

Development of the Port of Baku
Port Master Plan
Environmental Analysis
Phase III Final Report,
Vol V

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Volume V:

**Environmental Analysis** 





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#### Oil Spill Fighting Equipment - Contingency Planning

A contingency plan exists but there is no way of implementing it. The port's oil spill fighting equipment is in a poor condition. Two small oil sweeping vessels are placed on shore, two are said to be in an operational condition. The plan for repairing the sweeping vessels has been confirmed by the port, but up to now it has not been realised.

A list of the present oil spill fighting equipment as well as of new equipment that is wanted by the port has been worked out by the Ecological Department and is attached as Annex 5 to this report. Comments are given to this list in chapter 7 of this report.

No emergency exercises have been carried out since 1995.

The importance of well-functioning oil removing equipment can be underlined by the fact that until 1991, when all sweeping vessels were in operation, 2,000 tonnes of oil had been collected from the water surface in the port between the Sea Station and the Timber Terminal (appr. 2 nms) per year. Now the sweeping vessels collect about one ton per month.

#### Workers Safety - Occupational Health

The Environmental Department is also in charge of the safety of the workers in the port. There is only limited or no personal protection against dust.

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#### **Dangerous Cargo**

At present, only very few dangerous goods are handled in the port. A safety inspector is responsible for the safe handling of these goods. Goods are loaded and unloaded according to the Azerbaijan rules which have been taken over from the Soviet rules. They are similar to the international IMDG-Code.

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### 5.4 Ecology and Biotic Resources

#### Terrestrial Ecology:

The area of the multi-purpose terminal subject to the proposed rehabilitation project is completely covered by different kinds of surfacing and port structures. Between the multi-purpose terminal and the ferry terminal a considerable amount of trees is growing. They are of limited ecological value but might be useful as wind and dust preventing measures as well as sun protection for the workers during summer season.



- will have a common entrance gate system with container interchange and truck parking area
- will operate the container traffic jointly. Container yard activities and container stuffing/stripping activities will take place on the multi-purpose terminal.

The following Environmental Analysis concerns the multi-purpose terminal.

## 3. Operational Context

### 3.1 Purpose and Need

In order to secure sustainability of the efforts the EU is putting into the TRACECA programme, the EU expressed its attention to foster projects which eliminate physical bottlenecks or increase considerably the capacity of the TRACECA transport link. As the Port of Baku is one of the important parts of this transport link, several studies have been undertaken during the last years, aiming to arrange investments for the improvements of the port's infrastructures and operations.

Two studies aiming at the preparation of tender documents for improvement works are ongoing at the moment. These studies are financed by Tacis within the TRACECA programme:

- The redesign of the ferry terminals in Baku and Turkmenbashi
- The renovation of the multi-purpose terminal in Baku (as addendum to the ongoing management assistance and training project).

Both projects are treated separately in view of the Environmental Analysis.

## 3.2 Legal and Institutional Framework

#### 3.2.1 Governmental Institutions

The Ministry of Environment has the overall responsibility for the implementation of the environmental legislation in Azerbaijan. It consists of different committees dealing with different ecological aspects, like air, water, waste management etc.

Authorities and institutions in charge of ecological matters are:

- State Committee of Azerbaijan on Ecology and Nature Utilisation
- · Ecological Expertise Administration
- State Inspection of Caspian Sea Protection
- Caspian Marine Scientific Research Institute
- Hydrometeorlogical Institute
- · Academy of Sciences
- Caspian Agency
- Ecological Institute of the Azerbaijan Aerospace Agency



These institutes act independently but co-operation recently takes place. Most of these institutions are equipped with laboratories for various kinds of investigations and analysis. It has been decided that environmental policy shall be based on information from all institutes. As a first step a conference on the ecological state of the Caspian Sea was held by these institutes in 1994, during which it was agreed that all institutes dealing with environmental matters should be combined to a "State Ecological Monitoring", which is likely to be realised this year.

### 3.2.2 Non-Governmental Organisations

The following non-governmental organisations are active in the Republic of Azerbaijan:

- Environmental Society
- The Green Movement of Azerbaijan
- The Environmental Union of Azerbaijan
- The Green Party of Azerbaijan

At present, only the "Green Movement of Azerbaijan" is officially registered (since 1989).

#### 3.2.3 National Environmental Regulations

The legislation and regulations relevant to environmental aspects of the port project are the following:

- The Law on Nature Protection and Nature Utilisation in the Azerbaijan Republic 1992, which requires that the nature of the Azerbaijan Republic and its resources are obliged to be protected. This law is at present under revision.
- Environmental Analysis: Just recently, the Azerbaijan State Committee on Ecology and Control of Natural Resources Utilisation (ASCE) has worked out together with the UNDP an EIA directive and approved it on April 27, 1996. It provides specific regulations to ensure that all possible consequences of proposed activities are considered before the activities are started, with the aim to identify and to avoid or minimise negative impacts of any development proposal. This EIA directive is attached to this report as Annex 4.
- Public Participation "Scoping". According to the "EIA Handbook for Azerbaijan" public involvement is
  required in any EIA process. It must be made sure that the public is entirely informed about the proposed
  projects. A scoping meeting has to be convened which must be attended by experts and by representatives of groups (i.e. NGOs, community groups) that are considered to have a genuine interest in the proposed project.
- The National Ecological Plan of Actions (NEPA) has been developed by the ASCE with the participation of World Bank specialists as an instrument to combine the nature protection objectives with the economic and social development of the country.

#### 3.2.4 International Agreements

Up to now there does not exist any international law or convention for the protection of the Caspian Sea. The reason for this is said to be the fact that the Russian Federation and Iran wish to define the legal status of the Caspian Sea first.



At present, consultants from UNDP and representatives of the five states bordering the Caspian Sea are working out an international convention. The first meeting has been held in summer 1996 in Switzerland, the second on the 17th of September in Almati.

For the time being all coastal states are acting according to their own national legislation.

In 1995, the parliament of Azerbaijan ratified the framework convention of the UNO on Change of the Global Climate.

## Description of the Operation

The detailed plans for construction works are given in Vol. III of the report. The whole rehabilitation (ferry terminal and multi-purpose terminal) project comprises the following construction works creating possible negative or beneficial environmental impacts of which only the last three items directly concern the multi-purpose terminal:

- Construction of a new port entrance and access road
- Construction of a dangerous goods area with sealed floor and special drainage system
- Construction of new pavement and new roads
- Demolition of existing workshop buildings
- Demolition and reconstruction of sheds

## 5. Description of the Existing Environment

## 5.1 Surface and Groundwater Quality

According to the Law of Protection of the Environment of the Azerbaijan Republic from May 21, 1992 the discharge of any kind of waste into the Caspian Sea is strictly forbidden. But despite this requirement the port area as well as Baku Bay are subject to a number of sources of severe pollution.

The disastrous condition of Baku Bay is directly connected with the state of sewage economy and the absence of proper treatment of the drained urban waste water as well as of industrial sewage.

Industrial as well as urban effluent is discharged directly into the harbour. The quality of the discharge is not exactly known but according to estimations of the ASCE and "Bakusewerage" PC, in 1993 alone, 2,000 tonnes of oil products, 225,000 tonnes of dry sediment, 35,000 tonnes of sulphates, 56,000 tonnes of chlorides, 5 tons of phenol, 88 tons of iron and other polluting substances were discharged into the bay with the untreated drained water. The concentration of oil products in the drained water of oil refineries was exceeding the norm by 11 times, that of phenol by 6-8 times, and that of iron and copper by 3 times.

As a result Baku Bay, which is a natural shallow basin protected from the prevailing northern winds by the Apsheron peninsula, can be considered as biologically severely damaged, the harbour area even as dead. Samples of benthos taken by the Institute of Ecology, Azerbaijan National Aerospace Agency, have underlined this.



The most visible and possibly also most adverse form of pollution in the Port of Baku is oil pollution generated mainly by the off-shore oil drilling industry and drifting ashore in sometimes thick layers.

### 5.2 Municipal Waste Management

The garbage of the city of Baku is said to be collected daily and brought to a garbage dump near Balakhani where it is partly burnt and partly buried. Obviously, the collecting system can not cope with the amount of garbage produced by the city, parts of the coast line and the bay itself are used as dump sites for municipal waste, wastes are burnt in streets and parks.

### 5.3 Environmental Management in the Port of Baku

The Environmental Law of the Republic of Azerbaijan states that all bigger enterprises and governmental organisations must have an Ecological Department. In the Port of Baku this department is at present occupied by the Deputy Chief Engineer of the port. In former (Soviet) times, a similar department in the port consisted of 5 - 6 people, the same number of members one considers for the future. The duties of this department include all aspects of ecological concern, like:

#### Waste reception from ships

Since the Law of Protection of the Environment of the Azerbaijan Republic strictly forbids dumping any kind of waste into the Caspian Sea, all ships calling at the Port of Baku have to give their waste ashore (oily waste as: bilge water, oily ballast water, fuel residues, but also ship's sewage and solid waste).

Oily waste is collected from the ships by two barges, one of which is presently not in operation, and taken to a refinery for further treatment.

Sewage is said to be collected in a tank at the ferry terminal and added to the municipal sewage system and in a tank for waste water at the Sea Station (passenger terminal). Another sewage water tank at the timber terminal is out of order due to the sea level rise.

Solid waste and garbage is collected at the Sea Station and the ferry terminal and as well added to the municipal waste.

#### **Documentation**

The vessels receive an "Akt" (a receipt) stating the exact amount of the disposed waste. The vessels also have to keep two different record books, one for garbage and sewage, one for oily waste. Two different types of oil record books exist, one for oil tankers and one for other vessels. They are printed in Russian and English language and are similar to the oil record books according to the international MARPOL-Convention.

The discharge of waste is not free of charge for the vessels. In former times it was 8 Ruble per ton for Soviet ships, 20 Rubles for foreign vessels. The prices are now flexible, following the inflation rate. No exact amount could be given.

#### Inspection and Control

The record books as well as the machinery space and the tanks are said to be checked regularly. The Ecological Department of the port checks the port owned vessels, other vessels are controlled by the State Inspection of Caspian Sea Protection. The water in and around the port between the ships laying at anchor is visually controlled by the pilots.



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#### Aquatic ecology:

The shoreline and water surface are heavily polluted by oil, the water quality is severely impacted as stated in 5.1.

No resources of any ecological value can be observed in the port area. According to investigations of the Institute of Ecology, Azerbaijan National Aerospace Agency, the direct vicinity of the terminal can be considered as biologically dead. Within the Baku Bay a very reduced density of benthic fauna can be found at an extremely low species diversity consisting mainly of *Nereis sp*.

Commercial fishing does not take place in Baku Bay. Anglers can be observed near the port area, according to information of nearly all institutions the fish of the area is not suitable for human consumption.

### 5.5 Air Quality

Despite the windy conditions in Baku the air is heavily polluted. Especially in the colder season the city is subject to smog conditions. Main source of pollution are industrial as well as traffic exhausts. A big contribution to air pollution are the numerous fires of burning wastes in the streets.

#### 5.6 Noise

The considerable noise level in the city of Baku is mainly created by the traffic, especially by public busses with old diesel engines, but also by the habit of the car drivers to blow the horn on any occasion.

#### 5.7 Socio-economic and Cultural Issues

The port is located near to the city centre. At present, the turn-over of cargo is very low. The preliminary results of the traffic and cargo forecasts indicate that an increase of cargo turn-over to former (Soviet) figures will not happen. The port area is limited, but sufficient space is available to handle the predicted traffic and cargo.

Therefore the rehabilitation project does not include any extension of the port area and no adverse effects in the sense of relocation etc. are expected.

The official unemployment rate in Azerbaijan is 1 %, according to unofficial estimations it is much higher (10 %, EBRD Country Profile). Considering the high number of "underemployed" people, e.g. people running small private business like selling sunflower seeds or newspapers, and also considering the overstaffed port, a beneficial impact on the population of Baku during construction phase and operational phase is expected by offering temporary and permanent employment.

#### 5.8 Land Use and Settlement Patterns

More than 30 % of the population and 50 % of the industrial potential of Azerbaijan are concentrated in the city area of Baku. The industrial enterprises are in general old and far from state of the art like the Baku Refinery, which is said to be the biggest refinery of Azerbaijan and which is in parts nearly 100 years old.



