protection shall stipulate a schedule of wastewater and refuse mentioned in this Article and supervise their treatment process before discharge.

Article 27

The burial, lying in state, embalmment, interring, cremation and transport of corpses or remains of the dead must utilize progressive methods and means and comply with provisions of the Law on Protection of Public Health to ensure environmental hygiene.

The Administration at all levels must plan for burial, cremation sites and guide people to gradually abandon backward practices.

Cemeteries, crematoria must be located far away from population areas and sources of water.

Article 28

Organizations, individuals in the course of their activities must not cause noises or vibrations that exceed permissible limits, harming the health of surrounding people and adversely affecting their life.

The People's Committees at all levels shall be responsible for the implementation of noise control measures in areas of hospitals, schools, public offices, and residential quarters.

The Government shall promulgate regulations to restrict, and to proceed towards the strict prohibition of the production and firing of firecrackers.

Article 29

The following activities are strictly prohibited:

1- Burning and destruction of forests, uncontrolled exploitation of minerals leading to environmental damage, destroying ecological balance;

2- Discharge of smoke, dust, noxious gas, bad odors causing harm to the atmosphere; emission of radiation, radioactivity exceeding permissible limits into the surrounding environment;

3- Discharge of grease or oil, toxic chemicals, radioactive substances exceeding permissible limits, wastes, dead animals or plants, harmful and infective bacteria and viruses into water sources;

4- Burial, discharge of toxic substances exceeding permissible limits into the soil;

5- Exploitation, trading in precious or rare species of plants and animals identified in the schedule stipulated by the Government;

6- Importation of technology and equipment not meeting environmental standards; importation, exportation of wastes;

7- Use of methods, means, instruments causing massive destruction in exploiting or harvesting animal and plant resources.

Chapter

REMEDY OF ENVIRONMENTAL DEGRADATION, ENVIRONMENTAL POLLUTION, ENVIRONMENTAL INCIDENTS

Article 30

Organizations, individuals engaged in production, business and other activities that cause environmental degradation, environmental pollution, environmental incidents must implement remedial measures as specified by the local People's Committees and by the State management agency for environmental protection, and shall be liable for damages according to regulations by the law.

Article 31

Organizations, individuals allowing radioactivity, electro-magnetic radiation, ionizing radiation to exceed permissible limits must take immediate measures to control and remedy the consequences, timely report to the relevant sectoral management agency and to the State management agency for environmental protection, as well as to the local People's Committee to resolve the problem.

Article 32

The remedy of an environmental incident includes: eliminating the cause of the incident; rescuing people and property; assisting, stabilizing the life of the people; repairing damaged facilities; restoring production; sanitizing the environment, preventing and combating epidemics; investigating, collecting statistics on damages, monitoring changes to the environment; rehabilitating the environment of the affected area.

Article 33

Persons who detect signs of an environmental incident must immediately notify the local People's Committee, the nearest agency or organization for timely action.

Organizations, individuals at the site of the environmental incident must take appropriate measures to timely remedy it and immediately report to the superior administrative authority, the nearest People's Committee and the State management agency for environmental protection.

Article 34

The chairman of the People's Committee of the locality where the environmental incident occurs is empowered

to order an emergency mobilization of manpower, materials and other means for remedial actions.

If the environmental incident occurs in an area covering several localities, the Chairmen of the respective local People's Committees shall cooperate to take remedial actions.

In case the incident is beyond local remedy capability, the Minister of Science, Technology and Environment in conjunction with the heads of the agencies concerned shall determine the application of remedial measures and report to the Prime Minister.

Article 35

In case the environmental incident is of special severity, the Prime Minister shall determine the application of urgent remedial measures.

When such incident has been brought under control the Prime Minister shall determine the revocation of the application of the urgent remedial measures.

Article 36

The agencies which are empowered to mobilize manpower, materials, and other means to remedy environmental incidents must reimburse the mobilized organizations, individuals for their expenses according to regulations by the law.

Chapter IV STATE MANAGEMENT OF ENVIRONMENTAL PROTECTION

Article 37

The scope of State management of environmental protection includes:

l- Promulgating, and organizing the implementation of, statutory instruments on environmental protection; promulgating systems of environmental standards;

2- Developing, and guiding the implementation of, strategies and policies of environmental protection, plans to prevent, control and remedy environmental degradation, environmental pollution, environmental incidents;

3- Establishing and managing environmental protection facilities, and facilities relating to environmental protection;

4- Organizing, establishing and managing monitoring systems, periodically assessing the current state of the environment, forecasting environmental changes;

5- Appraising E.I.A. reports on projects and on production or business establishments;

6- Issuing, revoking certificates of compliance with environmental standards;

7- Supervising, inspecting, checking the observance of environmental protection legislation; settling disputes, appeals or complaints concerning environmental protection; dealing with breaches of environmental protection legislation;

8- Training personnel in environmental science and management; educating, propagandizing, disseminating knowledge and legislation in environmental protection;

9- Organizing research and development activities and application of scientific and technological advances in the field of environmental protection;

10- Developing international relations in the field of environmental protection.

Article 38

The Government shall, pursuant to its power and responsibility, exercise unified State management of environmental protection throughout the country.

The Ministry of Science, Technology and Environment shall be responsible to the Government for exercising the function of State management of environmental protection.

All ministries, ministry-level agencies and other Government bodies shall, within the scope of their respective functions, powers and responsibilities, cooperate with the Ministry of Science, Technology and Environment in

carrying out environmental protection within their sectors and in establishments under their direct supervision. The People's Committees of provinces and cities directly under the Central Government shall exercise their State management function for environmental protection at the local level.

The Services of Science, Technology and Environment shall be responsible to the People's Committees of provinces and cities directly under the Central Government, for environmental protection in their localities.

Article 39

The system of organization, functions, responsibilities and powers of the State management agency for environmental protection shall be determined by the Government.

Article 40

The State management agency for environmental protection shall carry out its function of specialized inspection on environmental protection and be responsible to coordinate with specialized inspectors of the ministries and sectors concerned in the protection of the environment. The organization, obligations, powers, activities and coordination of specialized inspectors in the protection of the environment shall be determined by the Government.

Article 41

During the inspection process, the Inspection Team or Inspector is empowered to:

1- Require the organizations, individuals concerned to provide documents and reply to questions on matters necessary for inspection;

2- Conduct technical control measures on site;

3- Decide to temporarily suspend, in case of emergency, activities which threaten to cause serious environmental incidents and be responsible for such decision before the law, and at the same time, immediately report the case to the competent State agency for decision or recommend the latter to suspend activities likely to cause environmental incidents;

4- Deal within their competence or recommend the competent State agency to deal with breaches of the law.

Article 42

Organizations, individuals must create favorable conditions for the Inspection Team or the Inspector to carry out their functions and must observe the decisions of the Inspection Team or the Inspector.

Article 43

Organizations, individuals are entitled to appeal to the Head of the agency which decides the inspection against the conclusions and decisions adopted by the Inspection Team or the Inspector with regard to their establishments.

Organizations, individuals have the right to complain, denounce to the State management agency for environmental protection or other competent State agencies about activities in breach of environmental protection legislation.

Agencies receiving complaints, denunciations shall be responsible for their examination and resolution in accordance with regulations by the law.

Article 44

In case there are several organizations, individuals operating within an area where environmental incidents, environmental pollution or environmental degradation occur, the power to determine the responsibility assigned to those organizations, individuals for remedial measures is defined as follows.

1- For environmental incidents, environmental pollution or environmental degradation occurring within a province or a city directly under the Central Government, the responsible parties shall be determined by the specialized environmental protection inspector of that province, city, or proposed and reported by the latter to the Chairman of the People's Committee of that province or city for consideration and decision. If one or more parties disagree with that decision, they shall be entitled to appeal to the Minister of Science, Technology and Environment. The decision of the Minister of Science, Technology and Environment shall prevail.

2- For environmental incidents, environmental pollution or environmental degradation occurring in two or more provinces, or cities directly under the Central Government, the responsible parties shall be determined by the specialized environmental protection inspector of the Ministry of Science, Technology and Environment or proposed and report ed by the latter to the Minister of Science, Technology and Environment for consideration and decision. If one or more parties disagree with the decision of the Minister of Science, Technology and Environment, they shall be entitled to appeal to the Prime Minister for decision.

Chapter V INTERNATIONAL RELATIONS WITH RESPECT TO ENVIRONMENTAL PROTECTION

Article 45

The Government of Vietnam shall implement all international treaties and conventions relating to the environment which it has signed or participated in, honor all international treaties and conventions on environmental protection on the basis of mutual respect for each other's independence, sovereignty, territorial integrity and interests.

Article 46

The Government of Vietnam adopts priority policies towards countries, international organizations, foreign organizations and individuals with respect to environmental manpower training, environmental scientific research, clean technology application, development and implementation of projects for environmental improvement, control of environmental incidents, environmental pollution, environmental degradation, and projects for wastes treatment, in Vietnam.

Article 47

Organizations, individuals and owners of transportation means which, in transit through the Vietnamese territory, carry potential sources of environmental incidents or environmental pollution must apply for permission, declare and

submit to the control and supervision by the State management agency for environmental protection of Vietnam. Any breach of Vietnamese environmental protection legislation shall, depending on the extent of the infringement be dealt with according to Vietnamese law.

Article 48

Any dispute concerning environmental protection on the Vietnamese territory in which one or all parties are foreigners shall be settled according to Vietnamese law, taking into account international laws and practices.

Any dispute between Vietnam and other countries in the field of environmental protection shall be settled on the basis of negotiation, taking into account international laws and practices.

Chapter VI REWARDS AND DEALING WITH BREACHES

Article 49

Organizations, individuals having good records in environmental protection activities, in the early detection and timely report of signs of environmental incidents, in the remedy of environmental incidents, environmental pollution, environmental degradation, in the prevention of acts which damage the environment, shall be rewarded. Those who suffer damage to their property, health or life, while participating in the protection of the environment, in the remedy of environmental incidents, environmental pollution, environmental degradation and in the combat against activities violating environmental protection legislation, shall be compensated according to regulations by the law.

Article 50

Those who commit acts of destruction or cause damage to the environment, who disregard the order of mobilization by the competent State agency upon the occurrence of environmental incidents, who fail to implement regulations on environmental impact assessment, or infringe other legal provisions for environmental protection shall be dealt with administratively or be criminally prosecuted, depending on the nature and extent of the infringement and the consequences.

Article 51

Those who take advantage of their positions and powers to infringe environmental protection legislation, to protect persons infringing the environmental protection legislation, whose lack of responsibility allows environmental incidents or environmental pollution to occur, shall be disciplined or be criminally prosecuted, depending on the nature and extent of the infringement and the consequences.

Article 52

Organizations, individuals that commit acts of violation against the environmental protection legislation, causing damage to the State, to other organizations or individuals, shall, in addition to the penalties specified in Article 50 and 51 of this Law, compensate for the damages and costs of remedying the consequences, according to regulations by the law.

Chapter VII IMPLEMENTATION PROVISIONS

Article 53

Domestic or foreign organizations, individuals that have caused serious damage to the environment prior to the promulgation of this Law, with long-term adverse impacts on the environment and the health of the people shall, depending on the extent of the consequences, be liable for the damages and the rehabilitation of the environment, according to regulations by the Government.

Article 54

This Law shall take effect from the date of its promulgation. All previous stipulations which contradict this Law are revoked.

Article 55

The. Government shall regulate in detail the implementation of this Law.

This Law was passed on 27 December 1993 by the National Assembly of the Socialist Republic of Vietnam, 9th Legislature, at its 4th Session.

CHAIRMAN OF THE NATIONAL ASSEMBLY Signed : Nong Duc Manh

Appendix 2 Government Decree on Providing Guidance for the Implementation of the Law on Environmental Protection (Government Decree No.175/CP)

GOVERNMENT No.175/CP

SOCIALIST REPUBLIC OF VIETNAM Independence - Freedom - Happiness

Hanoi October 18 1994 **GOVERNMENT DECREE** on providing Guidance for the Implementation of the Law on Environmental Protection

THE GOVERNMENT

- Pursuant to the Law on Organization of the Government dated September 30,1992;

- Pursuant to the Law on Environmental Protection dated December 27,1993;

- On the proposal of the Minister of Science, Technology and Environment

DECREES: CHAPTER **General provisions**

Article 1:

This Decree shall make detailed stipulations for the implementation of Law on Environmental Protection passed by the National Assembly of the Socialist Republic of Vietnam on December 27, 1993 and announced by Decision No 29L/CTN dated January 10, 1994 of the President of State.

Article 2:

The Provisions of this Decree are applied to all activities of all Vietnamese organizations, individuals and all foreign organizations and individuals living and working on the territory of the Socialist Republic of Vietnam as prescribed in the Law on Environmental Protection.

Article 3:

Those provisions environmental protection relating to international relations have to be implemented in accordance with provision of Law on Environmental Protection with other relevant provisions of the Vietnamese Law and of the international treaties signed or participated by Vietnam.

In the case the provisions of the international treaties signed or participated by Vietnam are different from those of this decree, the provisions of those international treaties shall be applied.

CHAPTER

Distribution of Responsibility of State Management on Environment Protection; **Responsibility of Organizations and Individuals for Environment Protection**

Article 4:

1. The Ministry of Science, Technology and Environment undertakes the integrated State management on environmental protection on a nation-wide scale and bears responsibility to organize and direct activities of environmental protection within its functions and duties such as:

a) To work out and present to the Government to promulgate in accordance with its authority the legal documents on environmental protection;

b) To work out strategies and policies of environmental protection and present them to the Government for promulgation:

c) To preside over the drafting process, to present documents to the Government for decision and to coordinate in organizing implementation of long-term and yearly plans on preventing, resisting and overcoming environmental deterioration, pollution, incidents and on the projects of environmental protection and projects relating to environmental protection.

d) To organize, construct and manage a general system of experimental observation of the environment;

e) To access the environmental status quo of the whole country and to periodically report to the Government and the National Assembly on its findings;

f) To appraise the reports on assessment on environmental effects of the projects and local units as prescribed in Chapter of this Decree;

g) To conduct research work and provide guidance for the application of scientific and technological advances in the field of environmental protection; to organize the formation and application of a system of environmental standard; to issue, withdraw certificates acknowledging environmental standards to organize training courses for environmental scientists and cadres of environmental management and protection;

h) To provide guidance and to inspect other branches, localities, organizations and individuals in the

implementation of the law on environmental protection; to organize environmental inspection; to handle complaints and charges relating to environmental protection within its scope of authority;

i) To present to the Government all proposals on the participation of international organizations, the signing or participating of international treaties on environmental protection, to carry out activities relating to environmental protection.

2. The Environmental Department bears responsibility for assisting the Minister of Science, Technology and Environment to perform the function of state management of environmental protection on a nation-wide scale. The tasks, powers, and organization of the Environment Department shall be stipulated by the Minister of Science Technology and Environment.

Article 5:

1. The Ministries, Ministerial ranking bodies and offices belonging to the Government, according to their scope of responsibilities and in accordance with the provisions of laws on environmental protection, such as:

a) To draft and propose the Government to issue in accordance with its authority, the legal documents of environmental protection within their scope of responsibilities and in accordance with the provisions of the Law on Environmental Protection;

To work out their own strategies and policies of environmental protection in accordance with the general strategy and policy of environmental protection of the whole country;

b) To direct and inspect the implementation of the provisions of the law, the plans and measures of environmental protection in accordance with the guidance of the Ministry of Science, Technology and Environment within their own branches and the units under their own direct management;

c) To manage their own branches projects relating to environmental protection;

d) To coordinate in appraising the reports on assessment of environmental effects of the projects, the production, business units in accordance with the provisions in Chapter of this Decree;

e) To handle the disputes, claims and charges and to propose measures to deal with violations of environmental protection within the authority prescribed by the law.

2. The Ministries, Ministerial - ranking bodies, offices belonging to the Government coordinate with the Ministry of Science, Technology and Environment to conduct the following activities:

a) To investigate, observe, study and assess the current environmental situation within their own branches;

b) To draft and present proposals to the Government for decision and to organize the implementation of plans on preventing, resisting and overcoming environmental deterioration, pollution and incidents within their own branches;

c) To study and apply the scientific and technological advances in the field of environmental protection within their own branches;

d) To educate, propagandize and spread the knowledge, laws on environmental protection within their own branches.

Article 6:

1. The people's Committees of provinces and cities under Central Government bear responsibilities for the implementation of state management on environmental protection, such as:

a) To issue, in accordance with their authorities, legal documents of environmental protection in their localities;

b) To direct and inspect the implementation of the state and local regulations on environmental protection within their own localities;

c) To appraise the reports on assessment of environmental effects of the projects and local units as prescribed in Chapter of this Decree;

d) To issue and withdraw certificates acknowledging environmental standards of the production, business enterprises;

e) To coordinate with the Central offices in examining, inspecting and dealing with violations of laws on environmental protection in their own localities, to remind other organizations and individuals to realize the provisions of laws on environmental protection;

f) To receive and handle the disputes, complaints, charges and proposal on environmental protection in their own assigned powers or forward to the authoritative offices for settlement.

2. The provincial Department of Science, Technology and Environment are responsible before the People's Committees of the provinces and cities under Central Government for the implementation of state management environmental protection in their localities.

The tasks, powers and machinery organization of the provincial Department of Science, Technology and Environment are stipulated by the People's Committees of the provinces and cities under Central Government in accordance with the guidance of the Ministry of Science, Technology and Environment.

Article 7:

The state offices and mass association of people bear the following responsibilities in environmental protection:

1. To assure strict implementation, within their offices and associations, of all the regulation of the law, of the Central offices and local authorities on environmental protection;

2. To propagandize and educate so as to raise the sense of responsibility of each member of the offices and associations on environmental protection;

3. Within their own scopes of responsibility and powers to inspect, educate or observe the implementation of the laws on environmental protection, to timely discover and report violations of laws on environmental protection to the authoritative offices for settlement.

Article 8:

All production and business organizations have to strictly comply with the provisions of laws on:

1. Assessing environmental impact; assuring the correct implementation of environmental standards; preventing, resisting and overcoming environmental deterioration, pollution and incidents;

2. Contributing finance to the cause of environmental protection and compensating for damages resulting from detrimental acts to the environment, as prescribed by the law;

3. Providing complete documents and creating favorable conditions for inspecting delegations or inspectors while they are conducting their missions; complying with the decisions of the inspecting delegations or inspectors;

4. Conducting propaganda and educational operations to raise the conscience of cadres and workers in environmental protection; periodically reporting to the offices in charge of state management of environmental protection in their localities on the current situation of environment in their operating areas.

CHAPTER

Assessment of environmental impact

Article 9:

The investors, project managers or directors of the offices and enterprises... belonging to the following areas have to conduct assessment of environmental impact:

1. The overall strategies for regional development, strategies and plans for development of provinces and cities under Central Government, strategies for urban and population development;

2. The economic, scientific, healthcare, cultural, social, security and defense projects;

3. Projects being carried out on the territory of Vietnam with the funds invested, assisted, granted or contributed by foreign organizations or individuals or international organizations;

4. The projects mentioned in items 1, 2 and 3 of this Article being approved before January 10, 1994 but not yet assessed environmental impact as required;

5. The economic, scientific, healthcare, cultural, security and defense units that have been operating before January 10, 1994.

Article 10:

1. The scope for assessing environmental impact includes:

a) To assess the current situation of the environment in the operating area of the project or unit;

b) To assess impact occurring to the environment as a result of the activities of the project or unit;

c) To present measures for environmental resolution.

2. All the contents mentioned in this Article are presented in a form of a separate report called Report of Assessment on Environmental Impact.

Article 11:

1. For the objects mentioned in items 1, 2, 3 and 4 of Article 9, the formation of reports of assessment on environmental impacts shall be conducted in two stages: Preliminary and Detailed (the objects exclusively mentioned in item 4 have to make detailed assessment only).

The contents of the report of preliminary assessment on environmental impact are stipulated in Appendix .1.

The contents of the report of detailed assessment on environmental impact are stipulated in Appendix 2.

2. For the objects mentioned in item 5 of Article 9, the contents of a report of assessment on environmental impact are stipulated in Appendix .3.

Article 12:

1. The methods used to assess environmental impact must be, by their nature, objective, scientific, practical and in accordance with the current international standards.

2. Reports of assessment on environmental impact must be made by offices and organizations with adequate professional expertise and facilities.

3. All organizations and units have to use Vietnamese environmental standards to prepare reports of assessment on environmental impact. Those fields whose environmental standards have not been set up, have to get agreement, in the form of documentation, from the offices in charge of state management on environmental protection.

Article 13:

A dossier for appraising a report of assessment on environmental impact includes:

1. For those objects mentioned in items 1, 2, 3, and 4 of Article 9:

a) A report of assessment on environmental impact;

b) Dossier of the project and related appendixes.

2. For those objects mentioned in items 5 of Article 9:

a) A report of assessment on environmental impact;

b) A report on the current situation of production and business operations and other relevant issues of the unit.

3. All documents in a dossier for appraisal are made in 3 copies. For the objects mentioned in item 3 of Article 9, the documents should be made in Vietnamese.

Article 14:

1. The work of appraising report of assessment on environmental impact by ongoing projects and operating units is separated into two levels:

a) The Ministry of Science, Technology and Environment shall appraise the Central level. In certain cases, the Ministry of Science, Technology and Environment can empower a specialized branch to conduct the appraisal;

b) The local level shall be appraised by the provincial Departments of Science, Technology and Environment. The division of appraising power is recorded in Appendix .

2. The Ministry of Science, Technology and Environment is responsible for presenting the Government a list of projects whose reports of assessment on environmental impacts should be introduced to the National Assembly for consideration.

Article 15:

1. The offices assigned with State management of environmental protection are responsible for appraising reports of assessment on environmental impact.

2. In case of necessity, an Appraising Council shall be set up.

a) The Ministry of Science, Technology and Environment shall decide the establishment of an Appraising Council at the Central level.

b) The chairmen of the People's Committees of the provinces and cities under Central Government will decide the establishment of Appraising Councils at the provincial level.

3. The composition of an Appraising Council includes scientist, managing officials, possibly the representatives of social organizations and ordinary people. The number of Council members cannot exceed 9.

Article 16:

The period of time for appraising a report of assessment on environmental impact cannot be longer than 2 months from the date all related documents are received.

For the objects mentioned in item 3 of Article 9 the period of time for appraisal must be in harmony with the period of time prescribed for issuing investment licenses.

Article 17:

Offices assigned with state management of environmental protection are responsible for the supervision of artistic design and conducting measures to protect the environment according to the suggestions of the Appraising Council.

Article 18:

In case they do not agree with the conclusions of the Appraising Council, the investors, project managers of directors of the enterprises, units etc. have a right to make complaints to the office which decided the establishment of the Appraising Council and to the upper-leveled office assigned with state management of environmental protection.

The complaints have to be considered and resolved in a maximum period of 3 months since the date the complaints are received.

Article 19:

For those objects mentioned in Article 9 of this Decree being controlled by the Ministries of Defense and Interior, the Ministers of Defense and Interior shall conduct the making and appraising reports of assessment on environmental impacts in accordance with the guidance of the Ministry of Science, Technology and Environment.

Article 20:

1. For the objects mention in item 5 Article 9 of this Decree, the making and appraising reports of assessment on environmental impact must be conducted step by step and within a fixed time according to the guidance of the Ministry of Science, Technology and Environment.

2. The results of the appraisals over reports of assessment on environmental impact of the operating enterprises

and units are classified into the 4 following categories for settlement:

- a) Being permitted to continue its operations without environmental penalty;
- b) Having to invest in building facilities to deal with the wasted materials;
- c) Having to change the technology, to move to other place;
- d) Having to suspend its operations.

CHAPTER Preventing, Resisting and Overcoming Environmental Deterioration, Pollution and Incidents

Article 21:

The utilization and exploitation of national gardens, natural preservation areas, areas of historical and cultural values relics, natural scenery etc... must be permitted by the management body of the concerned branch. Before issuing licenses, the management body of concerned branch has to obtain agreement (in writing) from the state management office for environmental protection.

After receiving documents permitting utilization and exploitation, the organizations or individuals whose names are recorded in the licenses, have to conduct registration procedures with the local authorities who directly control the above-mentioned preservation areas.

In a license, the following contents must be clearly recorded: The object and scope being granted for utilization, the purpose and duration of exploitation, the precautions and measures for environmental protection during exploitation.

Article 22:

Those organizations and individuals conducting operations relating to the environment have to comply with environmental standards.