## Description and Assessment of the Significant Environmental Impacts of the Proposed Operations. The Local, Regional and Global Levels

### 6.1 Impacts Associated with Construction

#### 6.1.1 Water Quality

Since the rehabilitation of the multi-purpose terminal does not include any construction on the water side (dredging or reclamation) no significant impacts on the water quality are expected. Any kind of dredging activities or movement of the substrate should be avoided to prevent the polluted sediment from re-suspension i.e. re-mobilisation of the pollutants - in the water. Due to the low siltation rate in the port and the risen sea level no dredging operations seem to be necessary so far.

If pile driving or the construction of a new quay wall should become necessary, adequate methods have to be selected. These activities might cause localised damage to the substrate, but the area that will be affected will be small. Since the marine life has more or less been destroyed by severe pollution, no impact on any aquatic resource in the direct vicinity of the terminal is expected.

#### 6.1.2 Air Quality and Noise

During the construction phase no impact on the air quality is expected.

Noise will be generated at a relatively low magnitude compared to the noise level of the city itself. However, this effect is not considered to be significant since it is of short term and temporary.

#### 6.1.3 Re-use of Existing Facilities and Materials

During all reconstruction activities the aim should be to avoid as much construction-generated wastes as possible. Therefore all possibilities should be considered to re-use the existing structures and materials.

#### **Sheds**

According to the present plan at least one of the two sheds on the multi-purpose terminal (sheds no. 4 and no. 5, see phase I report vol. IV, fig. 4.2) has to be removed to create space for the container terminal. For the case that during the removal of the sheds critical materials should be found which are posing risk for the workers or for the environment (i.e. asbestos, harmful insulation material), all necessary precautions have to be taken in order to comply with the national legislation.

The sheds no. 4 and no. 5 are pre-fabricated metal sheds. They need some maintenance but the general condition of the sheds is good and allows a reconstruction on another place. In this case the generation of construction waste can be considered as negligible.



#### Workshops

At present the workshops are installed in several decentralised buildings. Most of these workshops are in a poor condition, some have been closed down temporarily in the past because of bad working conditions. Only limited measures for environmental protection or occupational health are taken.

These workshops should be substituted by a centralised workshop complex equipped with precautionary measures as sealed floors, drainage systems with water collection basin as well as an oil-water separator. The present workshops are mainly stone buildings. By reconstructing them these stones could be used as filling material for the reclaimed area or for other construction works.

#### **Terminal Surface**

The surface of the terminal is as described in Vol. IV. A complete new pavement has to be installed. This use of the old surface material as filling material for the reclamation area depends on the degree of pollution of the ground. Dangerous cargo has been handled on this terminal and spills have been recorded (oral: Ecological Department, Port of Baku). Since these dangerous goods have mainly been acids which in general do not belong to materials being persistent in the environment no pollution should be expected by using parts of the old terminal surface as filling material for constructional works. A list of the dangerous goods handled on this terminal as well as a record of spillage will be worked out by the Planning Department.

### 6.2 Impacts Associated with Operation

#### 6.2.1 Water Quality

The rehabilitation plan includes the construction of a new pavement. At present the floor is uneven and broken which makes it very difficult to clean any accidental spill. Improving the pavement of the terminal provides a significant environmental benefit, because it reduces the risk of a run-off of any harmful substance into the water in case of spillage.

As stated in Phase III Report Vol. IV (Civil Engineering Assessment) the direct run-off of rainwater from the terminal into the harbour basin has to be avoided in order to minimise the risk of water pollution in the case of spillage. Therefore a drainage system will be included in the new pavement which is equipped with sand traps for solid material and skimmers for floating solids and liquids (hydrocarbons) at each of the outlets into the sea.

With regard to the handling of containerised dangerous cargo, it is necessary that the outlets of the drainage system can be closed in case of a leakage. Other operational means should also be available, e.g. a mobile trailer with a collecting basin big enough to contain the volume of a full tank container.

The expected increase of ships traffic may contain the risk of possible discharges from ships (bilge water, ballast water, oily wastes, sewage, garbage) as a source of water pollution. The provision of reception facilities is said to be given in the Port of Baku (see 3.3). The strict control of the regulations of ship discharges is indispensable to avoid adverse impacts. Since accidental spills are unavoidable, equipment for the removal of oil and other pollutants (recovery vessels, oil booms and skimmers) has to be on stand by. The impact of the infloating oil generated by the offshore oil drilling industry is obviously much higher than possible discharges from ships. The recovery vessels and skimming systems should be used for regular clean-up of the coastline. Of course, this is no solution to the problem itself, but it will be a contribution to the improvement of the water quality of the port and the bay.



Adverse impacts in the operational phase may result from cargo handling. The main cargoes expected to be handled on the multi purpose terminal will be cotton, building materials, chemicals, containerised cargo (consumer goods and food), equipment for the oil and gas exploiting industry, metals and fertiliser. Of these cargoes mainly chemicals and fertiliser are of environmental concern, when handled inappropriately.

#### 6.2.2 Air Quality and Noise

During the operational phase no significant impact on the air quality is expected, even if the flow of cargo increases significantly. The on- transportation of transit cargo will be mainly by train, i.e. a means of transportation with a low emission rate, and to a lesser extend by trucks. Future truck traffic will enter and leave the port via a new gate which will be in a considerable distance to the city centre and directly connected to the main exit road of Baku.

The handling and storage of bulk might be resulting in air pollution depending on the dust generating properties of the materials as well as the chosen methods of handling these goods. Dust emitting materials requires applied technical measures as sprinkling devices, spraying vehicles, sheds to protect these goods from the wind, etc.

#### 6.2.3 Local Traffic and Access Impact

The throughput of containers via the container yard is expected to rise significantly.

According to the "most likely" scenario as it is described in Vol. II of the Phase II report (Traffic Forecast and Economic Assessment) the import of cargo to Azerbaijan is gong to increase to

- 17,083 TEU by the year 2000 and to
- 32,832 TEU in 2010.

The figures for export cargoes are

- 12,083 TEU for 2000 and
- 23,878 TEU in the year 2010 respectively.

Assuming that the distribution of imported containers from the container yard, and the delivery of export cargo to the container yard will be by trucks carrying one 20-foot-container exclusively, the truck traffic for imported cargo will increase by

- 3.2 trucks per hour in 2000 and by
- 6 trucks per hour in the year 2010.

The increase of truck traffic for export goods will be

- 2.2 trucks per hour in the year 2000 and
- 4.4 trucks per hour in 2010.



These figures indicate that the vehicular traffic associated with container yard activities will not cause a considerable increase of the local traffic. However, these estimated figures of increased truck traffic as stated above should be considered as a "worst case scenario", they are by far too high. The realistic numbers will be much lower because:

- a) a number of trucks will be able to carry two 20-foot-containers
- b) a considerable amount of the import and export cargo will be transported by rail as well
- c) the amount of 40 foot-containers will increase to 50 % until the year 2010
- d) the calculations above are conservative estimations since they are based on 300 working days per year and 18 working hours per day, whereas the port is working 365 days per year and 24 hours per day.

#### 6.2.4 Auxiliary Services

If a container cleaning and repair workshop should be planned for the future environmental precautions should be taken into consideration as water-circulation and re-use system, oil-water separator.

#### 6.2.5 Reception Facilities

All wastes from ships are said to be received by the port. At present used oil and oily wastes are delivered by barges to the nearby oil refinery for further treatment. Considering the limited space conditions within the port which make it difficult to plan a reception facility there, this practice could be continued in future. With regard to an environmental improvement it must be assumed, however, that the oil contents of the effluent of the refinery complies with the national environmental standards.

Within the planning of the terminal sufficient space for containers for the collection of solid wastes has to be considered. The type of container should be selected in accordance with the municipal refuse disposal.

The disposal of sewage from ships has also been discussed in the phase I report of this project. The public sewage system of Baku is absolutely insufficient and the major source of pollution of the marine environment. Upgrading its sewage system should be of highest priority for Baku but this problem is - of course - beyond the scope of the port rehabilitation project.

#### 6.2.6 Safety Aspects

The beneficial impacts of the port rehabilitation project - ferry terminal as well as multi-purpose terminal - concerning safety aspects are the following:

- A special area for dangerous goods will be established equipped with a sealed and sloped floor to retain the contents of a container in case of any damage.
- Traffic regulations on both terminals and the separation of trucks and passenger traffic on the ferry terminal will significantly improve the safety within the port.



#### 6.2.7 Visual Impacts

During the rehabilitation works the cutting of trees can not be avoided. Areas for the re-plantation of trees have been discussed with the Ecological Department and will be selected in accordance with the final engineering design. These compensation measures will keep the visual impacts as low as possible.

### 6.2.8 Workplace Quality

The port rehabilitation project will significantly improve the quality of many work places in the port. As described above especially the new workshops will provide working conditions according to the standards of safety and occupational health.

## 6.3 Impacts Associated with Closure and Decommissioning

No impacts are to be expected.

## 6.4 Identification of Key Uncertainties and Data Gaps

This project is comparatively small and comprehensive. Therefore uncertainties are not expected.

## 7. Measures to Enhance Environmental Benefits

As described already in chapter 6.2.1 the port area is heavily polluted by oil. The biggest part of this is generated offshore, spilled oil is floating into the Baku Bay from the oil drilling fields. But also illegal dumping of oily wastes from vessels has been observed.

A list of the oil pollution abatement equipment of the port has been worked out by the Ecological Department of the port and is attached to this report as Annex 5.

#### Oil Booms

The oil booms in the port are old and worn out and urgently need to be replaced by new sets of booms.

A sufficient length of oil booms is a basic requirement for every port. The ship traffic in confined waters, bunkering operations, discharging and disposal processes contain a high risk of accidents and accidental oil spills which require immediate response. First measure at hand is to prevent the oil from spreading which can only be done with the use of oil booms.

Oil booms are also necessary for the protection of certain areas. Floating oil does not only severely impact the natural environment, but also the industry in a spill-impacted area can be impaired or damaged by oil. Factories which rely on coastal water for cooling processes are at risk to contaminate their cooling system by intake of oil. Thereby, production may be limited or entirely interrupted. Port traffic is affected negatively, too.



In case of an oil spill in the port the traffic and all activities within the port may need to be restricted or prohibited until the spill is recovered.

Experience from different international ports shows that Baku is well advised with an oil boom of 1,000 m length. The total height of the boom of 60 cm would be sufficient within the port area, for oil spill response outside the port, however, a bigger type is required.

There are no technical data available for a boom of type "Anakonda" which was mentioned by the ecological department of the Port of Baku. The technical specifications of two common types of harbour booms ("Type 600 s", 60 cm height and "Type 900 s", 90 cm height) are enclosed in annex 7.

#### Oil Skimming Vessels

The port owns four oil skimming vessels ("NMS 16", "NMS 21", "NMS 26" and "NMS 73"), of which two are in working condition. The other two vessels are partly demolished on shore. Considering the degree of corrosion of these vessels it is questionable whether it is worthwhile to repair them. The costs of a new vessel of this specialised sweeping craft are (in Germany): US\$ 1.25 million.

As stated in chapter 5.3 of this report these vessels are of great importance to keep the water surface clean. Since the major part of oil pollution is not generated by the port but by the offshore and refinery industry it should be considered to oblige these two in supporting the port to be provided with oil skimming vessels.

#### Oil Barges

There is an oil barge available in the Port of Baku (MV "KUR", see Phase III report, Vol. 3) for storage and transportation of the recovered oil-water mixture as well as for the reception of waste oil from the vessels. This barge has been inspected and was found to be in a comparatively good condition. So there is no immediate need of repairs.

The on-board storage capacity of this barge is 430 tons. A second barge of the same type is in existence (MV "SHAFAG"). However, this barge was out of the port and therefore could not be inspected.

#### **Gas Analysers**

For the safety of the oil spill abatement group each vessel should be equipped with portable gas analysers ("EX-TOX"). Four analysers should be available. Estimated costs: US\$ 1,200 per analyser.

#### **Exercises**

To become proficient in the deployment and operation of particular types of equipment or in the execution of a particular clean-up technique regular "hands-on" exercises are necessary. As a minimum, these exercises should be executed four times per year so that operating difficulties under different seasonal conditions can be identified.

#### Training on Management of Oil Spill Clean-up

The port wishes to send specialists to Europe for training. This training should be concerned with the various levels of management of contingency arrangements and clean-up operations and provide a thorough background in the subject, upon which response decisions can be made.



The duration of such a training course should not be less than three weeks to ensure that the participants receive a broad knowledge of the following topics:

- · Prevention of oil spills in ports and terminals
- Recovery devices (including practical training, equipment maintenance and storage)
- · Port and terminal contingency planning
- · Clean-up operations
- Opportunity for question and answer sessions with experts

Estimated costs for such a training:

ECU 75,000,--

#### **Laboratory Equipment:**

The Ecological Department of the Port wishes to establish a laboratory. For the time being this does not seem to be an actual need. Considering the number of institutions in Baku being equipped with laboratories for various kinds of investigations and analysis (see chapter 3.2.1) a co-operation with these institutions should be advised.