The kinds of Vietnamese environmental standards includes:

- 1. Environmental standards for land protection;
- 2. Environmental standards for water protection;
- 3. Environmental standards for air protection;
- 4. Environmental standards to regulate noise pollution;
- 5. Environmental standards in the field of radiation and ionization;
- 6. Environmental standards for environmental protection in residential areas;
- 7. Environmental standards for environmental protection in production areas;
- 8. The standards for environmental assessment in the field of forestry protection;
- 9. The standards for environmental assessment in the field of protection of biological systems;
- 10. The standards for environmental assessment in the field of protection of ecological systems;
- 11. Environmental standards for protection of the sea and oceans;
- 12. Environmental standards for the protection of natural preservation areas and natural landscapes;
- 13. Environmental standards in the field of planning for industrial, urban and civil constructions;
- 14. Environmental standards concerning the transportation, storage and utilization of toxic and radioactive materials;
 - 15. Environmental standards in the exploitation of surface and underground mines;
 - 16. Environmental standards for motorized transportation;
 - 17. Environmental standards for establishments using microorganisms;
 - 18. Environmental standards for environmental protection of tourist areas;
 - 19. Environmental standards in the field of export and import;
 - 20. Environmental standards for hospitals and special illness treatment areas.

The Ministry of Science, Technology and Environment shall coordinate with the related ministries and branches in preparing and issuing standards on the above list.

Article 23:

All organizations and individuals when exporting or importing species of animals, vegetation (including seeds), microorganisms and gene sources must have permission from the management body of the concerned branch and the office for state management of environmental protection and must also obtain certificates of epidemic tests from an authoritative office for epidemic control in Vietnam. When these organizations and individuals discover that the objects defined in the licenses are likely to pose a danger by causing epidemic diseases to human being, cattle, poultry or by causing environmental pollution or deterioration, they have to urgently report to the nearest local authority and office for State management of environmental protection to enable immediate measures to deal with the problem by confinement or elimination, to be taken.

For precious and rare animals, and vegetation as defined in "Convention on International Trade of Endangered Species" (CITES) all organizations and individuals have to strictly comply with Law on Forestry Protection and Development and the Ordinance on Protection of Aquatic Resources. The list of sorts and species of those objects mentioned in this article are released by the Ministry of Forestry (Appendix), the Ministry of Fisheries, the

Ministry of Agriculture and Foodstuff Industry.

Article 24:

Any organizations and individuals wishing to export or import toxic chemicals and biological products have to obtain permission from the management body of the concerned industries and the State management body for environmental protection and also must strictly comply with current Vietnamese standard.

In applications, the exact purpose of the utilization, quantity, special technical characteristics, composition, formula (if available), commercial name, name of the company with produced it and the name of the country where it was proceeded must be made clear. These organizations and individuals have to export or import the exact types and amounts as defined in the licenses.

In case the above - mentioned materials and products' usefulness has expired, thus requiring disposal, their owners must reveal the amounts of waste, special technical characteristics and the disposal technology clearly, and the disposal process must be supervised by the body for state management of environmental protection and the empowered office of public security.

With chemicals of vegetation protection, they have to strictly comply with the Ordinance on Vegetation Protection and Epidemic Control.

Article 25:

The imports of complete equipment and technology as required by projects and joint ventures can only be conducted after economic technical justifications have been approved together with the appraisal conclusion on reports of assessment on environmental impacts of the projects made by the body for state management on environmental protection.

For the important separate equipment of environmental protection, when considering them necessary, the body for the state management on environmental protection shall consider and grant permission for importing.

The distribution of power to deferent levels to grant licenses for this kind of operation shall be as follows:

- The Ministry of Science, Technology and Environment shall issue import licenses to those projects and joint ventures approved by the State Council of Appraisal.

- The provincial Department of Science, Technology and Environment shall issue licenses for the remaining cases in accordance with the guidance of the Ministry of Science, Technology and Environment.

Article 26:

1. All transportation means operating on land, railway and water surface are not allowed to emit smoke, dust, oil, and gas containing toxins surpassing the defined standards in to the surrounding environment (Appendix). For the above-mentioned transportation means, if they are imported into Vietnam after the Law on Environmental Protection came into effects, they have to meet the requirements of waste standards before being operated.

2. For all engine-transportation means, when their owners operate them, they have to ensure that the noise level does not surpass the stipulated levels (Appendixes V1, V2, V3 and V4).

3. For the transportation means being granted permission to operate before the effective date of the Law on Environmental Protection, their owners have to apply technical alterations to minimize the amounts of smoke and toxic waste emitted into the environment. From April 1, 1995 all motorized transportation means operating in urban areas have to guarantee that the smoke levels emitted does not exceed 60 Hartridge units, they are not allowed to emit the above-mentioned substances causing environmental pollution, nor cause noise surpassing the permitted levels.

Any means of transportation failing to reach the above-mentioned standards shall be suspended from operation.

4. The owners of engine-transportation means if passing hospitals, sanatoria, schools and densely populated residential areas at rest time (noon) and after 22.00 hours are not allowed to use horns.

The Ministry of Transportation and Communications is responsible for organizing the examination and issue of licenses for transportation means, acknowledging their satisfaction of environmental standards.

Article 27:

1. All production and business establishments, hospitals, hotels, restaurants etc. ... having the discharged substances in forms of solid, liquid and gas have to organize the treatment so as to reach environmental standards before discharging out of the management scope of their establishments; the technologies for treatment of the abovementioned discharged substances have to be approved by the authoritative body of state management.

2. Everyday, discharged substances in urban and industrial areas have to be collected, transported and treated in accordance with regulations on management of discharged substances.

3. Discharged substances containing micro-organisms and disease-causing viruses have to be carefully treated before being discharged into public dumping grounds in accordance with current regulations.

4. Discharged substances containing toxic chemicals which are hard to dissolve have to be treated by a separate technology instead of being discharged into the areas for daily life discharged substances.

Article 28:

1. The import and export of discharged substances containing toxic elements or pathogenic microbes possibly causing environmental pollution are prohibited.

2. The Ministry of Science, Technology and Environment shall provide guidance for all branches and localities to make the lists of secondary and wasted materials which satisfy the standards of environmental hygiene and therefore are allowed to import as production materials so as to present them to Prime Minister of the Government for decision.

Article 29:

From January 1st 1995, the production, transportation, trading, storage and use of all kinds of crackers are prohibited on the whole territory of Vietnam.

The Government shall make stipulations about production and use of fireworks on some special holidays and festivals.

Article 30:

1. The Ministry of Science, Technology and Environment shall submit to the Prime Minister of the Government the specially serious cases of environmental incidents and propose the urgent measures of treatment for the Prime Minister to decide.

2. The specially serious cases of environmental incidents are those causing immense and serious damages to:

- a) Lives and properties of several people.
- b) Economic, social, security and national defense establishments.
- c) Widespread area of many provinces' and cities' territory.
- d) Area of international influence.

3. The Ministers of National Defense and the Interior will organize aspecialized force to act as a key instrument in coping with environmental problems.

The Ministry of Science, Technology and Environment working together with the Ministries of National Defense and Interior and related ministries and branches will work out the plan to form this force and submit the plan to the Prime Minister of the Government for his / her decision.

Article 31:

The payment of costs in overcoming environmental incidents for organizations and individuals that are mobilized shall be conducted on the principle of agreement between the mobilized organizations, individuals and with the authority to mobilize.

The Ministry of Finance shall make detailed stipulations for this kind of payment.

CHAPTER V

The Financial Sources for the Task Environment Protection

Article 32:

The financial sources for the task of environment protection include:

1. The State budget allocation for activities of environmental protection, for the tasks of scientific research and state management on environmental protection;

2. Fees of appraisals over assessment reports on the environmental impacts of socio-economic projects; fees of environmental protection contributed in accordance with the detailed stipulations of the Ministry of Finance by organizations and individuals who utilize environmental components for the purposes of production and business.

3. Other sources (such as fines charged on administrative violations, funds contributed by any socio-economic organizations).

Article 33:

The Government shall establish a National Reserve Fund for dealing with environmental deterioration, pollution and incidents. This Fund will be used to cope with emergency cases of environmental incidents, pollution and deterioration.

The financial sources for the above-mentioned Fund includes money extracted from the State Budgets, contributions from different enterprises (including joint-ventures with foreigners), contributions by organizations and individuals in and outside of Vietnam, to activities of environmental protection in Vietnam.

The Ministry of Science, Technology and Environment and the Ministry of Finance will work out management regulations and use of this Fund.

Article 34:

All organizations and individuals who conduct production and business operations in the following fields or with the following objects have to pay fees for environmental protection:

- Exploiting oil, gas or other mineral resources;
- Airports, seaports, bus stations, railway stations;
- Motorized transportation;

- Other fields of production and business causing environmental pollution.

Foreign organizations and individuals conducting production and business operations which cause

environmental pollution have to pay environmental protection fees.

The fee level depends on the harmful level possibly caused to the environment by production and business operations.

The Ministry of Science, Technology and Environment and the Ministry of Finance shall provide detailed guidance on collection and use of environmental protection fees.

Article 35:

The financial sources for the task of environmental protection shall be spent annually on the following activities:

1. Basic surveys on environmental elements, especially of land, water, air, forest, sea and related cultural sites... 2. Surveys on situations of environmental pollution in big provinces and cities, industrial areas, condense residential areas, water areas of ongoing oil exploitations...

3. Measures of environmental protection, restoration and improvement and of management of discharged substances (especially toxic ones) in cities and industrial areas;

4. Projects of preservation and restoration of ecological systems having important meaning to the sustainable socio-economic development and biological diversification (including national gardens, protected natural reserves, the ecological systems of submerged land in river estuaries and coast lines, the ecological systems of salt marsh forests, submerged coral reefs, rate and precious species of creatures, protection of gene resources...)

5. Basic construction of necessary facilities for environmental protection.

Article 36:

The Ministry of Science, Technology and Environment and the Ministry of Finance shall make stipulations on the collection, payment and management of finance and properties in operations of environmental protection in accordance with the existing regime of management.

CHAPTER

Inspection of Environmental Protection

Article 37:

The Ministry of Science, Technology and Environment bears responsibility before the Government to organize and conduct the implementation of professional inspection on environment protection, with the following duties:

1. To inspect the activities of environmental protection of all ministries and branches and the performance of state management in environmental protection of the People's Committees of different levels in their localities.

2. To inspect the compliance with provisions of the laws on environmental protection: Standards, regulations on preventing, resisting and overcoming environmental deterioration, pollution and incidents when utilizing and exploiting environmental components by organizations and individuals.

Article 38:

The organization, power and scope of activities of professional inspection on environmental protection will be unanimously stipulated by the Minister of Science, Technology and Environment and the State's General Inspector in accordance with provisions of the Law on Environmental Protection and the Ordinance on Inspection.

CHAPTER Provisions for Implementation

Article 39:

This Decree shall come into effect from the signing date. All previously issued regulations which are contrary to this Decree shall be hereby repeated.

Article 40:

All Ministries, Heads of Ministerial naking bodies, Heads of Offices belonging to the Government; Chair people of People's Committees of provinces and cities under Central authorities are responsible for providing detailed guidance, according to their functions and powers, for the implementation of this Decree.

On behalf of Government The prime Minister Signed VO VAN KIET

Appendix .1 THE CONTENTS OF THE REPORT FOR THE PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

. INTRODUCTION

1. Objective of the Report

2. Document, Data Base of the report

3. Brief project description

. DATA OF THE ENVIRONMENTAL SITUATION

Qualitative, quantitative assessment, in the case where there is no quantitative data then classing according to degree: Heavy, medium, light, unknown by each natural factor (water, soil, air...)

. ENVIRONMENTAL IMPACT ASSESSMENT DURING PROJECT IMPLEMENTATION

General assessment according to the main factors:

1. Air

2. Water

3. Noise

4. Soil

5. Ecosystem

6. Solid waste

7. Historical landscape

8. Infrastructure

9. Transportation

10. Community Health's

11. Other factors.

. CONCLUSIONS AND RECOMMENDATIONS

1. Conclusion on the Environmental Impact of the project.

2. Recommendation to the problems that need to have detail assessment.

Appendix .2 THE CONTENT FOR DETAILED ENVEIRONMENT; IMPACT ASSESSMENT REPORT

. INTRODUCTION

1. Objective of the Report

2. Document, Data Status of the Report

3. Selection of the Assessment Method

4. Organization, members, method and the process used in preparing report

. BRIEF DESCRIPTION OF THE REPORT

1. Name of the project

2. Name of the Holder, the agency implements the setting up feasibility study or documents equivalent to the project value.