## **Annexes**



#### **List of Annexes**

Annex 1: Scoping Meeting

Protocol and Documentation

Annex 2: Record of Meetings and Consultations

Annex 3: EBRD "Environmental Procedures"

Annex 4: UNDP "Handbook for the Environmental Analysis Process in Azerbaijan

Annex 5: Environmental Protection Equipment Available in Baku Port

Annex 6: Legislation of the Republic of Azerbaijan; Article 17: Labour Safety

Annex 7: Technical Specifications of Oil Booms

## Annex 1

# **Scoping Meeting**

- Protocol -
  - +
- Documentation -

#### Annex 1

#### Protocol of the "Scoping"-Meeting

#### 1. General

In order to identify the key issues which need to be addressed by the Environmental Impact Assessment, a "scoping"-meeting has been held on September 18, 1996 in the office building of the EBRD in Baku.

The meeting was conducted according to the "Metaplan" Method, which facilitates the aim-orientated discussion and ensures that all ideas and experiences contributed by the participants during the discussion are considered since they are given in a written form.

#### 2. Participants

The representatives of the following authorities and relevant agencies have participated:

	Name	Institution, Position
-	Mamedov Ramiz	Insititue of Geography, Deputy Director of Science
-	Seidov Mirabbas	Water Farm, Head of Hydrotechnical Equipment Laboratory
-	Agadjanli Akif Raily	way, Chief Ecologist
-	Seiran Veliev	Green Movement of Azerbaijan
-	Muradov Rauf Ecol	ogical Expertise Administration State Committee of Ecology, Head of Department
-	Tagiev Babek	Deputy Chief Engineer Head of Ecological Department, Port of Baku
-	Shakhabuddin Albushev	State Inspection of Caspian Sea Protection
-	Maustafayev Farmaz	Caspian Marine Scientific Research Insitute
-	Lars Raunholt	Rambøll, TACIS Port Project, Port/Marine Engineer
-	Wolfhard Arit	HPTI, TACIS Port Project, Project Director
-	Tatiana Eggert HPT	I, TACIS Port Project, Environmental Expert
-	William V. Kennedy	EBRD, Senior Environmental Specialist

#### 3. Discussion and Results

The scoping meeting started with an introduction of the two projects - the rehabilitation of the ferry terminal and the rehabilitation of the multi purpose terminal - to all participants, given by Dr. Kennedy, EBRD.

The "Metaplan"- Method, i.e. the vizualisation technique of the discussion, has been explained by Mr. Arlt, HPTI.

During the scoping meeting a list of major concerns has been provided which should be incorporated into the guidelines for the preparation of the Environmental Impact Assessment. The key impacts to be

considered were the following:

#### 3.1 Aquatic Impacts

The main ecological concerns associated with the project were related to possible negative aquatic impacts that are likely to occur during dredging operations. The highly contaminated sea floor was considered to be the main source of water pollution within the construction period. It was discussed that the sediments have to be analysed first, appropriate dredging technologies are to be identified and environmentally sound means to dispose and/or re-cycle the dredged spoil have to be found.

#### 3.2 Waste Management

Furthermore, a discussion took place on how to handle the port's waste. The management of waste (bilge water, sewage and garbage) generated by ships and during port operation is a problem which has not been solved for the time being.

#### 3.3 Location of the Port

Alternatives to the present location of the port have been considered. Arguments were expressed and discussion took place wheter the plan to reconstruct the two terminals should be substituted by building a complete new port outside the town of Baku. Since such a plan is not realistic for the time being, due to financial reasons and also due to the fact that the present port area is sufficient to cope with expected future ships traffic, it was agreed that during construction and operational phase special attention should be drawn the close vicinity of the town.

#### 4. Concluding Remarks

- The participants of the meeting confirmed a co-operation in the project.
- It was agreed that similar meetings should be held in the future to discuss the progress of the project.

Hamburg, October 1996 Tatiana Eggert

## Annex 2

#### Meetings held

#### Monday, 09.09.96

- Arrival

#### Tuesday, 10.09.96

- Meeting with Mr. Aydin Mamedov, General Director of the Baku International Harbour

#### Wednesday, 11.09.96

- Information tour in the Port of Baku
   Accompanied by Mr. Adishirin, Chief of the Hydrotechnic and Engineering Department, and Mr.
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#### Thursday, 12.09.96

- Meeting with Mr. Albushow Shakhabuddin, Head of the State Inspection of the Caspian Sea
- Meeting with Ms. Bagirowa, Chief Engineer, and Mr. Mustafayev Parviz, Chief of the Caspian Marine Scientific Research Institute
- Meeting with Mr. Muradow Rauf, Chief of the Ecological Expertise Administration

#### Friday, 13.09.96

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- Meeting with Mr. Rufat Imamverdiyev, EBRD

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   Utilization, and Mr. Muradow Rauf, Ms. Bagirova Khabiba, Ecological Expertise Administration

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Meeting with Dr. Kennedy, EBRD

#### Saturday, 21.09.1996

- Meeting with Rambøll

#### Wednesday, 25.09.1996

- Meeting with Mr. Seiran Veliyev, Mr. Ismail Naftaliev, Azerbaijan Green Movement
- Meeting with Dr. Fuad M. Hadjizade, Director, Azerbaijan National Aerospace Agency, Institute of Ecology

#### Thursday, 26.09.1996

- Meeting with Dr. Fuad M. Hadjizade, Director, and Mr. Pavel Joulia, Director of the Ecology Centre, Azerbaijan National Aerospace Agency, Institute of Ecology

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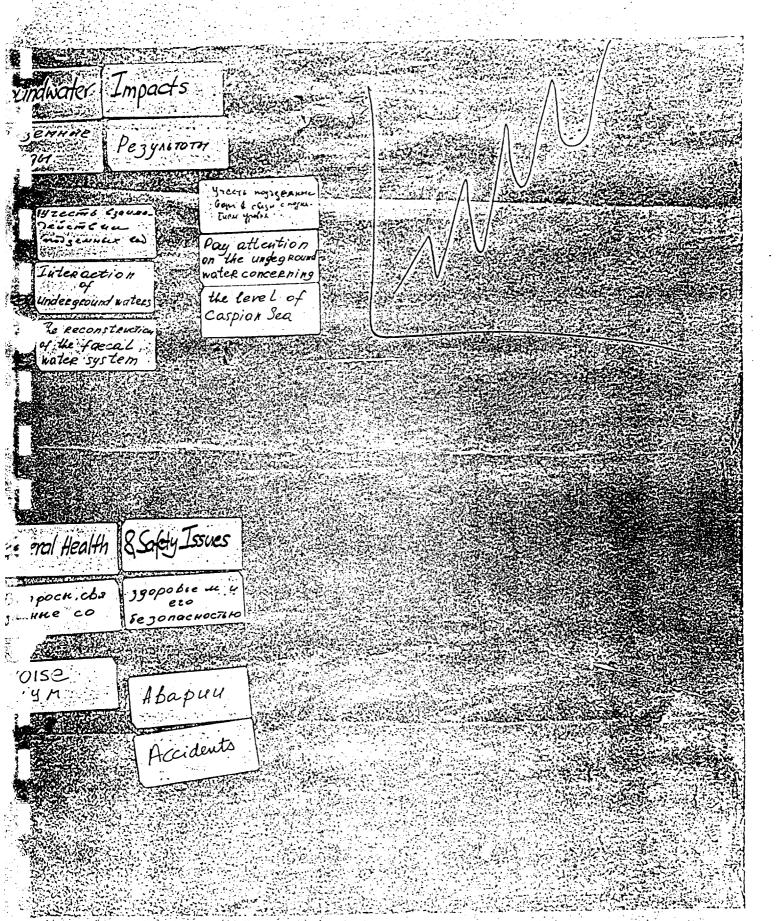
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# Annex 2

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Meeting with Dr. Fuad M. Hadjizade, Director, and Mr. Pavel Joulia, Director of the Ecology Centre,
 Azerbaijan National Aerospace Agency, Institute of Ecology

# Friday, 27.09.1996

Departure

# Monday, 04.11.96

Arrival

# Tuesday, 05.11.96

- Meeting with Mr. Sultan, Port Chief Engineer, Deputy Director of the Baku International Seaport

# Wednesday, 06.11.96

- Port of Baku main port and ferry terminal
   Accompanied by the Deputy Ferry Terminal Manager
- Meeting with Mr. Babek Tagiev, Deputy Chief Engineer, Head of the Ecology Department, Port of Baku

### Friday, 08.11.96

Meeting with Lars Raunholt, Ramboll

### Saturday, 09.11.96

 Meeting with Mr. Babek Tagiev, Deputy Chief Engineer, Head of the Ecology Department, Port of Baku

# Thursday, 14.11.96

- Meeting with Mr. Babek Tagiev, Deputy Chief Engineer, Head of the Ecology Department, Port of Baku

# Annex 3 EBRD "Environmental Procedures"

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Sidov Meabbas	Hydrotecnical Institute	Mamedov Ramiz		
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Mustafaer. E-Rmaz	Director Of Casmorproject	KENNEDY	EBRD	
Livrouggen	Нагаления инспекции поскаспохрежа	Ларс Рачихольт		
bushov	The chief of the inspection	LARS RAUNHOLT	RAMBOLL (TACIS)	TACUC
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# EBRD Environmenta Chocolumes Effective: Nov. 1, 1996

# ENVIRONMENTAL PROCEDURES

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# EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT

# **ENVIRONMENTAL PROCEDURES**

#### A. INTRODUCTION

The European Bank is directed by its founding agreement to "promote in the full range of its activities environmentally sound and sustainable development". The various ways in which the Bank promotes such development are described in the Bank's Environmental Policy document which is attached to these Procedures. One specific step taken by the Bank to address this mandate and the General Principles and Objectives set out in the Policy is to ensure that all of its investment and technical cooperation activities undergo environmental appraisal as part of the overall financial, economic, legal and technical due diligence which is carried out.

These Procedures address the environmental appraisal process.

The Procedures have two basic aims. The first is to ensure that the environmental implications of the Bank's activities are taken into account early on in the planning and decision-making process and are properly reflected in the preparation, approval and implementation of loans, equity and other types of financing. This means, in essence, taking steps to ensure that the environmental and health and safety impacts which may be associated with operations are appraised alongside the economic benefits. The second aim is to identify ways in which the Bank's investments can be enhanced through the provision of environmental benefits or improvements.

The following Sections outline the purpose and nature of environmental appraisal; the division of staff responsibilities for environmental appraisal within the Bank; the types of environmental investigations and requirements associated with the appraisal process and, finally, a description of the way in which environmental appraisal is incorporated within the Bank's operation cycle, starting with the identification phase through to post-evaluation. Annexes providing more detailed information on a number of aspects of the environmental appraisal process are attached to these Procedures.

These Environmental Procedures are addressed to Bank staff and are to be followed by them. Guidance to Project Sponsors on how to address the Bank's environmental requirements have been prepared and are available from the Bank.

# B. THE PURPOSE AND NATURE OF ENVIRONMENTAL APPRAISAL

EBRD operations undergo environmental appraisal both to help the Bank decide if an activity should be financed and, if so, the way in which environmental issues should be incorporated in operation financing, planning and implementation. An overall objective of environmental appraisal is to improve decision-making. It is important therefore that it is initiated at an early stage. Early identification and resolution of environmental issues can avoid the costs and delays in implementation caused by unanticipated environmental problems. Environmental appraisal is also carried out to identify ways in which operations can be designed, financed and implemented to provide environmental benefits and improve environmental quality.

A starting point for environmental appraisal is the identification of the environmental laws and regulations that apply to the proposed operation. The Bank's *Environmental Procedures* are not a substitute or replacement for those requirements. International agreements such as the "Convention on Environmental Impact Assessment in a Transboundary Context" (the Espoo Convention) must also be respected. National and local requirements related to environmental impact assessment, environmental auditing, land use planning, pollution control, health and safety, and public consultation will always need to be met as described in Annexes to this document.

The early appraisal of environmental issues is important in assessing and mitigating the financial risks of an operation. Failure to take sufficient account of the costs of on-going compliance with applicable environmental legislation and standards may significantly increase overall operation costs, both in terms of capital expenditure for investments needed to achieve compliance, as well as enforcement measures in case of non-compliance, e.g. increased charges, fines or even the closure of the operation by environmental authorities. There may be an additional financial risk resulting from legal uncertainties in connection with liabilities for historical pollution whether or not these were caused by the enterprise itself. At the same time, the early incorporation of environmental enhancement measures into the operation design is likely to improve the overall efficiency of an enterprise and thus increase its medium to long term profitability.

As with economic, financial and technical appraisal, environmental appraisal is, essentially, the responsibility of the Project Sponsor. The Bank's role, as outlined below, is to determine the type of appraisal needed, to provide guidance on how it should be conducted, to review the results, and to ensure that findings are properly reflected in operation financing and implementation.

# C. ROLES AND RESPONSIBILITIES

The three most significant roles in the environmental appraisal process are those of the Project Sponsor, the Operation Leader (OL) and the environmental specialists of the Bank's Environmental Appraisal Unit (EAU). As operations progress, other Bank groups such as the Office of the General Counsel (OGC), the Operations Administration Unit (OAU) and the Project Evaluation Vice-Presidency also have a role to play. The responsibilities of each of these in environmental appraisal can be described as follows:

- The Project Sponsor's responsibility is to provide sufficient environmental information to the Bank to enable its Board of Directors to make a decision. EAU may assist the Sponsor by setting Terms of Reference for investigations and in identifying specialists who can help assemble or assess this information. It is the responsibility of the Project Sponsor, however, to commission or conduct all necessary environmental investigations satisfactory to the Bank. Following Board approval, it is the responsibility of the Project Sponsor to ensure that agreed environmental requirements are met.
- The Operation Leader has the overall responsibility, on behalf of the Bank, for the environmental aspects of the operation. This includes the responsibility to establish communication channels between the Project Sponsor and EAU; to relay the Bank's requirements to the Project Sponsor; and to obtain environmental information in sufficient time for the material to be reviewed by EAU and to incorporate the findings in the financial and economic analysis, where appropriate, prior to each stage of the Bank's decision-making process. EAU will assist OLs in preparing terms of reference for environmental studies, such as assessments and audits. It is the OL's responsibility to agree the environmental wording of the final Board document with EAU. It is the OL's responsibility, together with OGC, to incorporate environmental requirements agreed with EAU in legal agreements, and to monitor their implementation during the involvement of the Bank in the operation.
- The Environmental Appraisal Unit's initial responsibility is to review any preliminary environmental information about an operation and identify potential environmental concerns and opportunities typically associated with such operations prior to Initial Review by the Bank's Operations Committee (OpsCom). EAU then prepares an Environmental Screening Memorandum (ESM) for the OL and OpsCom which details environmental concerns and opportunities and the nature of the environmental investigations that will need to be completed prior to Final Review. It also brings any significant concerns immediately apparent to OpsCom's attention.

Following Initial Review, EAU assists the OL in drafting Terms of Reference for any environmental investigations required; participates in the selection of environmental consultants and liaises with the Sponsors and the consultants, as necessary, during the conduct of the investigations. It is then EAU's responsibility to review the results of the environmental investigations, including public consultation, and to prepare an Environmental Review Memorandum (ERM) for the OL and OpsCom prior to OpsCom Final Review. The ERM details the environmental control and enhancement measures incorporated in the operation; draws attention to any environmental information still required and highlights any outstanding environmental issues needing resolution. EAU then agrees on the environmental wording of the final Board document with the OL. EAU will assist the OL and OAU during the monitoring of the operation. EAU will support the Bank's Project Evaluation Vice Presidency in evaluating the operation's environmental performance.

• The Office of the General Counsel's responsibility, together with the OL, is to incorporate environmental requirements agreed with EAU, in legal documentation.

To the extent necessary, OGC advises on the legal aspects of regulatory compliance and local and international environmental laws and agreements.

- The Operation Administration Unit has a control responsibility in respect of the monitoring of covenants in legal documentation (though overall responsibility remains with the OL). This includes the monitoring of environmental covenants in cooperation with EAU and the OL, both of whom are required to confirm fulfilment of each environmental covenant.
- The **Project Evaluation Vice Presidency's** responsibility, with support from EAU, is to incorporate an environmental review component within an operation's overall evaluation.
- The Environmental Advisory Council (ENVAC), while not involved in the environmental appraisal process on individual operations, may provide guidance to the Bank on the process per se and the implementation of the Environmental Procedures. ENVAC's views my be sought on operation specific issues related to the Bank's financing.

# D. TYPES OF ENVIRONMENTAL APPRAISAL WORK

Environmental investigations are undertaken or commissioned by Project Sponsors to provide environmental information satisfactory to the Bank. The main types of environmental investigations carried out on Bank operations are environmental impact assessments, environmental analyses, and environmental audits. Many operations will require a combination of an environmental audit together with an environmental impact assessment or an environmental analysis. Environmental investigations address not only impacts on the physical environment but health and safety and socio-economic impacts as well. Where the Bank's operation involves intermediated financing there are special information requirements (see Section D2). The specific types of environmental appraisal work which may be required by the Bank can be defined as follows:

# 1. Environmental Appraisal related to Direct Investments

# a. Environmental Impact Assessment (EIA)

An EIA is carried out to identify, predict and assess the future environmental impacts associated with a particular operation where the impacts are potentially significant and cannot be readily identified, assessed or mitigated. The detail and scope of an EIA depend upon the likely types and extent of an operation's environmental effects and the sensitivity of the locations affected. These are usually determined through scoping. Scoping is a process to identify the important issues and alternatives which should be examined in an environmental impact assessment. More detailed information on how the scope of an EIA is determined is provided in Annex A. Certain types of greenfield, major expansion, or transformation-conversion operations (see Annex D) will be subject to an EIA, regardless of their location, due to their environmental significance. Additional types of operation, which might affect environmentally protected or sensitive areas (such as national parks and nature reserves), may also be subject to an EIA.

An EIA should include the elements set out as Annex B. Where appropriate, environmental impact assessments should include an analysis of environmental costs.

In addition to EIAs on specific operations, the Bank may also carry out strategic environmental assessments. The term "strategic environmental assessment" (SEA) is used to describe the process of evaluating the likely environmental consequences of a proposed plan or programme which has the potential to significantly affect the environment, before it is approved. The plan or programme may be related to an economic sector such as transport, energy, forestry, fisheries, etc. or it might be related to a geographical area or region. The main benefits of SEA is that it allows for a consideration of more far-ranging and cumulative impacts and broader types of alternatives than that provided by a project-specific EIA. In addition, it can help facilitate consultations between authorities and the public by identifying issues, initiating baseline data collection and developing action programmes where a number of specific development activities are proposed in a relatively localised geographical area or in the same sector. SEAs can facilitate the preparation of project-specific EIAs at later stages of development.

SEAs will be carried out as the need for them arises. There may be a role for SEAs in connection with the revisions of existing sectoral policies prior to their approval by the Board. It may also be appropriate to conduct an SEA related to an economic sector in a particular country where long-term development programmes are still being considered by national authorities. The SEA can clarify environmental issues associated with the programme prior to the identification of specific investment operations to be considered by the Bank. SEAs can be financed through technical cooperation funds.

# b. Environmental Analysis

An Environmental Analysis is carried out on operations or activities where any future environmental impacts are potentially significant but where, because of their nature, size and location, they can be readily identified, assessed and mitigated. The content of an environmental analysis is similar to that for an EIA although the scope of environmental analysis is usually more limited.

#### c. Environmental Audit

The typical environmental due diligence requirement for operations that involve existing or past activities is the environmental audit. An environmental audit identifies past or present concerns and potential environmental and health and safety risks and liabilities associated with the operation. It may also help to establish the baseline conditions for agreeing on responsibility for environmental damage, or to value immovable assets which the Bank considers taking as security. Audits can encompass one or more phases depending on the extent of environmental concerns associated with the operation. An audit covers the environmental condition of the site, operations and related facilities, together with current and pending

environmental regulations that apply to the operation. It documents the environmental degradation and existing impacts (on-site and off-site), observations or records of environmental damage, adequacy of pollution control measures, regulatory compliance record, and opportunities for environmental improvements, such as energy efficiency, waste reduction or improved management practices. If the need for additional information or studies is identified, further investigations may be required, such as soil and groundwater testing, or hazard analysis. Audits are usually conducted by an independent third party, such as an environmental consulting firm, to maintain objectivity.

A generic environmental audit protocol for manufacturing facilities and specific questionnaires for various sectors have been developed by the Bank. For particular industries, such as chemicals or petroleum production, the audit protocol must be adapted to include industry-specific issues. A sample report format for environmental audits is included as Annex C.

# d. Initial Environmental Examination (IEE)

At the time that EAU prepares an ESM, sufficient information may well be available about an operation and its location for the environmental investigations that are required to be elaborated in detail. However, sometimes, preliminary information is insufficient, in which case an Initial Environmental Examination (IEE) will be required following Initial Review.

An IEE normally requires a site visit and discussions with the operators of any existing facility, with environmental regulators and with the locally affected population and local interest groups.

The IEE, will establish whether an Environmental Impact Assessment or an Environmental Analysis is required. When an IEE is required at Initial Review, the formal screening category will be assigned in a revised ESM.

# e. Environmental Action Plan (EAP)

An EAP is prepared as the result of the environmental investigations and is developed by the Project Sponsor. Its purpose is to obtain an agreement concerning key environmental, health and safety performance criteria, corrective actions and improvement programmes, and to define monitoring and reporting requirements. Normally, the EAP will form a part of the legal documents of the Bank's investment.

The EAP will document the key issues, the actions to be taken to adequately address them, the implementation schedule and an estimate of the associated costs. Some actions may be needed urgently, particularly when there is significant health and safety risk, or non-compliance with regulatory requirements and permits. The EAP typically addresses issues requiring a long-term or phased approach, such as compliance with expected future regulatory requirements, including compatibility with EU or other international legal requirements, standards and practices. The EAP may also

address opportunities to further improve the environmental performance of the operation and the costs of doing so.

Where current operations are not in compliance with regulatory requirements and existing permits, the EAP, and the proposed actions and schedules for these areas of non-compliance, should be reviewed and agreed by the competent environmental, health and safety authorities. The EAP should be satisfactory to the Bank prior to Final Review. The EAP should be subject to regular review and revision satisfactory to the Bank and, where compliance is an issue, to the appropriate regulatory authorities.

# 2. Environmental Appraisal related to Intermediated Financing

A significant part of the Bank's investment in its countries of operation is channelled through financial intermediaries (FIs) which act as the Bank's vehicles to provide funding mainly for the small and medium sized enterprise (SME) sector. They include regional, national and sectoral investment funds, banks, insurance and leasing companies, and other financing mechanisms. The Bank needs to ensure the proper implementation of its environmental mandate in its FI operations while respecting the principle of delegated responsibility which characterises such operations. FIs are therefore required to adhere, at a minimum, to the following basic requirements which will be incorporated into the legal documentation:

- 1. The FI will have to develop and implement environmental procedures satisfactory to the Bank and integrate them as fully as possible into its credit/investment appraisal and monitoring procedures.
- 2. The FI will have to comply with the Bank's *Environmental Exclusion List* for FIs. This list includes activities prohibited by international environmental agreements or where the Bank considers indirect financing inappropriate because of the significance of associated environmental risks.
- 3. The FI will have to submit to the Bank periodic (usually semi-annual or annual) reports on the implementation of its environmental procedures and the environmental performance of its investment/lending portfolio.

The Bank requires its FIs to assess potential environmental impacts, risks and opportunities associated with their operations, to ensure environmental audits and assessments are conducted where appropriate and to require that the environmental standards expressed in the Bank's revised Environmental Policy, and, at a minimum, local and national environmental and public consultation requirements are satisfied. Each FI is required to comply with the appropriate procedures; however, it may tailor these procedures to suit the specific structure of the institution. Such individual procedures need to be agreed with the Bank.

Prior to establishing relationships with FIs, the Bank conducts environmental due diligence on the potential partner(s) and the proposed pipelines of operations. Issues to be considered include the environmental performance and environmental risks and liabilities associated with the FI and its lending/investment portfolio, its environmental policies, procedures and capabilities, the nature of the loans and investments to be supported with the use of Bank funds, and the need for technical

cooperation to facilitate the adoption of environmental procedures satisfactory to the Bank.

In addition to lending to, and investing in, SMEs via financial intermediaries, the Bank may also finance investments in specific sectors, on a regional basis. These multi project facilities allow the Bank to support a number of linked investment operations in conjunction with, on the one hand, enterprises in the Bank's countries of operations, and, on the other hand, with experienced multinational companies. The environmental due diligence requirements placed upon such investment vehicles are broadly similar to those for FIs. Prior to establishing such relationships however, the environmental performance of the company is considered in depth using a multi project facility environmental questionnaire as the basis for such investigation.