3. Socio-economic objective, the political significant of the project.

4. The main contents of the project. The socio-economic benefit that project can provide.

5. Project progress, plan for project exploitation.

6. Project cost, cost process.

. ENVIRONMENTAL STATUS AT THE PROJECT LOCATION

1. General description of the geographical, socio-economic conditions related to the project location.

2. Forecast of the conditions if the project is not implemented.

. IMPACT OF THE PROJECT IMPLEMENTATION TO THE ENVIRONMENTAL AND NATURAL RESOURCES FACTORS

1. Description of the Impact to the project implementation to each Environmental factor at the project locations. Presenting the characteristics, degrees, and occurrences at each time of the impact. Compare to the circumstance of not implementing project.

A. Impact of the physical environmental forms water quality, air quality

B. Impact to the Biological resources and ecosystems

- 1. Aquatic ecosystem
- 2. Terrestrial ecosystem

C. Impact to the Natural Resource and Environment

1. Water supply

2. Transportation

- 3. Agriculture
- 4. Irrigation
- 5. Energy
- 6. Exploration
- 7. Industry
- 8. Small Industry
- 9. Land use to other objections
- 10. Creation, Health protection

D. Impact to the direct condition that impact to the people living quality

- 1. Socio-economic condition
- 2. Cultural condition
- 3. Aesthetic

2. General environmental assessment in the case of the project implementation.

Analysis of the synthetic Environmental development for each alternative for project implementation. The damages to natural resources and environment resulting from each alternative. The measures overcoming.

In this part, it needs to avail.

- The material inputs to production

- The waste of the production
- The products
- Impact forecast of these materials to environment

3. The mitigating measles to limit negates impact of the project on the environment.

Presenting in s detailed manner the technical measures, technology, management for overcoming the negative impact on the environment of the project.

Comparing the resulting benefits and the costs for each alternative of the project.

4. General assessment.

General assessment of the degree of condenses of the forecast of the environmental impact assessment. The study, investigation, survey that would be required for more confident conclusion and further adjust of the forecast of the environmental impact assessment in the future.

. RECOMMENDATIONS ON THE ALTERNATIVE FOR PROJECT IMPLEMENTATION

1. Recommendation for alternative selection to implement the project base on the environmental point of view.

2. Recommendation for the Environmental protection measures associated with the approved alternative.

Appendix .3

THE CONTENT OF THE ENVIRONMENTAL

IMPACT ASSESSMENT REPORT TO THE OPERATING UNITS

. INTRODUCTION

- 1. Objective of the Report
- 2. Document data of the report

3. Brief summary of the operation, capacity, material, product, insurance and worker's salary.

. BRIEF ON THE OPERATING UNIT, TECHNOLOGY AND EFFICIENCY OF THE UNIT ETC.

. BRIEF DESCRIPTION OF THE ENVIRONMENTAL STATUS AT THE LOCATION

- Biological factors: inland and water ecosystems
- In-Physical factors: water, soil, air...
- Infrastructure: water supply and drainage transportation, Irrigation
- Socio-economic conditions and community health

. IMPACT ASSESSMENT TO THE UNIT'S ENVIRONMENT

- Criteria for assessment

- 1. Air
- 2. Water
- 3. Noise
- 4. Soil
- 5. Ecosystem

6. Waste

- 7. Landscape, Historical relies
- 8. Infrastructure
- 9. Transportation
- 10. Community health
- 11. Others

For each of the above criteria, it needs to determine in qualitative quantitative manner (compared with the

standard in the case there isn't the quantitative data then classify according to the degrees: Heavy, medium, light, unknown etc...

General assessment of the environmental damages: The gain and loss of the socio-economy. **. ENVIRONMENTAL SETTLEMENT ALTERNATIVE**

Dictate the technological alternative and processed technology, cost requirement and the implementation. **. CONCLUSION AND RECOMMENDATION**

- Main conclusions

- Recommendation on the alternatives and measures for reducing the impact caused to the operating unit.

Appendix
APPRAISAL DECENTRALIZATION OF EIA - REPORT

	Operating projects and enterprises	MOSTE	DOSTE
1	Mining	Big and medium mine	Small
2	Oil exploring and refinery, oil chemicals and gas	All	
3	Chemical plant	All	
4	Steel plant	All	
5	Non-ferrous metal plant	All	
6	Leather plant	Over 1000 T/year	Rest
7	Textile plant	Over 30 mil m/year	Rest
8	Plant protection chemical plant	All	
9	Rubber and paint plant	All	
10	Plastic plant	Over 1000 T/year	Rest
11	Radiation plant	All	
12	Airport	All	
13	Export processing zone	All	
14	Hydropower dam, water reservoir	Over 100 mil m ³ /year	Rest
15	Irrigation system	Above limitation	
16	Thermal and other kinds of power plants	Over 30 MW	Rest
17	Cement plant	Over 500,000 T/year	Rest
18	Paper and paper pulp mill	Over 40,000 T/year	Rest
19	Pharmaceutical plant	Cities under Central Government	Rest
20	Fertilizer plant	Over 100,000 T/year	Rest
21	Food processing factory	Over 1,000 T/year	Rest
22	Sugar plant	Over 100,000 T/year	Rest
23	Hospital	Over 500 beds	Rest
24	Railway, Motorway of grades 1, 2, 3	Over 50 kms	Rest
25	Power transmission station	Over 110 kV	Rest
26	Tourism and entertainment resort	Over 100 ha	Rest
27	Oil and gasoline store	Over $3,000 \text{ m}^3$	Rest
28	Poisonous chemicals store	All	
29	Plantation	Over 2,000 ha	Rest
30	Wood exploiting farm	Over 3,000 ha	Rest
31	Industrial forestation farm	Over 2,000 ha	Rest
32	Aquacultural farm	Over 200 ha	Rest
33	Port	Over 100,000T/year	Rest
34	Ply-wood factory	Over 500,000 m ² /year	Rest
35	Migration area	Over 500 households	Rest
36	Alluvial plain	Over 500 ha	Rest
37	Engineering factory	Over 50,000 T/year	Rest
38	Telecommunication stations	Rader station and central broadcasting station	Rest
39	Freezing plant	Large and medium scale	Small
40	Construction materials factory	Large and medium scale	Small
41	Hotel and business sector	Large and medium scale	Small

Appendix (omitted) LIST OF PRECIOUS FOREST PLANTS AND ANIMALS

Appendix IV (omitted) EMISSION STANDARD FOR ALL VEHICLES EMISSION STANDARD FOR NEW VEHICLE

Appendix .1 (omitted) PERMITTED VIBRATION

Appendix .2 (omitted) VIBRATION IN EACH OCTA

Appendix .3 (omitted) NOISE STANDARD FOR VEHICLE

Appendix .4 NOISE STANDARD IN AREAS (UNIT DBA)

Areas	6 a.m. to 6 p.m.	6 p.m. to 10 p.m.	10 p.m. to 6 a.m.
Category	55	50	45
Category	65	60	50
Category	70	65	55
Category	75	70	60
Category	80	75	65

Note :

Category : Areas that need quietness such as hospitals, kindergartens, schools, libraries, research institutes.

Category : Residential areas, hotels, offices.

Category : Business areas, surrounding areas 15 meters from the main traffic roads, markets, stations and bus stop.

Category : Handicraft and light industry manufacturing area.

Category : Heavy industry manufacturing area case noise (background noise) in the area when the vehicle does not operate, higher than the standard mentioned in the table above, the vehicle should not make the noise increase more than 5DBA from the original noise level.

Appendix 3 Regulation on Hazardous Waste Management (Decision No.155/1999/QD-TTg)

REGULATION ON HAZARDOUS WASTE MANAGEMENT

(Promulgated by Decision No. 155/1999/QD-TTg dated 16 July 1999 by the Prime Minister.)

CHAPTER 1 GENERAL PROVISIONS

Article 1

This Regulation stipulates the management of Hazardous Wastes (hereafter written as HW) to prevent and minimize their harmful impacts to the environment and human health.

Article 2

This Regulation is applied to the individuals, organizations operating within Vietnamese territory relating to generation, collection, transportation, transit, storage, treatment or disposal of HW.

This Regulation also is applied to foreign individuals, organizations operating within the Vietnamese territory relating to generation, collection, transportation, storage, treating and disposal of HW, unless otherwise stipulated by International Treaties to which the State of Socialist Republic of Vietnam is a Contracting Party.

Article 3

In this Regulation the terminology used is understood as follows:

- 1. Waste: as defined under Item 2, Article 2 of the 1993 Law on Environmental Protection.
- 2. <u>Hazardous Waste</u> is waste, which contains substances or compounds having one of the direct hazardous characteristics (flammable, explosive, poisonous, corrosive, infectious or other hazardous characteristics) or causes hazards to the environment and human health when contacting other substances. The HW List is defined in Annex 1 of this Regulation. HW List is to be stipulated by the Agency in charge of State Management of Environmental Protection at the central level.
- 3. <u>Hazardous Waste Management</u> is the activity aimed at controlling HW in all processes from their generation to collection, transportation, transit, storage, treatment, and disposal of them.
- 4. <u>Agency in charge of State Management of Environment Protection (hereafter written as SMEP) means</u>: at central level is the Ministry of Science, Technology and Environment; at local level is the People's Committee of the provinces and cities directly under Central Government.
- 5. <u>HW Generator</u> is the individual or the organization that owns or operates the facility generating HW.
- 6. <u>*HW Collector and Transporter*</u> are individuals or organizations that is licensed to implement collection and transportation of the HW.
- 7. HW Storage Owner is the individual or organization that is licensed to store HW.
- 8. HW Disposer is the individual or organization that is licensed to implement treatment and disposal of HW.
- 9. <u>Collection of HW</u> includes collection, classification, packaging and temporary storage at legally accepted sites.
- 10. <u>Storage of HW</u> is the action of keeping HW for a certain period of time, and under necessary conditions to ensure that there is no leakage or release to the environment until the HW to be transported to the legally accepted sites for treatment or disposal.
- 11.<u>*Transportation of HW*</u> is the process of transporting the HW from the generation source to the storage, treatment and disposal sites.
- 12.<u>HW treatment</u> is the process using technologies or technical methods (including the collection, recycling, re-use, incineration of waste) aimed to change the characteristics and the composition of the HW in order to eliminating or minimizing hazards to the environment and human health.
- 13. <u>Diposal of HW</u> is the process using the technology to isolate (includes landfilling) HW, eliminating possibilities of causing hazards to the environment and human health.
- 14.<u>Registration documentation</u> referred to issued by the Agency in charge of State Management of Environment Protection to the HW producer, collector and transporter.
- 15. <u>License to store, treat and disposal of HW</u> (here after referred to as license) is the document issued by the Agency in charge of State Management of Environment Protection providing the details of requirements, responsibilities and conditions to carry out that activity.
- 16.<u>Accepted site or factories</u> are the place, where the HW can be stored and, treated and disposed of, approved by the Agency in charge of State Management of Environment Protection.
- 17.<u>*HW manifest document*</u> is the document that accompanies the HW from the generation source, during transport to the site where it is stored, treated or disposed off.

Article 4

HW produced from activities relating to the oil, gas, medical, activities using radioactive substances, flammable, or explosive substances, must comply with the provision of this regulation and also comply specific regulations about these activities.

Article 5

Disputes among parties where one party is a foreign individual or organization in understanding and applying this regulation is settled according to Vietnamese Law. In the event that, the international Treaties that Vietnam participates or signs provide other stipulations different from this regulation the provision of the treaty will apply.

Article 6

- 1. HW generator must register their activities with the Agency in charge of State Management of Environment Protection to obtain a registration number.
- 2. HW collector, transporter, storage owner and disposer must apply for a license to operate. Operating sites, facilities, mean for collection, storage, treatment and disposal of HW regulated by the Agency in charge of State Management of Environment Protection.

Article 7

HW generator, collector, storage owner and disposer must periodically report on HWM (Attached Annex 4) to the Agency in charge of State Management of Environment Protection, keeping files and diary of HWM at the site (Attached Annex 5), and to be inspected by the Agency in charge of State Management of Environment Protection.

Article 8

Procedures for granting of HWM registration document, license to store, treat and dispose HW are as follows:

- 1. HW generator must apply for the registration number for HWM at the Agency in charge of State Management of Environment Protection either at central or local level (Attached Annex 2A).
- 2. Within 45 days from the date of receiving the complete and legal application form, the Agency in charge of State Management of Environment Protection must process the document and issue the HWM registration number. In the event of refusal, the agency must reply to the applicant by writing and clearly note the reason why.
- 3. The collector, transporter, storage owner, disposer of HW must apply for license at the Agency in charge of State Management of Environment Protection at central or local level (Attached Annex 2B).
- 4. Within 45 days from the date of receiving the completed license application form, the Agency in charge of State Management of Environment Protection will process the document and issue the license. In the event of refusal, the agency must inform the applicant by writing and clearly note the reason why.