As part of the environmental appraisal of intermediated finance operations, the risk to the environment associated with the intermediary and its portfolio is characterised as low, medium or high and indicated in the ESM and ERM. (See Figures 2.1 and 3.1)

# 3. Environmental Appraisal related to Technical Cooperation (TC) Operations

In addition to making loans and equity investments, the Bank also operates a Technical Cooperation Funds Programme (TCFP). All TC operations are screened by EAU (See Figure 2.2) to identify any environmental issues and build in environmental requirements. Most TC operations are undertaken as part of the preparation of subsequent investment operations. The environmental appraisal of these kinds of TC operations can result in their expansion or modification to include an environmental investigation as an integral part of the study. Other TC operations are related to sector studies, advisory services (e.g. privatisation, restructuring, financial and legal advice) and training. In these cases, environmental appraisal can result in the inclusion of an environmental component or perspective. TC funds can also be used for "stand alone" environmental activities such as the provision of environmental training courses and studies of environmental standards.

# E. THE ENVIRONMENTAL APPRAISAL PROCESS WITHIN THE BANK

Environmental Appraisal is a process that begins at the earliest stages of operation preparation and continues throughout the life of every Bank investment operation (see Figure 1). The stages of the Bank's "operation life cycle" are set out in the Bank's Operations Manual and are described below in terms of the way in which environmental appraisal is carried out at each stage.

# 1. Operation Identification/Concept Clearance

During the operation identification phase, Project Sponsors are requested to provide environmental information to the Bank at the same time as other initial information. OLs need to ensure that such information is submitted to EAU no later than Concept Clearance. The information should indicate, for example, if preliminary environmental investigations have already been carried out. It could also provide an "early warning" if the operation is likely to be of a controversial nature due, for example, to its location in an environmentally sensitive area. It is recognised that, in many cases, such information may not be available at an early stage. When it is available, it should be included in the Concept Clearance Memorandum, as it will later help EAU to screen the operation to determine the level of environmental investigation required.

EAU environmental specialists are allocated to the operation following concept clearance. However, an ESM (see below) will only be prepared when sufficient information on the parameters of the operation has been received (for example on site location and other physical parameters). This is usually only available just prior to Initial Review.

### 2. Initial Review

Prior to Initial Review, environmental screening is carried out by EAU to identify potential environmental issues associated with a proposed operation and to specify the types of environmental information required in order to assess environmental risks, liabilities, regulatory compliance, any adverse environmental impacts, and other concerns. The information required should include an analysis of the applicable environmental legislation and standards.

(Annex E describes the way in which the Bank applies environmental Standards in its operations).

Environmental screening should also identify potential environmental benefits or enhancements which could be built into the operation. These could include opportunities for cleaner production, energy efficiency, waste reduction and other forms of good environmental practice. Screening also provides EAU with the opportunity to identify possibilities for the involvement of the Bank's Energy Efficiency Unit (EEU) and/or officers of the Project Preparation Committee<sup>1</sup> (PPC) in the operation.

<sup>&</sup>lt;sup>1</sup> The Project Preparation Committee (PPC) was established to strengthen the linkage between donors and international financial institutions in the preparation and financing of environmental and related investment projects in the region. The PPC comprises international financing institutions, the EU Commission, and bilateral donors which are willing to provide co-financing to support environmentally-orientated projects.

Screening is undertaken by EAU, whose environmental specialists prepare an Environmental Screening Memorandum (ESM). At least two members of EAU are involved in the appraisal of every operation. If an operation requires an environmental impact assessment it is screened in category "A", if it requires an environmental analysis it is screened in category "B". When neither is required, it is screened in category "C". If an operation requires an environmental audit, it is screened in category "1". If no audit is required, it is screened "0".

The format of the ESM differs depending on whether the operation being screened concerns an investment operation, intermediated financing or technical cooperation and is only prepared when a draft Initial Review Memorandum (IRM) has been submitted to EAU. (See Figures 2.0, 2.1 and 2.2). The ESM is submitted by the OL to OpsCom as part of the documentation for Initial Review. EAU members have the right to make representations at OpsCom.

# CONFIDENTIAL

# ENVIRONMENTAL SCREENING MEMORANDUM - Investment Operation -

Op	peration Title:			
Op	peration Team:			
Ini	itial Environmental Examination needed	? Yes/No		
En	vironmental Screening Category:			
1	Brief description of the operation	Brief description of the operation		
2	Preliminary environmental informati	on		
3		eening (e.g. regulatory compliance, risks and ental impacts, such as biodiversity and climate		
4	Environmental opportunities apparent improvements, clean production)	nt at screening (e.g. energy efficiency		
5	Reason for screening into the chosen Assessment: Audit:	category		
6	Public consultation requirements			
7	Other issues			
8	Actions			
SIG	SNATURE: Environmental Specialist	DATE:		
SIG	SNATURE: Environmental Specialist	DATE:		

# CONFIDENTIAL

# ENVIRONMENTAL SCREENING MEMORANDUM - Intermediated Financing -

Oper	ration Title:
Oper	ration Team:
1	Brief description of the operation
2	Preliminary environmental information
3	Environmental issues associated with the operation (e.g. risks and liabilities, regulatory trends and other country-specific issues)
	Environmental Risk Rating: [high/medium/low/insufficient information]
4	Environmental issues associated with the potential portfolio (e.g. typical compliance problems, impacts, risks and liabilities, benefits and opportunities)
	Environmental Risk Rating: [high/medium/low/insufficient information]
5	Environmental due diligence and monitoring requirements
6	Further information requirements
7	Other issues
8	Actions
	NATURE: DATE: ronmental Specialist
	NATURE: DATE:

# 3. Environmental Investigations

Environmental investigations are commissioned by the Project Sponsor to provide the environmental information specified in the ESM. Environmental impact assessments, environmental analyses, and environmental audits are the main types of environmental investigations that are carried out on operations which have potential environmental implications. Descriptions of these investigations, together with the special requirements for Intermediated Financing and Technical Cooperation (TC), have been summarised in Section D above.

Additional types of investigations, which may be required depending upon the specific nature of the operation, include, for example, energy audit, waste audit, hazard analysis, and quantified risk assessment.

### 4. Consultation with the Public

The EBRD believes that effective public consultation is a way of improving the quality of operations. The Bank's purpose is "to foster the transition towards open market oriented economies and to promote private and entrepreneurial initiative in the Central and Eastern European countries committed to and applying its principles of multi-party democracy, pluralism and market economics". This means that at a minimum, Project Sponsors must ensure that all national requirements for public consultation in the country where the operation will take place, are met. In addition, Sponsors will have to follow the procedures described in the Bank's Disclosure of Information Policy and Annex A of these Procedures. In addition to the involvement of government agencies and elected officials, those potentially affected by a significant new, extended or transformed operation, which has been classified as "A" level, should be consulted so that they have the opportunity to express their concerns and views before a financing decision is made. The specific timescale requirements and other procedures of the EBRD for consultation with the public are detailed in Annex A. In particular, for private sector "A" level operations there will be a minimum of 60 days between the release of the EIA and the date of Board consideration of the project. For public sector operations this period will be a minimum of 120 days.

# 5. Negotiations/Environmental Covenants

Bank investments are negotiated between Operation Teams and the Project Sponsor. The main instrument for negotiating non-sovereign operations is the Term Sheet, an outline of the future loan/subscription agreement summarising the structure and principal terms and conditions of the proposed operation. Negotiations of sovereign operations are focused on the draft loan agreement.

Failing to incorporate environmental, health and safety requirements and conditionalities early into the draft Term Sheet may cause delays in the operation cycle, including the need to re-negotiate the Term Sheet. If, at the time of negotiations, details of the outcome of the environmental appraisal process are still outstanding, generic environmental covenants will be incorporated in the Term Sheet. These will alert the sponsor that more specific environmental provisions are may be required, depending on the results of the environmental investigations.

It is the OL's responsibility to ensure that the Term Sheet and all other legal documents related to operations adequately reflect the requirements resulting from the environmental appraisal process, in particular those issues raised in the ESM and ERM (see #6 below). The OL must ensure that the environmental provisions included in the legal documentation (e.g. conditions, covenants, monitoring and reporting requirements have been reviewed and agreed by EAU prior to negotiations. The environmental specialists must agree to any change being made in the legal documents in order to ensure consistency with the environmental and health and safety requirements outlined in the ERM, Board documentation, and any (draft) legal documents and related documentation previously agreed with EAU. It is the responsibility of the OL to request the involvement of an environmental specialist from EAU in negotiations as required and to obtain EAU's approval of the documentation before signing.

### 6. Final Review

EAU carries out a review of every operation before it is submitted to OpsCom for Final Review. The review is based on the findings of the EIA, audit or other environmental investigation carried out on the operation together with the results of public consultation and site visits which may have been conducted by the environmental specialists. It also addresses regulatory compliance issues, including permitting, the adequacy of mitigation plans and identifies requirements for legal documentation which have not already been included in environmental covenants. References to standards often need to be incorporated in the legal documentation. The covenants in such cases will specify conditions to ensure compliance with all applicable standards, regulations and laws. Compliance with relevant environmental standards and regulations is required for all goods, equipment and services procured.

The operation environmental review is documented in an Environmental Review Memorandum (ERM) signed by the environmental specialists who reviewed the operation. A summary of the environmental review is incorporated in the Final Review Memorandum (FRM) which, together with the signed ERM, is submitted to the Operations Committee prior to Final Review. If EAU has insufficient information to conduct a thorough environmental review, it will recommend in the ERM that the Review at hand be considered an interim one and that the operation be re-submitted to OpsCom for Final Review once sufficient environmental information is available to EAU.

At a minimum the environmental section of the FRM should contain, as a reflection of the findings in the ERM, the following information:

- i) Current environmental/health & safety status of operation
- ii) Potential environmental impact of the operation to be financed by the Bank
- iii) Summary of action plan and status of agreement with authorities, if applicable
- iv) Environmental additionality

- v) Status of public consultation
- vi) Other issues

The OL must obtain EAU's approval of the wording of this section.

As with ESMs, the format of the ERM varies depending on the type of operation. The ERM for a direct investment differs from that for intermediated financing. ERMs are not prepared on TC operations as they are submitted to a simultaneous Initial/Final Review.

At Final Review, the Operations Committee will discuss any environmental issues arising from the environmental appraisal. EAU members have the right to make representations at OpsCom. The Bank clearly establishes the principle that an operation can be rejected on environmental grounds, when there are major environmental problems, or when an operation fails to handle environmental issues in a satisfactory way. In cases where the members of the Operations Committee cannot form a consensus, ultimately the Executive Committee, chaired by the President, will make a decision.

# CONFIDENTIAL

# ENVIRONMENTAL REVIEW MEMORANDUM - Investment Operation -

Oper OGC	ration Title: ration Team: C Lawyer: ronmental Screening Ca	tegory:			
1	Brief description of the operation				
2	Environmental information reviewed				
	Information	Date	Outcome		
3	Site visits by Bank envi	ronmental staff/ const	iltants		
4	Compliance status (e.g.	local regulations, inter-	national standards, good	practice)	
5	Environmental/health and safety issues and proposed mitigation (including adequacy of mitigation)				
6	Summary of environmental action plan				
7	Environmental additionality (e.g. environmental benefits/enhancement measures other than those covered in #5, such as those relating to energy efficiency, clean production, etc)				
8	Status of public consultation				
9	Outstanding requirements, agreement, covenants, m	ents for legal document onitoring and reporting	tation (e.g. conditionalit, and exit audit)	y, completion	
10	Issues of particular concern (e.g. global/regional etc.)				
11	Outstanding issues				
12	Further actions require	ed by Bank staff and t	he Project Sponsor		
SIG	NATURE:Environmental S	Specialist I	DATE:	_	
SIG	NATURE:	I Specialist	, DATE:		

# CONFIDENTIAL

# ENVIRONMENTAL REVIEW MEMORANDUM - Intermediated Financing -

Ope	eration Title: eration Team: C Lawyer:
1	Brief description of the operation
2	Environmental information reviewed
3	Site visits by Bank environmental staff/consultants
4	Environmental issues associated with the operation (e.g. risks and liabilities, regulatory trends and other country-specific issues)
	Environmental Risk Rating: [high/medium/low/insufficient information]
5	Environmental issues associated with the potential portfolio (e.g. typical compliance problems, impacts, risks and liabilities, benefits and opportunities)
	Environmental Risk Rating: [high/medium/low/insufficient information]
6	Environmental due diligence requirements (based on FI's existing or proposed environmental procedures, if any)
7	Operation monitoring and supervision requirements (e.g. EBRD review of loan/investment proposals and reports, annual environmental reporting by FI)
8	Outstanding requirements for legal documentation (e.g. environmental clauses in policy statement, conditionality, requirements for sub-projects, monitoring and reporting covenants)
9	Other issues (need for technical cooperation support, public consultation etc)
10	Further actions required by Bank staff and the Project Sponsor
SIG	NATURE: DATE: Environmental Specialist
SIG	NATURE: DATE: Environmental Specialist

# 7. Board Approval

Final responsibility for the environmental section of the Board Documentation rests with the OL. The OL, however, needs to obtain the approval of EAU on its content before it is included in the documentation and distributed to the Board of Directors. The environmental section should conform to the elements contained in #6 above. The OL must obtain EAU's approval on any changes made to the environmental section following Final Review. In addition to the environmental section, the Board documentation may include an Environmental Annex. The Board documentation should also include a statement on conformity with the Bank's Environmental Policy.

Environmental specialist(s) may attend the Board meeting on the operation to assist the Operations Team in answering questions regarding the environmental, health and safety and public consultation aspects of the operation.

# 8. Monitoring

Monitoring is an important aspect of the Bank's environmental appraisal process. It serves two purposes. The first is to ensure that the applicable environmental standards and various environmental components of operations included in legal agreements, such as the implementation of an Environmental Action Plan, are complied with by the Project Sponsor. The second is to keep track of the ongoing environmental impacts associated with operations and the effectiveness of mitigation measures as a "feed back" mechanism. The environmental monitoring requirements exist until the time at which the loan has been repaid, the Bank divests its equity share in a company, or the operation is cancelled. Where environmental monitoring is required, specific provisions are included in the legal documentation, such as requirements for an annual environmental report, periodic environmental audits by independent experts, the inclusion of environmental performance criteria in the definition of "project completion", exit audits, or site visits by Bank personnel.

After the signing date, all environmental covenants contained within the legal documentation will be identified for monitoring purposes by OAU, who will require EAU sign off as evidence of compliance as each monitoring report is received satisfactory to the Bank, or as the covenant is otherwise met. EAU should inform the OL and OAU at the earliest opportunity of any breach or suspected breach of environmental covenant or loan condition. The EAU specialist will also liaise with OAU to establish specific environmental reporting needs or deadlines if not specified in the legal documents as part of the general reporting requirement.

Where a waiver or amendment concerning environmental matters is required, OAU will take responsibility for producing the waiver, requesting input from EAU who will review the text and sign off (together with other Operation Team members) the memorandum prior to submission to Senior Management for approval.

Following operation implementation, EAU staff or environmental consultants, with the agreement of the OL, may undertake site visits on a routine or occasional

basis. The Bank's Resident Offices can assist EAU and OLs in obtaining information on such issues as regulatory compliance and the implementation of Environmental Action Plans.

As part of the Bank's internal monitoring review process, the environmental performance classification is included as part of monitoring reports. EAU representatives may attend credit monitoring review meetings and will comment as necessary on the OL's environmental performance classification.

# 9. Completion and Evaluation

The Bank's operation evaluation phase starts at "Project Completion". For investment operations, "Project Completion" normally coincides with the end of the Bank's disbursement phase and is legally defined in the Bank's agreement with the Project Sponsor. The definition may include environmental performance criteria. EAU will assist the OL in determining whether such criteria have been met by the client.

For the year of "Project Completion", the OL prepares an Expanded Annual Monitoring Report (XAMR). EAU needs to be in agreement with the environmental section of XAMRs Operation Performance Evaluation Reports (OPERs) are prepared on selected operations by the Project Evaluation Department (PED). EAU can comment on OPERs during their preparation.

# 10. Re-Appraisal of Operations

Changes can occur in the nature and scope of Bank operations following Board approval and signing. Such changes may have significant environmental implications associated with them. The conversion from a loan to equity, for example, may involve the Bank becoming associated with operations, sites or facilities which were not previously appraised and which could have significant environmental liabilities or compliance problems.

When such changes are envisaged, the OL must liaise with EAU's environmental specialists to determine if a re-appraisal is needed for the modified/restructured operation. A re-appraisal will be required if a change in the physical components (e.g. sites, facilities, processes, collateral) associated with the operation may potentially involve environmental issues which were not subject to the initial appraisal. EAU will determine which additional investigations, if any, are needed, and agree with the OL on the time schedule for carrying them out. If the operation is re-submitted to OpsCom, a new ERM will be required. Based on the outcome of the environmental investigations, EAU will determine which, if any, environmental covenants and/or conditions need to be included in the agreements documenting the modification of the operation.

# 11. Workout and Foreclosure

If, during workout or foreclosure, the Bank is considering taking physical assets which have been pledged as security on the investment, these should not be acquired until EAU has advised the OL on the need, if any, for further environmental due diligence.

#### Annex A

### CONSULTATION WITH THE PUBLIC

#### Introduction

The European Bank's purpose is "to foster the transition towards open market oriented economies and to promote private and entrepreneurial initiative in the Central and Eastern European countries committed to and applying its principles of multi-party democracy, pluralism and market economics".

In addition to the involvement of government agencies and elected officials, those potentially affected by a significant new, extended, or transformation-conversion operation, which has been classified as "A" level, should be consulted, together with non-governmental organisations, so that they have the opportunity to express their concerns and views before a financing decision is made.

The preparation of an operation which has potentially significant environmental impacts gives Project Sponsors the opportunity to supply information to the public about the proposed operation while at the same time affording the public the opportunity to influence operation design, including location, technological choice, and timing.

Many of the countries where the Bank operates already have or are developing public consultation procedures, associated with the preparation of environmental impact assessments. At a minimum, Project Sponsors must ensure that all such national requirements for public consultation and the procedures set out below are met.

### **Procedures**

For all non-sovereign operations, the Mandate Letter sent by the Bank to sponsors after Concept Clearance, includes the Bank's public consultation procedures as part of the basis for the Bank's further involvement with the operation. For sovereign operations, the Bank will inform the Borrower about its public consultation procedures following concept clearance. The Sponsor is thus informed of the requirement to make certain environmental information public, in accordance with the Environmental Procedures. For all operations, public consultation requirements will be identified in the Environmental Screening Memorandum at the time of Initial Review and these will be communicated to the Project Sponsor by the OL. These may be upgraded if the environmental investigations demonstrate a need for this. Among the mechanisms for consultation which may be used are technical meetings with experts, meetings with community leaders, public meetings, press and other media coverage and correspondence.

At Final Review, the Bank's Operations Committee will be informed, via the Environmental Review Memorandum, about the public consultation status of each operation they consider. When considering whether to approve an operation, the Board of Directors will take into account the comments and opinions expressed by

consultees and the way these issues are being addressed by Project Sponsors. They will consider the extent to which the sponsor has addressed the Bank's public consultation procedures. The documentation on each operation submitted for Board approval will summarise the status and results of public consultation.

For "A" level operations, where there are potentially diverse and significant environmental impacts which cannot be readily identified and quantified and for which remedial measures cannot easily be prescribed, the Project Sponsor will be requested to provide the affected public, and, interested, non-governmental organisations (NGOs), with notification about the nature of the operation for which financing is sought from EBRD. The way that notification is undertaken will depend on local political, legal, and cultural practice. If there has been no previous notification by the Project Sponsor then notification should be made no later than four weeks after the operation passes Initial Review unless the Project Sponsor has obtained OpsCom's agreement that this timescale, exceptionally, may be modified.

It is Bank policy that release of information is the responsibility of Project Sponsors. The Bank's relationship with a private sector sponsor carries an implicit client confidentiality status, even if no confidentiality agreement is signed. Within this policy framework, the Bank will place the onus on sponsors to prove, to the satisfaction of the Bank's Operations Committee, that, on an exceptional basis, there are commercial confidentiality considerations on an "A" level private sector operation which are so important that details of a prospective operation cannot be made public prior to Board approval. Where a private sector client demonstrates, to the satisfaction of the Bank's Operations Committee, that the comfort of a Board decision to fund an operation is necessary prior to any disclosure about the operation, the legal documentation will not be signed until the necessary public participation is completed. In such cases, the scope and procedures for future public consultation, including a requirement to provide information to the Board on Public Consultation, will need to have been agreed with the Project Sponsor prior to Board submission.

For all 'A' level operations, the Project Sponsor will need to have ensured through a scoping process that the key issues that need to be appraised, and the way the public will be involved in the appraisal, have been identified. This scoping process will involve contact by the Project Sponsor with representatives of the locally affected public and with government agencies, as well as with other organisations. Issues may be discussed at a scoping meeting to which the Project Sponsors will invite selected representatives of such organisations as environmental authorities and municipalities, government departments, and NGOs as well as local groups. For operations involving transboundary impacts the requirements outlined in the Espoo Convention must be followed. The Bank may, according to circumstances, provide guidance to, and assist, the Project Sponsors at this and other stages of the public consultation process.

Following the completion of environmental investigations, the public will need to be provided with adequate information on the environmental aspects of the operation to enable them to provide the Project Sponsor with comments on the proposals. To facilitate this, the Project Sponsor must make the environmental impact assessment and an Executive Summary (in the local language) publicly

available, in accordance with relevant national legislation, and allow sufficient time for public comment prior to the Bank's Final Review of an operation and its consideration by the Board. For private sector operations there will be a minimum of 60 days between the release of the EIA and the date of Board consideration. For public sector operations this period will be a minimum of 120 days. In addition, there must normally be at least thirty days between the release of the EIA and the time when the OL and EAU consider the results of public consultation prior to the submission of the FRM to the OpsCom Secretariat. In practice, a longer period than 30 days will be required by the Bank for the more complex and significant operations. In exceptional cases, where timing is crucial and Bank management is satisfied that the Bank's Environmental Procedures have in all other respects been followed, the minimum timescale requirements may be waived in the case of private sector operations. In these cases the waiver will be reported in the Board documentation. At the time of EIA release by the Project Sponsor, EBRD will make available the EIA and EIA Summary in the Business Information Centre (BIC) without EBRD endorsement. The EIA summary will be sent to the Board of Directors at the same time.

On "B" level operations the country's public consultation requirements will need to be followed at a minimum. For "B" level public sector operations, an environmental analysis will be attached as an annex to the Bank's Project Summary Document (PSD) which will be released after Initial Review and will be made available through the Business Information Centre. For private sector operations a summary of the key findings of the environmental analysis will be attached to the PSD which will normally be released at least 30 days prior to Board consideration of the operation. In some cases the environmental analysis will indicate that there have been significant environmental issues associated with ongoing operations, for example where, in the past, facilities have failed to comply with permitting or other environmental or health and safety requirements. In these cases, in addition to release of information by the Bank on "B" level operations, the Bank will normally require that the Project Sponsor will make available to the affected public a statement on the remedial measures agreed with the Bank, prior to first disbursement.

The Bank may require that covenants related to future public consultation during operation implementation be included in loan and subscription agreements. For example, the Bank may require the results of ongoing environmental monitoring to be made available to the public. At operation completion, the evaluation of an operation's performance will include, where appropriate, a review of the implementation of public consultation requirements and consideration of how any issues that were raised by the public during implementation were addressed.

There are normally no environmental disclosure requirements for "C" level operations.

For all operations, environmental issues will be summarised in the Bank's Project Summary Document.

#### Annex B

# ENVIRONMENTAL IMPACT ASSESSMENT EBRD SAMPLE REPORT FORMAT

#### **Table of Contents**

### **EXECUTIVE SUMMARY**

A concise summary description of the proposed operation, its rationale, the existing environment, significant environmental impacts, recommended mitigation and enhancement measures and their costs, monitoring proposals, and the extent of the Project Sponsor's commitment to these recommendations and proposals.