Chapter 2 Management of Hazardous Waste Generation

Article 9

The responsibilities of the HW generator at the facility or at the site are:

- 1. To minimize and classify the HW from source.
- 2. Package the HW according to its type with suitable packaging that meets safety and technical requirements, clearly labeled according to Competent State authorities requirements.
- 3. Safely store the HW on site before handing it over to the collector, transporter, storage owner, and disposer of HW, ensure that:
 - a) The storage area is fenced, labeled and meets the requirements of the Agency in charge of State Management of Environment Protection for HWM.
 - b) Separate from non-hazardous wastes (both liquid or solid), and separate from other HW.
 - c) Effective plan for prevention of any problems and ensure safe storage in an area.

Article 10

The HW generator must comply with the followings:

- 1. Sign the contract with the collector, transporter, and disposer when being incompetent to undertake those activities at site.
- 2. Only hand over HW to licensed collector, storage owner, transporter and disposer.
- 3. Complete and sign the first part of the manifest document (Attached Annex 3). The HW manifest document includes 5 copies. The HW producer keeps 1 copy, the rest are passed to the collector and transporter.
- 4. Check to ensure the HW was collected and transported to the assigned place as stated in the contract.
- 5. Explain to and provide information the competent state authorities as required.
- 6. In the event that the HW generator collects, transports, stores, treats and disposes the HWs themselves, they also

have to register and apply for license complying with all the requirements stated in Chapter 3 and 4 of this regulation.

Chapter 3 Responsibility of the HW Collector and Transporter

Article 11

The collector and transporter must have the technically adequate facility to ensure the technical safety requirements as follows:

- 1. Mechanical and chemical stability while operating.
- 2. Does not cause leakage, release into the environment, does not mix different HW, not made of materials that are easy to react with HW.
- 3. Has an alarm facility, and equipment for emergency response.
- 4. Has relevant warning labels.

Article 12

Responsibilities of the Collector and Transporter of HW

- 1. Collect and transport the amount and type of HW as noted on the accompanying HW manifest documentation.
- Complete the procedures relating to the HW manifest document, complete and sign Part of the HW manifest document; require the storage owner, and disposer to sign Part of the HW manifest document. The Collector, transporter keeps one copy and the remaining 3 copies are handed over to the storage owner, and the disposer.
- 3. Hand over HW to the storage owner, and disposer as stated on the HW manifest document.
- 4. Report to the Agency in charge of State Management of Environment Protection according to the form and due-date stated on HWM registration document (Attached Annex 4).

Article 13

In the event of any problems arising, the collector and transporter have the responsibility:

- 1. To carry out emergency measures in order to reduce damage to the environment and human health.
- 2. To immediately inform the local Agency in charge of State Management of Environment Protection to coordinate for the treatment and also provide full, accurate and required information in time to the Agency in charge of State Management of Environment Protection and the local People's Committee, and carry out their instructions to overcome the problem.
- 3. Quickly overcome the problem caused by HW and be responsible for paying compensation for damages to health, property, and environment as specified under the law.
- 4. In the event that the HW must be transported out of the problem area, the transporter must obtain the approval from the local Agency in charge of State Management of Environment Protection.

Article 14

Transporting the HW across borders must comply with the regulations of the "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal" (the Basel Convention 1989) as follows:

- 1. HW transited through VN territory including internal waters and territorial waters must obtain written approval from the central Agency in charge of State Management of Environment Protection, and to be controlled, supervised by the relevant offices in accordance with Vietnamese Law on transit of goods. Transporting HW through exclusive economic zones of Vietnam must have prior consent to the Vietnamese central Agency in charge of State Management of Environment Protection.
- 2. The individual or organization who want to transit HW through Vietnamese territory, must apply for approval from the central Agency in charge of State Management of Environment Protection. The application form must have the following details:
 - a) The departure and destination of the HW
 - b) Scheduled date, time of transit of HW through VN territory.
 - Quantity, type of HW or other waste to be transited.
 - c) Certificate of the import country stating that the import of this quantity and type of HW does not violate the law or any international conventions that the country participates or signs.
 - d) All the information relating to the exporter, transporter, disposer as well as their approved facilities for operation.
 - e) All the information relating to the procedure to implement emergency response to incidents during transit.
 - f) Insurance and other information.
 - g) Within 60 days of receiving the application, the Agency in charge of State Management of Environment Protection will reply to accept the transit or not.

- 3. In the event of obtaining approval, the individual or organization transiting HW must follow the following regulations:
 - Package the HW in suitable containers and label according to international standards.
 - Guarantee that the HW will not be leaked at the borders and during transit.
- 4. Any action of transiting HW that does not follow the above regulations or does not comply with the license, is considered illegal action and will be punished according to Vietnamese Law.
- 5. In case of leakage or release of HW, the individual or organization must immediately inform the Agency in charge of State Management of Environment Protection and must carry out all the requirements as stated in Article 16.

Chapter 4

Responsibilities of the HW Storage Owner and Disposer

Article 15

The Storage owner, and disposer of HW has the following responsibilities:

- 1. Develop an environmental impact assessment report and submit to the Agency in charge of State Management of Environment Protection for approval. Use the means, storage equipment, treatment equipment and disposal of HW as the requirements state in the license issued by the Agency in charge of State Management of Environment Protection.
- 2. Receive HW from the generator, collector, transporter according to the contract signed between the two parties, with attached complete HW manifest document.
- 3. Have a plan and adequate facilities to meet the requirements of prevention and emergency response.
- 4. Complete the HW manifest document and send back one copy to the generator, one to the collector and one to the transporter.
- 5. Report to the Agency in charge of State Management of Environment Protection on the information relating to HWM (Attached Annex 4).
- 6. Train technical staff to meet the requirements of storage, treatment and disposal of HW.

Article 16

The HW Disposer must undergo the followings:

- 1. Do not landfill the HW with non HW;
- 2. Only landfill HW at the specified site;
- 3. The HW landfilling area must meet the environmental requirements and technical requirements guided and stipulated by the Agency in charge of State Management of Environment Protection;
- 4. Do not overload the capacity of the HW landfilling area;
- 5. Do not discharge HW into the environment, including air, land, water.

Article 17

During HW treatment and disposal process, the disposer must follow all requirements specified in the environmental impact assessment report. Air emission, wastewater, sludge, ash must be monitored and their composition must be analyzed and results recorded in a diary for monitoring and treatment so as to comply with Vietnamese Standards (hereinafter called TCVN). In the event of not complying with TCVN, the disposer must:

- 1. Have measures to upgrade the air treatment, wastewater, sludge, ash system within the permitted period by the Agency in charge of State Management of Environment Protection.
- 2. Landfill the treated waste (that is not TCVN compliant) at the stipulated site.
- 3. The Collector, Transporter, Storage owner, and Disposer are not allowed to dilute HW or mix the HW with non HW.

Article 18

In the event of incidents occur, the Storage Owner and the Disposer must:

- 1. Carry out emergency measures to minimize damage to the environment and human health.
- 2. Immediately inform the local Agency in charge of State Management of Environment Protection and local provincial People's Committee to instruct and coordinate the action; at the same time providing sufficient and accurate data on the incident to local Agency in charge of State Management of Environment Protection and provincial People's Committee where incident occurs and follow their instruction for response to incident.
- 3. Immediately response to incident caused by HW. Pay compensation for damage to health, property and environment according to the Law in the event of letting incident cause damage to the environment, human property and health.
- 4. In the event that the HW must be transported out of the incident area, they must obtain the prior approval from the

local Agency in charge of State Management of Environment Protection.

Article 19

In the event of closing the storage, treatment and disposal of HW facilities, the Collector and the Disposer has the responsibility to:

- 1. Immediately inform the central and local Agency in charge of State Management of Environment Protection and the local provincial People's Committee of the reasons the proposed time of terminating operation;
- 2. Submit the Environmental Protection Plan for after-closing period of the facility, to the Agency in charge of State Management of Environment Protection and the local provincial People's Committee. Content of the plan should include the following:
 - a) The technological measures to treat environmental pollution.
 - b) Methods to rehabilitation and utilize land after closing operation.
 - c) The requirement and monitoring measures after closure.
- 3. Deal with all other arising consequences.
- 4. The Agency in charge of State Management of Environment Protection at central or local level within their authorities must assess and advise the People's Committee of Cities and Provinces in making the decision to cease the operation of HW storage, treatment or disposal facility.

Article 20

For any existing polluted area, the local authority has the responsibility to act according to their competence, if it goes beyond their ability, they should submit to the Agency in charge of State Management of Environment Protection and relevant bodies to coordinate solutions.

The existing polluted area relating to security and national defense will be settled by the Ministry of Defense and Ministry of Interior according to their authorities, if it goes beyond their competence, they should report to the Agency in charge of State Management of Environment Protection and relevant bodies to coordinate solutions.

Chapter 5 State Management of HW

Article 21

The responsibilities of the Ministry of Science, Technology and Environment:

- 1. Undertake the state management on HW throughout the country and to organize and instruct implementation of HW management.
- 2. Develop and promulgate or submit for promulgation to the Government other necessary legal document relating to HWM.
- 3. Grant registration number and environmental licenses to the generator, collector, storage owner, and disposer of HW (attached Annex 2A, 2B)
- 4. Promulgate environmental requirements for the selection of HW landfill, promulgate the technical and environmental requirements for design, construction and operation of storage and landfill site which ensures environmental hygiene; select and advise on technology for HW treatment; coordinate with Ministry of Finance to set up regulation on fees of HWM.
- 5. Instruct the development of and assess the environmental impact assessment report for the collection, storage, disposal and landfill facilities for HW.
- 6. Research and apply new technology in HWM.
- 7. Investigate and evaluate the environmental pollution level at the HW collection, storage, disposal site; implement periodically check and irregular inspection of HWM activities.
- 8. Implement training and awareness raising of HWM:
 - a) Being the host, coordinate with relevant Ministries and Branches and the local level to teach the HWM regulation across the country.
 - b) Coordinate with the relevant ministries and branches to organize technical training for people carrying out HWM.
 - c) Coordinate with the relevant ministries and branches to improve the HWM knowledge for the leaders and people by the public media.
- 9. Implement inventory HW annually, summarize the HWM situation all over the country and report to the Prime Minister.

Article 22

Responsibilities of the Ministry of Construction.

1. Instruct the cities and provinces directly under central government level in planning construction of sanitary HW

treatment facilities, including HW landfill, suitable to the Socio-Economic development planning of the localities.

- 2. Collaboration with People's Committee in instructing the local Department of Construction to develop the construction plans for the storage, treatment and disposal facilities of HW then submit to the People's Committee for approval.
- 3. Collaboration with People's Committee in instructing the local Department for Transport and Public Works to develop and implement the waste management plan (including HW) at their localities.
- 4. Collaborate with the cities and provinces directly under central government level to supervise urban management, especially paying attention to the collection, transportation, storage, treatment, and disposal of HW in urban and industrial zones.
- 5. Promulgate instructions for the collection, transportation, storage, disposal of HW in construction, especially in urban and industrial zones.
- 6. Coordinate and collaborate with MOSTE to study, produce and instruct the use of the industrial type and model of the equipment particularly for HWM activities.

Article 23

Responsibility of the Ministry of Industry

- Inspect, supervise, and implement all the effective measures to ensure the HW generator strictly follows this
 regulation. In the event that the HW generator cannot collect, transport, store, dispose of HW, the Ministry of
 Industry requests the HW generator to sign the contract with the collector, transporter, storage owner and disposer.
- 2. Mobilize the capital resources to invest in HW treatment facility, replace outdated technology by modern, better technology; coordinate with MOSTE to implement inventory of HW from industries.
- 3. Coordinate with MOSTE to investigate, assess the environmental pollution level caused by the business and manufacturer, which are under the management of the Ministry of Industry.

Article 24

Responsibility of the Ministry of Health

- 1. Enhance the inspection, supervision and methods to ensure that hospitals, health stations, health services strictly implement the HWM regulation.
- 2. Collaborate with the MOSTE, Ministry of Construction in planning, selection of technology, equipment, installation and operation of appropriate incineration system complying with TCVN.
- 3. Promulgate the regulation on management medical waste.