### 1.0 OPERATIONAL CONTEXT

- 1.1 Purpose and Need
- 1.2 Legal and Institutional Framework
- 1.3 History of the operation including alternatives considered

# 2.0 DESCRIPTION OF THE OPERATION

### 3.0 DESCRIPTION OF THE EXISTING ENVIRONMENT

- 3.1 Climatic Conditions
- 3.2 Geomorphology and Geology
- 3.3 Surface and Ground Water Quality
- 3.4 Landscape
- 3.5 Ecology and Biotic Resources
- **3.6** Air Quality
- 3.7 Noise
- 3.8 Ground conditions
- 3.9 Socio-economic and cultural issues
- 3.10 Land Use and Settlement Patterns

# 4.0 DESCRIPTION AND ASSESSMENT OF THE SIGNIFICANT ENVIRONMENTAL IMPACTS OF THE PROPOSED OPERATION AT THE LOCAL, REGIONAL AND GLOBAL LEVELS

- 4.1 Impacts associated with Construction
- 4.2 Impacts associated with Operation
- 4.3 Impacts associated with closure and decommissioning
- 4.4 Identification of key uncertainties and data gaps
- 4.5 Comparison of impacts associated with alternatives, including the do-nothing alternative
- **4.6** Summary of least-cost analysis of alternatives

# 5.0 DESCRIPTION OF MITIGATION MEASURES AND/OR MEASURES TO ENHANCE ENVIRONMENTAL BENEFITS

6.0 OUTLINE OF AN ENVIRONMENTAL MONITORING PLAN

- 6.1 Monitoring during the Construction Phase
- 6.2 Monitoring during Operation

# Appendices

- I) Name of those responsible for preparing the EIA;
- ii) Written material references used in preparing the EIA;
- iii) Records of public meetings and consultations in preparing the EIA,
- (iv) Technical data that may relate to the assessment but is too detailed to be included in the main text.

### Annex C

# ENVIRONMENTAL AUDIT EBRD SAMPLE REPORT FORMAT

#### **Table of Contents**

# **EXECUTIVE SUMMARY AND COST ESTIMATE**

A concise summary of the findings of the environmental audit, issues of concern, recommended actions, time schedule for implementation and their costs (within a range). It should also summarise the opportunities for environmental enhancement, any gaps in information, further studies needed and the potential cost and time implications for undertaking them.

### 1.0 INTRODUCTION

### 2.0 THE FACILITIES

- 2.1. Physical Description
- 2.2. Facility Operations
- 2.3. Location
- 2.4. History and Environmental Setting
- 2.5. Summary of Utilities and Ownership

# 3.0 REVIEW OF ENVIRONMENTAL MANAGEMENT

- 3.1. Environmental Management Structure
- 3.2. Emergency, Security & Safety Plans
- 3.3. Company-Community Interaction
- 3.4. Environmental Insurance Coverage
- 3.5. Allocation of Environmental Responsibilities

# 4.0 ENVIRONMENTAL STATUS

- 4.1. Regulatory Compliance Summary
- 4.2. Air Emissions
- 4.3. Raw Water and Waste Water
- 4.4. Material Handling, Storage, and Transport
- 4.5. Hazardous Materials Management
- 4.6. Oil-Filled Electrical & Hydraulic Equipment (PCBs)
- 4.7. Asbestos, Mineral Dusts & Fibres
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#### ENVIRONMENTAL SCREENING CATEGORIES

#### I "A" level Operations

This list applies to "greenfield" or major extension or transformation - conversion operations in the categories listed below.

- 1. Crude oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.
- 2. Thermal power stations and other combustion installations with a heat output of 300 megawatts or more and nuclear power stations and other nuclear reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).
- 3. Installations solely designed for the production or enrichment of nuclear fuels, for the reprocessing of irradiated nuclear fuels or for the storage, disposal and reprocessing of irradiated nuclear fuels or for the storage, disposal and processing of radioactive waste.
- 4. Major installations for the initial smelting of cast-iron and steel and for the production of non-ferrous metals.
- 5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20,000 tonnes finished product; for friction material, with an annual production of more than 50 tonnes finished product; and for other asbestos utilisation of more than 200 tonnes per year.
- 6. Integrated chemical installations including the manufacture and transportation of pesticides and hazardous/toxic materials.
- 7. Construction of motorways, express roads and lines for long-distance railway traffic and of airports with a basic runway length of 2,100 metres or more.
- 8. Large-diameter oil and gas pipelines.
- 9. Sea ports and also inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1,350 tonnes.
- 10. Waste-disposal installations for the incineration, chemical treatment or landfill of toxic and dangerous wastes.
- 11. Large dams and reservoirs.
- 12. Groundwater abstraction activities in cases where the annual volume of water to be abstracted amounts to 10 million cubic metres or more.

- 13. Pulp and paper manufacturing of 200 air-dried metric tonnes or more per day.
- 14. Major mining, on-site extraction and processing of metal ores or coal.
- 15. Hydrocarbon production.
- 16. Major storage facilities for petroleum, petrochemical and chemical products.
- 17. Large scale logging.
- 18. Large scale waste water treatment.
- 19. Domestic solid waste processing facilities.
- 20. Large scale tourism development.
- 21. Large scale power transmission.
- 22. Large scale reclamation.
- 23. Large scale agriculture/silviculture involving the intensification or development of previously undisturbed land.
- 24. Tanneries.

The above list is clearly non-exhaustive and the types of projects it contains are examples only. EIAs are also required for "greenfield" or major extension or transformation-conversion operations which pose a serious accident or health risk. EIAs may also be required on operations which are planned to be carried out in sensitive locations, even if the operation category does not appear in the above list. These sensitive areas include National Parks and other conservation areas of national or regional importance, such as wetlands and areas of archaeological significance, areas prone to erosion and/or desertification, and areas of importance to ethnic groups.

#### II "B" level Operations

All "greenfield" or major extension or transformation projects not included in the list of "A" level operations are subject to a project-specific "B" level environmental analysis unless location, scale or other factors require an "A" level EIA to be undertaken.

#### III "C" level Operations

Operations which do not require either an "A" level environmental impact assessment or a "B" level environmental analysis are screened in category "C" which do not require an environmental assessment.

Regardless of the "A", "B", "C" categorisation for environmental assessment, operations may require an environmental audit.

#### Annex E

#### ENVIRONMENTAL STANDARDS

EBRD operations will support and advance appropriate environmental, health and safety standards throughout the region. The Bank operates in countries which, generally, have enacted environmental and health and safety legislation consistent with good international practice. Most of them have signed Association or Partnership and Co-operation Agreements with the EU, which provide for approximation of their national legislation towards full EU environmental standards and, in case of associated countries, for a progressive full compliance with the EU standards in view of their future EU accession.

EBRD operations will be structured to meet national and existing EU environmental standards or, where EU standards do not exist, national and World Bank standards. If these standards cannot be met at the time of Board approval, operations will include a programme for achieving compliance with national and EU or national and World Bank standards. In addition, the Bank will make recommendations and encourage project sponsors to bring their existing operations at the project site into compliance with good international practice and standards within a reasonable timeframe.

Where alternative approaches to those described above are required by an operation, e.g. as may be expected at the present time for most financial intermediaries, such approaches will in all cases be subject to Board consideration on a project by project basis. In all cases the standards applying to the operation will be an integral part of the Board documentation.

#### GLOSSARY OF ABBREVIATIONS

CCM Concept Clearance Memorandum

EAP Environmental Action Plan
EAU Environmental Appraisal Unit

EBRD European Bank for Reconstruction and Development

EEU Energy Efficiency Unit

EIA Environmental Impact Assessment
ENVAC Environmental Advisory Council
ERM Environmental Review Memorandum
ESM Environmental Screening Memorandum

EU European Union FI Financial Intermediary

FRM Final Review Memorandum

IEE Initial Environmental Examination
IRM Initial Review Memorandum
NGO Non Governmental Organisation
OAU Operations Administration Unit
OGC Office of the General Counsel

OL Operation Leader

OPER Operation Performance Evaluation Report

OpsCom Operations Committee

PCA Partnership and Co-operation Agreement

PED Project Evaluation Department
PPC Project Preparation Committee
PSD Project Summary Document

RO Resident Office

SEA Strategic Environmental Assessment
SME Small and Medium Size Enterprises

TC Technical Cooperation

TCFP Technical Cooperation Funds Programme

TOR Terms of Reference

XAMR Expanded Annual Monitoring Report

## Annex 4

UNDP "Handbook for the Environmental Impact Assessment Process in Azerbaijan"



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# HANDBOOK FOR THE ENIRONMENTAL IMPACT ASSESSMENT PROCESS IN AZERBAIJAN

"Approved"

by the Azerbaijan State Committee on Ecology and Control of Natural Resources Utilization April 27, 1996

#### HANDBOOK FOR THE

# "Environmental Impact Assessment Process in Azerbaijan"

Environment is an issue of paramount importance in any country, including Azerbaijan Republic. In view of this it is necessary to regard this Environmental Impact Assessment Process as an effective tool for harmonious economic development.

The purpose of EIA is to assign the environment the main part in the process of making decisions about the possible ecological consequences of proposed activities before these activities take place.

This is the first developed Resolution on EIA in Azerbaijan, and it must be implemented on a mandatory basis to all projects and development proposals. The main part in this process belongs to the Azerbaijan State Committee on Ecology and Control of Natural Resources Utilization (ASCE).

Representative Expert of the United Nations Development Programme

Dr. Philip Tortell

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#### 1 INTRODUCTION

#### 1.1 Definition and objectives of environmental impact assessment

The Environmental Impact Assessment Process is a process whereby the potential environmental consequences of development proposals are identified and evaluated from the point of view of the physical, biological and socio-economic environment, and ways and means are developed by which negative impacts are either avoided, or minimized to acceptable levels.

The EIA Process provides the environmental component for the decision-making process which must also take into account other factors such as national development plans, economic policies, etc.

#### 1.2 EIA situation in Azerbaijan

The "Guidelines on Procedures for the EIA Process While Developing Feasibility Studies of Projects of National Economy" were adopted by the State Committee on Ecology of the USSR in 1990 with an expiry date of 1992. These Guidelines were provided as additional to instructions which already existed on compliance with nature protection legislation. It was planned to review and amend the Guidelines as more up-to-date legislation and instructions regarding the EIA Process were developed.

Implementation of the *Guidelines* coincided with the collapse of the USSR and they were never legally endorsed by the Government of Azerbaijan. However, in the absence of any alternative guidance, the Azerbaijan State Committee on Ecology and Control of Natural Resources Utilization (ASCE) still applies these same principles together with relevant clauses of the Law on Nature Protection, to the current EIA Process.

The principles and procedures currently applied to the EiA Process in Azerbaijan are to be found in Annex 7.1.

The Government of Azerbaijan has decided to develop a new Environmental Impact Assessment Process. A number of new policies and procedures are reflected in this *EIA HANDBOOK*. In the main, the new EIA Process for Azerbaijan follows systems that are practiced in most other countries but which are adapted to suit the particular conditions and situation in Azerbaijan. Among the matters which are covered, are the following:

- The type of proposals and developments that the EIA Process will be applied to
- The definition of "environment"
- The roles and responsibilities of various organizations
- Public participation
- Cost recovery
- The appeal process

#### 2 THE EIA PROCESS

#### 2.1 To what does the EIA Process apply

The EIA Process is applied to all development proposals in principle. The extent and depth to which the Process is applied, depend on the severity of the expected environmental impacts and this decision is made by the ASCE in consultation with appropriate experts.

This means that all development proposals, by the private as well as the public sector, including Central and Local Government, come within the scope of the EIA Process and must comply with its requirements.

#### 2.2 The sequence of events

The environmental impact assessment activities surrounding a project should start at the very beginning - at the time when a project is being planned and pre-feasibility studies are being conducted. This early consideration of the environmental consequences of a proposed project will enable the Applicant to incorporate necessary environmental protection measures at little or no extra cost into the project.

By the time the Official Application Form is completed and lodged, the Applicant would have a fair idea of the likely environmental consequences of his/her proposed project.

As soon as the ASCE receives an Application it has one month to undertake the preliminary consideration and respond to the Applicant. If the ASCE decides that it requires further information for its preliminary consideration, it may ask the Applicant to provide such information. When this information is received, the new one month period will commence. During this month, the ASCE consults as appropriate with experts and others as well as attempts to get an idea of the extent of public concern regarding the Application. These preliminary investigations enable the ASCE to inform the Applicant whether it sees the proposal as a minor one in which case the information supplied in the Official Application Form is sufficient, or whether the Project is of significant magnitude and requires the full EIA Process to be applied. If it is the latter, the ASCE also informs the Applicant on the Processing Charges that will be payable, and on the date for the Scoping Meeting.

The Scoping Meeting is convened by the ASCE with the participation of the Applicant, invited experts and invited representatives as appropriate, and the meeting determines the scope of the EIA investigation as well as the contents of the EIA Document.

This is followed by investigations and consultations by the Applicant and when these are completed (without any time limit) the EIA Document is produced and forwarded to the ASCE which has three months to respond to the Applicant with a decision.

The ASCE advertises the availability of the EIA Document and where it can be examined. It also invites submissions from the general public or anyone who is genuinely interested in the Application. These submissions are to be sent to the Environmental Review Expert Group which will be set up by the ASCE specifically to consider each Application. The Environmental Review Expert Group will acknowledge all the submissions it receives.