Article 25

Responsibility of the Ministry of National Defense and Ministry of Interior:

- 1. Monitoring, inspection and effective measures to ensure that the HW generator under the Ministry of National Defense and Ministry of Interior follows this regulation.
- 2. Grant the license relating to the HWM regulation for generator, collector, storage owner, transporter, and disposer of HW that have operations within national defense or security sectors.
- 3. Collaborate with MOSTE and relevant agencies in implementation of training for staff in charge of HWM and awareness raising on HW within their authorities.
- 4. Collaborate with MOSTE, The People's Committee at central or local level and the relevant ministries and branches to response to serious incidents caused by HW.
- 5. A HW generator which is licensed by the Ministry of National Defense and Ministry of Interior, but is entirely economic entity by nature must follow all the stipulation in this regulation.

Article 26

Responsibilities of the Ministry of Investment and Planning, Ministry of Finance, Ministry of Trade

- 1. Based on the annual plan and long-term plan of the ministries, agencies and provinces on HW management, provide capital resources, including foreign investment capital required in order to ensure the necessary conditions for the Ministries, Branches, local bodies to implement the HW management plan.
- 2. Collaborate with MOSTE to study, propose mechanism, financial policies, taxation for investment in and importation of equipment, technology for the HW management.
- 3. Collaborate with MOSTE in development and promulgation of regulation on HWM fee and fee of granting environmental license.

Article 27

Responsibilities of the People's Committees of the Cities and provinces directly under central government level:

1. Instruct the Departments of Construction to develop planning for HW storage, treatment, disposal and landfill

facilities within areas of their authorities.

- 2. Instruct Departments of Transportation and Public Works to make the feasibility study (for organizing, evaluating measures, equipment, technology, capital etc.) and organize the implementation of the waste management plan, including collection, transportation, treatment and disposal of HW in the localities.
- 3. Instruct DOSTE to:
 - a) Grant registration number and environmental licenses to the generator, collector, transporter, and disposer of HW (according to Annex 2A, 2B of this regulation).
 - b) Provide guidance on the content and requirements of the environmental impact assessment report to HW storage owner, transporter, disposer, and landfill operator for submission to the Agency in charge of State Management of Environment Protection for approval.
 - c) Inspect and assess environmental pollution at the HW storage, treatment, disposal and landfill areas within localities.
 - d) Implement training and awareness raising on HWM within localities.
 - e) Implement annual inventory of HW, report to MOSTE for summarising and submission to the Prime.
- 4. Coordinate and collaborate with the Ministry of Construction to make decisions on various aspects including land-use planning for HW treatment and landfill areas; Organize within authorities services for effective HW management; exploiting the capital from various economic sectors of the cities, provinces from waste fees to support from domestic and foreign sources (aid, loan with priority interest rate or JV with foreign partner) aiming at successful implementation of HWM.
- 5. Coordinate with relevant ministries and branches to investigate HWM activities.
- 6. Receive, settle any dispute, claim, accusation or proposal on HWM within their authorities or hand over to higher level.

Chapter 6 Clause on Implementation

Article 28

The ministries, agencies and provinces that manage generators of HW must instruct them to strictly implement this regulation. They are in charge of receiving, considering and resolving any dispute, claim or proposal arising about HWM within their authorities under the Laws.

Article 29

Specialized inspectors under MOSTE will carry out special inspections for HWM.

The Minister of MOSTE is responsible to the government to implement HWM inspections.

Article 30

Any organization or individual who violates the regulation will be punished according to its characteristics and level, in the event of causing damage, he has to compensate according to the Law.

Individual that seriously violates the regulation will be prosecuted in front of the Criminal Court.

Article 31

During the implementation of this regulation, any arising problems should be informed to the Prime Minister for the solution.

Deputy Prime Minister Pham Gia Khiem

Annex 1; (omitted)

List A: Wastes characterized as Hazardous Wastes

List B: Wastes characterized as Non-Hazardous Wastes

Annex 2A; (omitted)

- Hazardous Waste Management Registration for Generator
- Registration Document for Hazardous Waste Generator

Annex 2B; (omitted)

- Application form for collection, transportation, storage, treatment and disposal of Hazardous Waste
- License for Hazardous Waste Management (collection, transportation, storage, treatment and disposal)

Annex 3: Hazardous Wastes Manifest Document (omitted)

Annex 4: Hazardous Wastes Management Report (omitted)

Appendix 4 Circular Letter of Guidance on Setting Up and Reviewing the Environmental Impact Assessment (EIA) Report for Investment Projects (Circular Letter No.490/1998/TT-BKHCNMT)

MINISTRY OF SCIENCE, TECHNOLOGY & ENVIRONMENT

THE SOCIALIST REPUBLIC OF VIET NAM Independence - Freedom - Happiness

Registry. No. 490/1998/TT-BKHCNMT

Hanoi, April 29th, 1998

CIRCULAR LETTER OF GUIDANCE ON SETTING UP & REVIEWING The Environmental Impact Assessment (EIA) Report for Investment Projects

- In accordance with the Law on Environmental Protection passed by the National Assembly of the Socialist Republic of Viet Nam on December 27th, 1993 and issued by the President of the Socialist Republic of Viet Nam on January, 10th, 1994;
- In accordance with the Government Decree No. 175/CP of October 18th, 1994, relating to the Guideline on implementing the Law on Environmental Protection;
- In accordance with the Government Decree No. 10/1998/ND-CP of January 23rd, 1998 relating to several incentives and assurances provided for foreign direct investment activities in Viet Nam;
- In accordance with the Government Prime Minister's Instruction No. 11/1998 CT-TTg of March 16th, 1998 relating to the implementation of the Government Decree No. 10/1998/ND-CP and improvements of foreign direct investment procedures;
- In accordance with the Government Decree No. 22/CP of May 22nd, 1993, relating to the mandate, responsibilities, and institutional organization of the Ministry of Science, Technology and Environment,

The Ministry of Science, Technology and Environment (MOSTE) by this Circular Letter provides a guidance on setting up and reviewing the environmental impact assessment (EIA) report for domestic, joint venture and foreign direct investment projects in Viet Nam.

. GENERAL PRINCIPLES

. 1. Domestic, joint venture and foreign 100% capital investment projects and other forms of investments (hereafter called the investment projects) to be taken place within the territory of Vietnam, shall be required to comply with environmental protection provisions stipulated in this Circular Letter.

. 2. MOSTE hereto stipulates a list of the investment projects which are divided into two categories:

1. Those investment projects which are subject to the requirement of setting up and reviewing the EIA report are called in this Circular Letter as projects in Category . These include all projects which may likely cause potentially and widely spread environmental impacts and accidents, and others which may cause constraints to the environmental control or may be non-point pollution sources, are listed in Annex attached.

Investment Projects in this Category shall be eligible to apply a "Registration for Securing Environmental Standards", if they are invested into any Industrial Estates or Export Processing Zones which have been granted a decision for approval on the EIA Report.

2. Other investment projects not listed in Category , shall fall in projects in Category . These are eligible to apply a Registration for Securing Environmental Standards provided that their proponents shall have to set up and analyze themselves their own EIA reports.

. 3. The Decision on Approval of the EIA Report or the Registration for Securing Environmental Standards shall provide an environmentally legal basis on which the Government Competent Authorities evaluate and approve the follow-up activities of a proposed project.

. STAGES OF THE IMPLEMENTATION

. 1. Stage of Investment License Application

1. For Projects in Category :

When submitting the project documents for projects in Category , one part or a chapter must provide an initial description of the potentially environmental impacts that may result from the proposed project (see in Annex attached). This part or chapter shall provide a basis on which the Government Management Agencies of

Environmental Protection evaluate in the review process of a project document.

2. For Projects in Category :

Projects in Category shall be required to prepare and submit the Registration for Securing Environmental Standards to the Government Management Agencies of Environmental Protection for evaluation.

- + Contents of the Registration for Securing Environmental Standards are provided for in Annex attached to the Circular Letter.
- + The Application Document includes:
 - The application form for the Registration for Securing Environmental Standards as prescribed in Annex 2;
 - Three (3) copies of the Registration for Securing Environmental Standards, and one additional copy in English is required in cases that the project is a foreign direct or joint venture investment;
 - One copy of the Feasibility Study or the Economic-Technical Study of the proposed project.

. 2. Stage of design and construction

- 1. Having granted an investment license and located a site of a project, projects in Category shall have to set up and submit the EIA report to the Government Management Agencies of Environmental Protection for review.
- 2. Contents of the EIA report are provided for in Annex .2 of the Government Decree No. 175/CP of October 18th, 1994.
- 3. The Application Document for the EIA Review process includes:
 - The application form for the EIA Review as stipulated in Annex .1 attached;
 - Seven (07) copies of EIA report and one additional copy in English is required in cases that the project is a foreign direct or joint venture investment;
 - one (01) copy of the Feasibility Study or the Economic-Technical Study of the proposed project.

. 3. Stage of construction completion

Prior to operations of the proposed project, the Government Management Agencies of Environmental Protection shall have responsibilities:

- to inspect in collaboration with the construction licensing authorities, any waste treatment works and other safety conditions as stipulated by the environmental protection regulations;
- to enforce the compliance of environmental conditions set forth in the reviewed EIA report or the certified Registration for Securing Environmental Standards if any failure to comply with approved environmental protection options is identified;
- to consider and issue an environmental permit only when all requirements of environmental protection have been fully satisfied by the proponent.

. ORGANIZATION OF THE EIA REPORT REVIEW

- 1. Division of responsibility for the EIA report review and for evaluation of the Registration for Securing Environmental Standards is as stipulated in Annex , The Government Decree 175/CP of October 18, 1994.
- 2. The review of the EIA reports shall be carried out in accordance with provisions provided for by MOSTE Instruction Nos. 1806/QD-MTg and 1807/MTg of December 31, 1994.
- 3. The Decision on the approval of EIA report (AnnexV) for projects in Category and the certification of the Registration for Securing Environmental Standards (Annex) for projects in Category , shall be granted by the relevant Government Agency for review of the EIA report or for evaluation of the Registration for Securing Environmental Standards. And the relevant level of government shall be also responsible to monitor and inspect environmental protection activities taken by the project.
- 4. For some cases, the local Government Management Agencies of Environmental Protection may be allowed to carry out the EIA report review of projects in Category and the evaluation of projects in Category , which are not under their responsibility, provided that a request in writing for the authorization of review or evaluation is

submitted to and approved by MOSTE.

- 5. Review of an EIA report is due within 60 days of the date a sufficient and eligible document of the EIA report is received by the relevant Government Management Agencies of Environmental Protection. In case that the EIA report is unsatisfactory, the EIA report review agencies shall have 5 days of the date the EIA report is received, to notify the proponent requirements for adjustment or addition. Within 10 days following the date of the EIA report is approved, the relevant Appraisal Agencies will issue a decision on the approval of the EIA report of a proposed project.
- 6. The evaluation of "Registration for Securing Environmental Standards" and the issuance of an "Environmental Approval Certificate" are due within 20 days of the date the eligible sufficient Registration Document is received by the Government Management Agencies of Environmental Protection. In case that the Registration document is not eligible, the review agencies shall have 5 days of the date the Registration document is received, to notify the proponent requirements of adjustment or addition.

IV. ENVIRONMENTAL STANDARDS

- 1. All investment projects to be implemented within the territory of Viet Nam shall have to apply the Vietnamese Environmental Standards issued by MOSTE. Those projects to be implemented at provinces where local environmental standards are available, may be adopted, provided that such local standards must be more stringent than those standards issued by MOSTE.
- 2. In case that other environmental standards required are not stipulated by the Vietnamese Environmental Standards, the proponents may apply to adopt a set of or any standards developed by other advanced countries, provided that the adoption is subject to the permit in writing granted by MOSTE.

. IMPLEMENTATION PROVISIONS

- This Circular Letter replaces the Circular Letter No.1100/TT-MTg of 20 August 1997 by MOSTE.
- MOSTE authorizes the Provincial Departments of Science, Technology and Environment to monitor and inspect seriously the implementation of decisions on approval of EIA reports, certificates of the Registration for Securing Environmental Standards and the compliance of existing environmental protection regulations by all the projects being implemented within territories under their jurisdictions. Serious legal treatments shall be applied for any violations of projects against the environmental protection regulations.
- The National Environment Agency of MOSTE or Departments of Science, Technology and Environment shall be responsible to conduct the evaluation and issuance of the Registration for Securing Environmental Standards for proposed projects as decentralized in Item 1, Paragraph of this Circular Letter.
- Those EIA reports which were submitted to the Government Management Agencies of Environmental Protection before the date that this Circular Letter comes into effect, shall be reviewed in accordance with the previous EIA review procedures.
- This Circular Letter shall come into effect within 15 days following the date of the signature of issuance.

- Line Ministries, Ministerial level Agencies,
- Governmental Agencies;
- Provincial and City People's Committees;
- Departments of Science, Technology & Environment;
- Departments of Planning & Investment; Departments of Construction;
- file: The office of MOSTE and NEA

Minister of Science, Technology & Environment (signed) Chu Tuan Nha

c.c.to:

⁻ The Office of Government (for report);

ANNEX

LIST OF PROJECTS SUBJECT TO REQUIREMENT OF EIA REPORT SUBMITTAL AND APPROVAL

- 1. Investment projects to be implemented within or adjacent to areas of environmental sensitivity, natural resource
- protected areas, tourist areas, areas of internationally and nationally valued historical and cultural sites 2. **Planning**
- . Flaining
 - 2.1 Regional Development;2.2 Sectoral Development;
 - 2.2 Sectoral Development;
 - 2.3 Urban Development;
 - 2.4 Industrial estate/ Export processing zone development;
- 3. Oil and Gas
 - 3.1 Exploitation;
 - 3.2 Processing;
 - 3.3 Transportation;
 - 3.4 Storage of oil and gasoline (with capacity of more than 20,000 m³)

4. **Metallurgy** including steel, iron cast, and non-ferrous metal factories (with capacity of more than 100,000 tons per year)

- 5. **Tannery** factory (with capacity of over 10,000 tons of product per year)
- 6. Textile/dye factory (with capacity of over 20 million meters per year)

7. Paint factory (with capacity of over 1,000 tons products per year)

- 8. Cane Sugar factory (with capacity of over 100,000 tons of cane per year)
- 9. Food processing plant (with capacity of over 1,000 tons of product per year)
- 10.Freezing refrigeration plant (with capacity of 1,000 tons of product per year)
- 11. Thermal power plant (with capacity of over 200 MW)

12.**Pulp and Paper** mill (with capacity of over 40,000 tons of pulp per year)

13.**Cement** factory (with capacity of over one million tons per year)

14. Tourism and entertainment resort (with area of over 100 hectare)

15.Airport

16.**Port** (with ship capacity of over 10,000 DW tons)

17.**Railway, expressways & highways** of (grades 1,2,3 as stipulated by TCVN 4054-85) (with length of over 50 km) 18.**Hydropower** plant (with reservoir of over 100 million m³)

- 19. Water Resource Work (irrigation, drainage and salt water control, etc.) (with area of over 10,000 hectare)
- 20. Waste treatment facilities (Centered wastewater treatment plant with capacity of over 100,000 m³ per day; solid waste landfill)

21. Mineral mining, construction materials factory (with total solid mineral, waste soil & rock volume of 100,000 m³ per year)

- 22.**Timber harvesting** farm (all scales)
- 23.Aquaculture farm (with area of over 200 hectare)
- 24. Toxic chemical production, storage and usage (all scales)

25.Nuclear Reactor (all scales)

Note: If the above prescribed projects to be invested in any industrial estates or export processing zones which have been granted a decision on EIA report approval, shall be eligible to only apply the Registration for Securing Environmental Standards provided that they will set up and analyze themselves their EIA reports.

ANNEX

DESCRIPTION OF ENVIRONMENTAL IMPACT FACTORS

(included in the Feasibility Study or the Economic-Technical Study Report for Investment license)

. SUMMARY OF MAJOR ENVIRONMENTAL IMPACT FACTORS

- 1. Describe data on existing environmental conditions (air, ground and surface water quality and ecosystems, etc.) of the site where a proposed project to be implemented. Give general comments on the current levels of pollution at the proposed site of a project.
- 2. Describe the production technology processes or flow charts, usage of raw materials and fuels, a list of chemicals, etc. (if these are not clearly descried in the economic-technical studies).
- 3. Describe in details major factors which may cause environmental effects by the project implementation activities (specify estimates of air emissions, wastewater and solid waste discharges, and levels of noise, etc.). Predict level of effects which may be occurred on the environment.

. SUMMARY OF PROPOSED REMEDY OPTIONS FOR NEGATIVE ENVIRONMENTAL EFFECTS BY THE PROJECT

ANNEX

(FOR PROJECTS UNDER THE STAGE OF INVESTMENT LICENSE APPLICATION) CONTENTS OF THE REGISTRATION FOR SECURING ENVIRONMENTAL STANDARDS

Project title: Proponent's Address: Telephone number: Fax number:

1. Description of the site where the project activities to be implemented

- Location
- Area of the space
- The shortest distance from residential areas and other industries
- Existing land use
- Water supply sources, water extraction locations, water demand per day
- Transport networks of raw materials and finished products
- Wastewater receiving environment from the project activities
- Solid waste storage and treatment sites

2. Summary of production technologies (*Note: if the proposed project includes raw materials extraction and supplies that relevant issues must be described in details*)

- Total capital investment
- Lists of raw materials, fuels, by-products (the characteristics, annual demands of consumption, suppliers' address)
- Modes of raw materials, fuel and by-product transports, supplies and storage
- Capacities
- Production process flow charts (Note: Description in details of supporting stages including water supply treatment, generators, boilers, heaters, cooling systems, etc.)
- Equipment specifications
- Quality of Products
- Modes of product storage and transport

3. Pollution Sources

- Air emissions
 - + Generation sources
 - + Loads
 - + Concentration of air pollutants

- Wastewater Discharges (Note: clarify related parameters of cooling water, recycled water in the production process)

- + Generation sources
- + Loads
- + Concentration of contaminants
- Solid wastes
 - + Generation sources
 - + Loads
 - + Concentration of pollutants
- Accidents by the project activities (fires, explosions, chemical leakage, oil spillage, etc.)
 - + causes of accidents
 - + Scale of effects

4. Pollution mitigation measures

- Air pollutants collection and treatment systems:
 - + the height of stacks
 - + treatment equipment specifications
 - + treatment technologies and efficiencies
 - + usage of chemicals (volumes, compositions)
 - + estimated costs of construction, installation, and operation.

- Wastewater collection and treatment systems:

- + collection channels and drainage
- + structure of treatment tanks
- + treatment technologies and efficiencies
- + usage of chemicals (volumes, compositions)

- + contaminants from treatment processes
- + estimated costs of construction, installation, and operation
- Solid waste collection and treatment process:
 - + structure of solid waste storage/tanks
 - + transport processes
 - + treatment techniques (drying, solidification, landfill, incineration, composting, etc.)
 - + estimated costs of construction, installation and treatment
- Percentage of vegetation cover in open spaces of the factory
- Emergency responses and preparedness options:
 - + equipment
 - + procedures+ usage of chemicals
 - + usage of chemicals
 - + effectiveness
 - + estimated costs of equipment purchases and periodical training

5. Environmental monitoring programs

- monitoring locations
- monitoring criteria
- monitoring frequency
- estimated costs of monitoring

6. Commitments in securing environmental standards

- Application of the Vietnamese environmental standards
- Adoption of foreign environmental standards which are not stipulated by Viet Nam (name of countries, year of issuance, issuance authorities, validity of standards). (*Note: copies of sufficient standard contents are attached*)
- Completion time of treatment facilities
- Pledge to be fully liable according to the Vietnamese laws for any violations against international conventions, the Vietnamese environmental standards and for any environmental pollution accident.

Done at.....(year)...... (year)...... Proponent's signature (*full name, position, stamp*)

Annex .1

THE SOCIALIST REPUBLIC OF VIETNAM Independence-Freedom - Happiness

APPLICATION FOR THE EIA REPORT REVIEW

At...... on (date).....(month).....(year).....

To: Minister of Science, Technology & Environment (or Chairman of Provincial/City People's Committees)

We, the undersigned, are	the proponent of
Contact address of applicant(s)	

Location of the project site	
Telephone No.	
Fax No	

submit to the Ministry (Provincial/City People's Committee) the following documents

Economic - Technical Feasibility Study (one copy in Vietnamese); - Environmental Impact Assessment Report (seven copies in Vietnamese and one copy in English).

We hereby declare that all the data given in this application is to the best of our knowledge and belief true and correct. And we also pledge that those chemicals and species of microorganisms are stipulated by the Prohibition List of Viet Nam or by the International Conventions to which Viet Nam has adhered, will not be used. We also guarantee that the standards and criteria developed by other countries and the international organizations, which are exerted and adopted in our Report are true and valid.

We pledge to be fully liable to the laws of the Socialist Republic of Viet Nam if any offenses are committed.

We apply for a review of our report by the Ministry of Science, Technology and Environment (or Provincial/City People's Committee(s) authorized by the Ministry).

Signature of proponent and stamp

Annex

THE SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF SCIENCE. TECHNOLOGY & ENVIRONMENT (Provincial/City People's Committee) Independence-Freedom-Happi

Registry No. /QD-BKHCNMT At......(date).....(month).....(year)..

DECISION BY THE MINISTER OF SCIENCE, TECHNOLOGY & ENVIRONMENT (or by Chairman of Provincial/City People's Committee) on the approval of the EIA report of the proposed project

THE MINISTER OF SCIENCE, TECHNOLOGY & ENVIRONMENT (the Chairman of Provincial/City People's Committee)

In accordance with the Law on Environmental Protection passed by the National Assembly of the S.R.V.N on 27 December, 1993; In accordance with the Governmental Decree 175/CP of October, 18th, 1994 on the Guidance to the implementation of the Law on Environmental Protection:

Protection: In accordance with the Governmental Decree 22/CP of May 22nd, 1993 on the mandate, responsibilities, and institutional organization of the Ministry of Science, Technology and Environment (Provincial/City People's Committee); Considering the application for review of the EIA report dated (date).....(month).....(year)....by Reviewing the meeting minute prepared and submitted by the EIA report Review Council on the project......held on (date).....(month)......(year)......,

Environmental Protection monitor the implementation of environmental protection by the project. Article 4. Proponent of the project shall report in a written form, the completion of environmental works to the Government Management Agencies of Environmental Protection for inspection. Article 5. To authorize the Department of Science, Technology and Environment of the Province/ City......to conduct environmental monitoring and inspection of the implementation of environmental protection by the project by the project.

- The proponent - Relevant Ministries/ Agencies - Provincial/City People' s Committees - Provincial/City Department of Science, Technology & Environment - Files: Office of the Ministry, Provincial/City

Annex .2

Fax No.....

THE SOCIALIST REPUBLIC OF VIETNAM Independence-Freedom - Happing At.....(year)...... APPLICATION FOR A REGISTRATION FOR SECURING ENVIRONMENTAL STANDARDS To: Minister of Science, Technology & Environment (or Chairman of Provincial/City People's Committees) We, the undersigned, are..... the proponent of..... Contact address of applicant(s)..... Location of the project site Telephone No.

submit to the Ministry (Provincial/City People's Committee) the following

Economic -Technical Feasibility Study (one copy in Vietnamese); and
 Registration for Securing Environmental Standards (three copies in Vietnamese and one copy in English).

We hereby declare that all the data given in this application is to the best of our knowledge and belief true and correct. And we also pledge that those chemicals and species of microorganisms are stipulated by the Prohibition List of Viet Nam or by the International Conventions to which Viet Nam has adhered, will not be used. We also guarantee that the standards and criteria developed by other countries and the international organizations, which are exerted and adopted in our Report are true and valid. We will undertake that the construction of waste treatment work(s) shall be completed as stipulated in the schedule, and sufficient funds of the waste treatment operations and environmental monitoring activities shall be provided. provided.

We pledge to be fully liable to the laws of the Socialist Republic of Viet Nam if any offenses are committed.

We apply for a certification of the Registration by the Ministry of Science, Technology and Environment (or Provincial/City People's Committee(s) authorized by the Ministry).

Signature of proponent and stamp

Annex

MINISTRY OF SCIENCE, TECHNOLOGY & ENVIRONMENT THE SOCIALIST REPUBLIC OF VIET NAM Independence-Freedom-Happiness Independe (Provincial/City People's Committee) (Provincial/City People's Committee) NATIONAL ENVIRONMENT AGENCY (Department of Science, Technology & Environment) Registry No. /CMTg (Department Registry No.) At......

At...... (date)..... (month).....(veat)...

CERTIFICATE FOR REGISTRATION FOR SECURING ENVIRONMENTAL STANDARDS For the project.....

THE DIRECTOR GENERAL OF

NATIONAL ENVIRONMENT AGENCY (or the Director of Provincial/City Department of Science,

Technology & Environment)

CERTIFIES

Article 1. That the Project......submitted its Registration for Securing Environmental Standards on (date).....(month).....(year)

Article 2. Proponent of the project shall be responsible to comply with contents stated in the Registration for Securing Environmental Standards.

Article 3. The Registration for Securing Environmental Standards of the project shall be a basis on which the Government Management Agencies of Environmental Protection monitor the implementation of environmental protection by the project.

Article 4. Proponent of the project shall report in a written form the completion of environmental work(s) to the Government Management Agencies of Environmental Protection for inspection.

Proponent of the project Relevant Ministries/Agencies

Provincial/City People's Committee

Provincial/City Department of Science, Technology & Environment

- File: Office of NEA

Director General National Environment Agency (Director of Provincial/City

Department of Science, Technology & Environment) (Signature)

Minister of Science, Technology & Environment (Chairman of Provincial/City People's Committee) (Signature)

Appendix 5 Water Quality – Surface Water Quality Standards (TCVN5942-1995)

VIETNAM STANDARD

Water quality - Surface water quality standard

1. Scope

1.1 This standard specifies parameter limits and maximum allowable concentrations of pollutants in surface water.

1.2 This standard is applicable to control of a surface water source.

2. Limitation value

2.1 Parameter limits and maximum allowable concentration of pollutants in surface water are specified in the table 1.

2.2 Standard methods of analysis of parameters and pollutant concentrations of surface water are specified in available current TCVNs.

Table 1 Parameter limits and maximum allowable concentration of pollutants in surface water

No	Parameter and substance	Unit	Limitation value	
NU	I arameter and substance	Oint	А	В
1	pH value		6 - 8.5	5.5 - 9
2	BOD ₅ (20)	mg/liter	< 4	< 25
3	COD	mg/liter	< 10	< 35
4	DO (Dissolved oxygen)	mg/liter	6	2
5	SS (Suspended solids)	mg/liter	20	80
6	Arsen	mg/liter	0.05	0.1
7	Barium	mg/liter	1	4
8	Cadmium	mg/liter	0.01	0.02
9	Lead	mg/liter	0.05	0.1
10	Chromium, Hexavalent	mg/liter	0.5	0.05
11	Chromium, Trivalent	mg/liter	0.1	1
12	Copper	mg/liter	0.1	1
13	Zinc	mg/liter	1	2
14	Manganese	mg/liter	0.1	0.8
15	Nickel	mg/liter	0.1	1
16	Iron	mg/liter	1	2
17	Mercury	mg/liter	0.001	0.002
18	Tin	mg/liter	1	2
19	Ammonia (as N)	mg/liter	0.05	1
20	Fluoride	mg/liter	1	1.5
21	Nitrate (as N)	mg/liter	10	15
22	Nitrite (as N)	mg/liter	0.01	0.05
23	Cyanide	mg/liter	0.01	0.05
24	Phenol compounds	mg/liter	0.001	0.02
25	Oil and grease	mg/liter	N.D.	0.3
26	Detergent	mg/liter	0.5	0.5
27	Coliform	MPN/100ml	5000	10000
28	Total pesticides (except DDT)	mg/liter	0.15	0.15
29	DDT	mg/liter	0.01	0.01
30	Gross alpha activity	Bq/liter	0.1	0.1
31	Gross beta activity	Bq/liter	1.0	1.0

Note :

- Values in the column A are applied to the surface water using for source of domestic water supply with appropriate treatments.

- Values in the column B are applied to the surface water using for the purposes other than domestic water supply. Quality criteria of water for aquatic life are specified in a separate standard.

Appendix 6 Air Quality – Ambient Air Quality Standards (TCVN5937-1995)

VIETNAM STANDARD

Air quality – Ambient air quality standard

1. Scope

1.1 This standard specifies concentration limits of main constituents in ambient air (carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead particulate, suspended particles).

1.2 This standard applies to evaluation of ambient air quality and to monitoring of air pollution status.

2. Limitation values

The limits of main parameters in ambient are shown in the table 1.

(mg/m ³)				
No	Parameter	1hr-averaging time	8hr-averaging time	24hr-averaging time
1	СО	40	10	5
2	NO ₂	0.4		0.1
3	SO ₂	0.5		0.3
4	Lead (particulate)(Pb)			0.005
5	O ₃ (ozone)	0.2		0.06
6	SS(Suspended particulate matter)	0.3		0.2

Table 1 Ambient air quality standards

Note - Standard methods of analysis of ambient air quality parameters are specified in available current TCVNs.

Appendix 7 Sources of Environmental Information in Vietnam and Japan

- 1.ベトナム / in Vietnam
- (1)ペトナム政府機関及びその他機関 / Vietnamese government agencies and other institutions
- 1)科学技術環境省(MOSTE)/Ministry of Science, Technology and Environment: MOSTE 39 Tran Hung Dao St., Hanoi, Vietnam
 - phone +84-4-9439731
 - fax +84-4-8252733
 - URL http://www.moste.gov.vn/
- 2)国家環境庁(NEA)/National Environment Agency:NEA
 - 67 Nguyen Du St., Hanoi, Vietnam phone +84-4-8260781/8262902 Fax +84-4-9342123
 - URL http://www.nea.gov.vn/
- 3) ハノイ市科学技術環境局 (ハノイ市 DOSTE) / Department of Science, Technology and Environment, Hanoi: DOSTE Hanoi

2 Phan Chu Trinh Alley, Hanoi, Vietnam phone +84-4-8227591 fax +84-4-8251894

4) ホーチミン市科学技術環境局 (ホーチミン市 DOSTE)/ Department of Science, Technology and Environment, Ho Chi Minh City: DOSTE HCMC

244 Dien Bien Phu, District 1, Ho Chi Minh City, Vietnam +84-8-9327831

- fax +84-8-8242710
- 5) 計画投資省 (MPI) / Ministry of Planning and Investment: MPI

56 Quoc Tu Giam St., Hanoi, Vietnam

- phone +84-4-8235606
- fax +84-4-8459271
- URL http://khoahoc.vnn.vn/mpi_website/
- 6) ホーチミン市計画投資局 (ホーチミン市 DPI)/ Department of Planning and Investment, Ho Chi Minh City: DPI HCMC
 - 32 Le Thanh Ton St., Dist 1., Ho Chi Minh City, Vietnam
 - phone +84-8-8294988
 - fax +84-8-8295008
 - URL http://www.hcminvest.gov.vn/

7) ベトナム規格センター (VSC) / Vietnam Standards Centre : VSC

8 Hoang Quoc Viet, Cau Giay District, Hanoi, Vietnam

- phone +84-4-7564407
- fax +84-4-8361771
- URL http://www.tcvn.gov.vn/english/main_en.htm

(2) 日本政府機関及びその他機関 / Japanese government agencies and other institutions

- 1)ベトナム日本国大使館 / Embassy of Japan in Vietnam 27 Lieu Giai, Ba Dinh District, Hanoi, Vietnam phone +84-4-8463000 fax +84-4-8463043
- 2) ホーチミン日本国総領事館 / Consulate-General of Japan at Ho Chi Minh City 13-17 Nguyen Hue, District 1, Ho Chi Minh City, Vietnam phone +84-8-8225314 fax +84-8-8225316
- 3) ジェトロ・ハノイ事務所 / JETRO (Japan External Trade Organization) Hanoi 3rd Floor, 63 Ly Thai To, Hanoi, Vietnam phone +84-4-8250630 fax +84-4-8250552
- 4)ジェトロ・ホーチミン事務所 / JETRO (Japan External Trade Organization) Ho Chi Minh 14th Floor, Sun Wah Tower, 115 Nguyen Hue St., District 1, Ho Chi Minh City, Vietnam phone +84-8-8219363
 fax +84-8-8219362
- 5)ベトナム日本商工会 / The Japan Business Association in Vietnam Room 305, 63 Ly Thai To, Hanoi, Vietnam phone +84-4-9343570 fax +84-4-9343571
- 6) ホーチミン日本商工会 / Japanese Business Association of Ho Chi Minh City #1407 14F, Sun Wah Tower, 115 Nguyen Hue St., District 1, Ho Chi Minh City, Vietnam

phone +84-8-8219369 fax +84-8-8219370

- URL http://www.jbah.info/
- 7)国際協力事業団ベトナム事務所/ JICA (Japan International Cooperation Agency) in Vietnam 11th Floor, Office Tower, Daeha Business Center, 360 Kim Ma St., Ba Dinh District, Hanoi, Vietnam

phone	+84-4-8315005

- fax +84-4-8315009
- URL http://www.jicavietnam.org.vn/
- 8)国際協力銀行ハノイ駐在員事務所 / JBIC (Japan Bank for International Cooperation) Representative Office in Hanoi

6th Floor, 63 Ly Thai To, Hanoi, Vietnam phone +84-4-8248934 fax +84-4-8248937

- 2.日本 / in Japan
- (1)日本政府及びその他日本機関 / Japanese government agencies and other institutions
- 1) 環境省地球環境局環境協力室 / Office of Overseas Environmental Cooperation, Global Environment Bureau, Ministry of the Environment

〒100-8975 東京都千代田区霞が関 1-2-2 中央合同庁舎 5 号館

1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8975 Japan

- phone (03) 3581-3351(代)
- fax (03) 3581-3423
- URL http://www.env.go.jp/
- 2)日本貿易振興会(ジェトロ) / JETRO (Japan External Trade Organization) 〒105-8466 東京都港区虎ノ門 2-2-5 共同通信会館

2-2-5 Toranomon, Minato-ku, Tokyo 105-8466 Japan

- phone (03) 3582-5179(海外調査部アジア大洋州課)
- URL http://www.jetro.go.jp/top-j/
- 3)日本貿易振興会アジア経済研究所 / Institute of Developing Economies : IDE 〒261-8545 千葉県千葉市美浜区若葉 3-2-2
 - 3-2-2 Wakaba, Mihama-ku, Chiba-shi, Chiba 261-8545 Japan
 - phone (043) 299-9500
 - URL http://www.ide.go.jp/Japanese/index4.html
- 4)国際協力事業団 / JICA (Japan International Cooperation Agency) 〒151-8558 東京都渋谷区代々木 2-1-1 新宿マインズタワー 6~13 階
 6-13F, Shinjuku Maynds Tower 1-1, Yoyogi 2-chome, Shibuya-ku, Tokyo 151-8558 Japan phone (03) 5352-5311
 URL http://www.jica.go.jp/
- 5)国際協力銀行 / Japan Bank for International Cooperation

〒100-8144 東京都千代田区大手町 1-4-1

1-4-1 Otemachi, Chiyoda-ku, Tokyo 100-8144 Japan

- phone (03) 5218-3101
- fax (03) 5218-3955
- URL http://www.jbic.go.jp/japanese/
- 6) 経済団体連合会 / Keidanren, Japan Federation of Economic Organizations 〒100-8188 東京都千代田区大手町 1-9-4(経団連会館)

1-9-4 Otemachi, Chiyoda-ku, Tokyo 100-8188 Japan

- phone (03) 5204-1500
- fax (03) 5255-6255
- URL http://www.keidanren.or.jp/indexj.html

- 7)日本商工会議所国際部 / International Division, Japan Chamber of Commerce and Industry 〒100-0005 東京都千代田区丸の内 3-2-2 東京商工会議所ビル 6 階 6F, Tokyo-Syokokaigisho Building, 3-2-2, Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan phone (03) 3283-7824 URL http://www.jcci.or.jp/
- 8)(財)地球・人間環境フォーラム / Global Environmental Forum 〒106-0041 東京都港区麻布台 1-9-7

1-9-7 Azabudai, Minato-ku, Tokyo 106-0041 Japan

- phone (03) 5561-9735
- fax (03) 5561-9737
- URL http://www.shonan.ne.jp/~gef20/gef/
- (2)ペトナム政府機関及びその他機関 / Vietnamese government agencies and other institutions
- ベトナム社会主義共和国大使館/Embassy of the Socialist Republic of Viet Nam in Japan 〒151-0062 東京都渋谷区元代々木町 50-11 50-11 Moto-Yoyogicho, Shibuya-ku, Tokyo 151-0062 Japan phone (03) 3466-3311 URL http://www.vietnamembassy.jp/index_j.html
- 2) 大阪ベトナム社会主義共和国総領事館 / Consulate-General of the Socialist Republic of Viet Nam in Osaka

〒541-0059 大阪市中央区博労町 1-4-10 エステート博労町ビル 10 階 10F, Estate Bakurocho Building, 1-4-10 Bakuro-cho, Chuo-ku, Osaka 541-0059 Japan phone (06) 6263-1600 fax (06) 6263-1770

3) ベトナム商工会議所日本代表事務所 / Representative Office of Vietnam Chamber of Commerce and Industry in Japan

〒107-0052 東京都港区赤坂 6-4-20 6-4-20 Akasaka, Minato-ku, Tokyo 107-0052 Japan phone (03) 3585-7349 fax (03) 3585-8492