The Environmental Review Expert Group conducts its own investigations and consultations, and reviews the submissions received. On completion of its work, the Environmental Review Expert Group produces the Environmental Impact Review Document containing its recommendations to the ASCE.

The ASCE publishes the Environmental Impact Review Document together with its decision on the Application. The decision to either refuse permission or grant permission with conditions needs to have reasons. In particular, the ASCE must discuss those aspects of its decision which are not according to the recommendations of the Environmental Review Expert Group.

If the Application is granted and permission is given (which will be the case with most applications), the ASCE, on the advice of the Environmental Review Expert Group, is likely to attach specific conditions which must be observed by the Applicant in carrying out the project. These conditions may relate to various phases of the project from the preliminary site works, to actual construction, right on to the operational phase of the project. On accepting the Permission, the Applicant/Developer also accepts the conditions attached to the Permission and these conditions become legally binding.

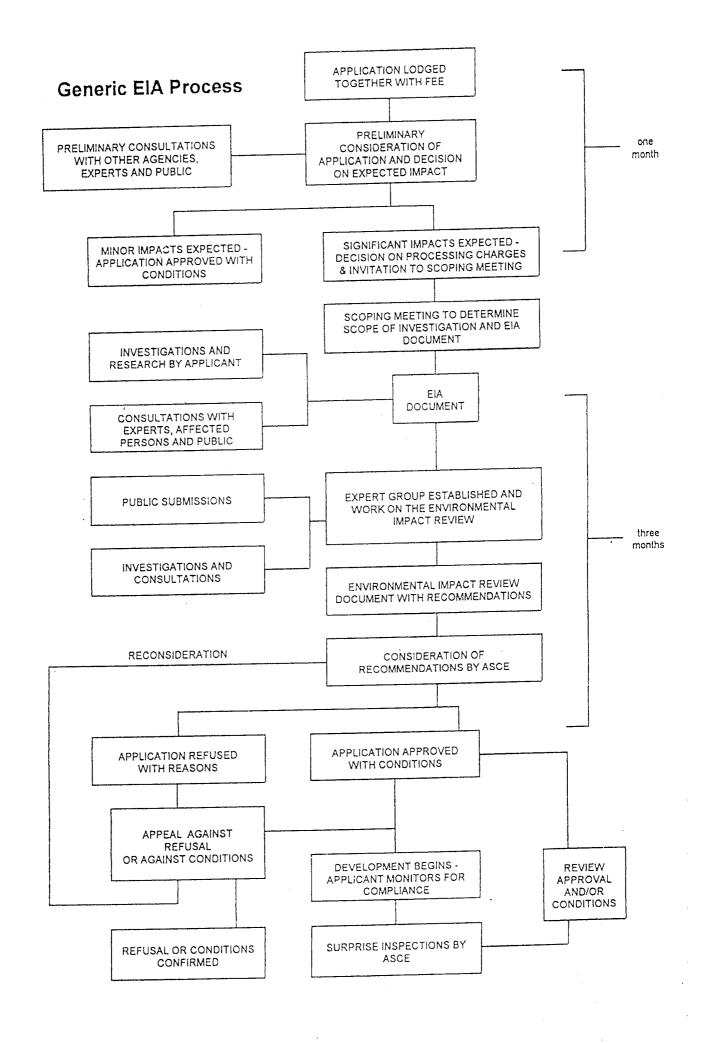
If Permission is not granted, or if the conditions attached to a Permission are thought to be too harsh, the Applicant/Developer has the possibility to appeal to the Courts. The result of arbitration may require the ASCE to review its decision.

One of the standard conditions of the Permission will be that the Applicant/Developer is responsible for monitoring certain set parameters to ensure that his/her activities comply with the set conditions and that environmental impacts are within the predicted and acceptable limits. The Applicant/Developer must report regularly, as required by the conditions, to the ASCE.

While the prime responsibility for monitoring will lie with the Applicant/Developer, the ASCE is required to carry out surprise inspections to check on the accuracy and the reliability of the Applicant/Developer's monitoring results. If it appears that there is a risk that the conditions might be breached, the ASCE issues a warning to the Applicant/Developer. If the conditions are being breached, the Applicant/Developer is legally obliged to stop whatever activity is causing the breach of the conditions. In such a case, the ASCE may reopen consideration of the Permit, possibly with the participation of the Environmental Review Expert Group, and the conditions attached to the Permission may be reviewed. The result of this review could go either way - the conditions could be relaxed, or they could be made stricter.

It should be stressed that when the conditions attached to a Permission are at risk of being breached, the Applicant/Developer is obliged to take corrective action to prevent such a breach. And, when the conditions are actually breached, the Applicant/Developer must stop the activity that is causing the breach until such time as the Permission and its conditions have been reviewed by the ASCE. If such a review does not relax the conditions, the Applicant/Developer cannot restart the offending activity and may need to consider an alternative approach or process. Such an alternative approach or process must be approved by the ASCE, after the consideration and advice of the Environmental Review Expert group.

The flow diagram on the following page summarises the main phases and activities of a generic E!A Process.



#### 2.3 Responsibilities

#### 2.3.1 The Applicant/Developer

The Applicant is responsible for filing a completed Official Application Form together with the set Application Fee. When informed by the ASCE regarding the Processing Charges that are payable, the Applicant must make payment of this amount before the process can commence.

The Applicant must then attend the Scoping Meeting and is responsible for the compilation of the EIA Document according to the scope and prescription determined by the Scoping Meeting.

In compiling the EIA Document, the Applicant may seek any assistance that may be necessary from whatever sources. It is advisable for the Applicant (or his/her advisers) to remain in contact with the ASCE during the compilation of the EIA Document in order to ensure that the ASCE's expectations are going to be met by the final EIA Document. It is also advisable for the Applicant to seek public views on the application and incorporate these views in the discussions carried in the EIA Document.

The Applicant is responsible for providing 5 copies of the final EIA Document to the ASCE at his/her expense.

Following the lodging of the EIA Document, the Applicant must be prepared to appear before the Environmental Review Expert Group to discuss the application and the EIA Document and to help the Group in its deliberations.

If the application is granted, the Applicant is responsible for adherence to any conditions that may have been attached to the approval. In order to ensure such adherence, it is the responsibility of the Applicant to monitor developments, at his/her expense, and report to the ASCE as required according to conditions of the Approval.

Should the monitoring programme indicate that conditions of the approval are in danger of being broken, it is the responsibility of the Applicant to advise the ASCE of such a danger and to take all practical corrective measures to avoid this. If, in spite of these corrective measures, the approval conditions are broken, the Applicant must stop the offending activity and consult with the ASCE for advice.

The Applicant is also responsible for obtaining any other approvals (in addition to environmental approvals) which may be required by other interested organizations, and according to other legislation.

#### 2.3.2 The Azerbaijan State Committee on Ecology (ASCE)

The ASCE plays a pivotal role in the EIA Process in Azerbaijan.

It is responsible for receiving and acknowledging the receipt of an application, and ensuring that adequate information has been provided.

During the preliminary considerations, which must be completed with one month, the ASCE is expected to make initial public enquiries particularly within the locality of the proposed development as well as have consultations with experts. Following these preliminary considerations, the ASCE is responsible for informing the Applicant of the extent to which the EIA Process will need to be applied to the proposal and the Processing Charges that are payable. At the same time, the ASCE will set the date for the Scoping Meeting with appropriate invited experts and community representatives. If the parties cannot reach a consensus at the Scoping Meeting, the ASCE must assume final responsibility for the scope of the EIA investigation and Document.

While the Applicant is conducting the EIA investigations and preparing the EIA Document, the ASCE must set up the Environmental Review Expert Group, chair it, and provide it with secretarial and administrative support.

When the Expert Group has finished its work, the ASCE must receive the Environmental Impact Review Document and make a public announcement on whether the application is being granted or not. In either case, the announcement must refer to the recommendations of the Expert Group and discuss reasons for accepting them or setting them aside.

If the application is being granted, it is the responsibility of the ASCE to attach any necessary conditions to the Permission to safeguard the environment.

It is then the responsibility of the ASCE to receive the results and reports of monitoring carried out by the Applicant and assess these for accuracy, reliability, and trends. It is also the responsibility of the ASCE to undertake surprise inspection checks to confirm the reports being provided by the Applicant.

#### 2.4 How and where to lodge an application

The Official Application Form for a permit may be lodged at the Head Office of the ASCE or at any Branch office (Local Environment Committee) of the ASCE. The Application will not be accepted unless it is in the appropriate official form, a copy of which is to be found in Annex 7.2. The Application Fee as determined from time to time by the Government, must accompany the Application.

The Applicant will receive a receipt for the Application and for the Application Fee paid. The date on the receipt indicates the start of the one month period within which the ASCE must respond.

The Head Office of the ASCE in Baku is located at :

Istiglaliyat Street, 31 370001, Baku Telephone +994-12-92 60 37 or 92 68 63 Fax +994-12-92 73 69

A list of Branch Offices (Local Environmental Committees) of the ASCE is found in Annex 7.3.

#### 2.5 Phase One of the EIA Process - preliminary considerations

Phase One of the EIA Process starts with the receipt of the Official Application Form and the Application Fee by the ASCE and lasts one month. Within that month the ASCE must conduct any necessary preliminary consultations with experts as well as those likely to be affected by the proposal, to determine whether the Application can be permitted on the basis of the information provided in the Official Application Form, or whether it must be subject to the full EIA Process. The criteria to be used by the ASCE in reaching this decision include, among others:

- whether the proposal involves an activity or technology which is new to Azerbaijan
- the magnitude and complexity of the processes or technologies proposed
- whether the proposal will involve a special environment such as the vicinity of a protected area
- the significance of expected consequences of the proposal on the environment
- whether the proposal will involve significant discharges to the atmosphere, to land, to the subsurface and/or to water
- whether the proposal is likely to lead to significant disruption for local inhabitants
- the extent of public concern expressed about the proposal

If, during its preliminary consideration, the ASCE requires more information from the Applicant before it can apply the criteria above, it can request such additional information and a new one month period

may start again once the additional information has been received.

Following its consultations and preliminary investigations, and if the Official Application Form provided all the necessary information, the ASCE may decide that the Application is a minor one which is unlikely to have any significant impacts on the environment. In this case, the ASCE may grant Permission for the Application to go ahead, with appropriate conditions.

If, on the other hand, the preliminary investigations indicate that according to the above criteria and expert advice, the Application is a major one with likely significant impacts on the environment, the ASCE will inform the Applicant that the Application must undergo the full EIA Process. At the same time, the ASCE informs the Applicant of the Processing Charges that are payable and of the date of the Scoping Meeting.

#### 2.6 Processing charges

The EIA Process will be administered according to the user-pays principle. The administrative costs which are specific to a particular Application for a permit, will be charged to the Applicant. The charges will be based on a percentage of the total costs of the development, with the exact percentage rate being as established from time to time by legislation. This will be in addition to the Application Fee and will reflect the magnitude of the Proposal and the amount of work required to process the Application.

Once an Application has been received, the ASCE will estimate the Processing Charges that will be applicable and will advise the Applicant. The second phase of the EIA Process will not commence until the amount covering the Processing Charges has been paid.

It is possible, at the discretion of the State Committee for the Environment, for the Processing Charges to be reduced in recognition of agreed environmental enhancement work to be carried out by the Applicant. However, in cases where the Applicant wishes to claim such a reduction, this can only be done at the completion of the enhancement work and will involve a refund from the Government of part or the whole of the Processing Charges.

Processing charges are not refundable whether a permit is granted or not.

#### 2.7 Timing

The EIA Process involves timing constraints for the ASCE. The ASCE is obliged to complete the preliminary considerations and provide a response to the Applicant within one month of receiving the Application, as long as all the necessary information is provided by the Applicant.

The ASCE is also responsible for ensuring that within three months from the time it receives the EIA Document, it must issue its decision to the Applicant. During this period, the Environmental Review Expert Group must undertake its review and investigations and report back to the ASCE with its Environmental Impact Review Document.

The Applicant has no time-limit for the EIA investigation and may take as long as necessary to produce the EIA Document. However, once a Permission has been issued, the Applicant must commence work and provide a report on progress within 12 months. Failure to show such progress will lead to the environmental Permission lapsing and the Applicant will need to reapply to ASCE if he/she decides to propose the same development again.

The time constraint on the Applicant is required since circumstances may change and new experience may be gained with the passage of time; and, what might have been acceptable some time ago, may not be acceptable any more after a while.

#### 3 THE EIA DOCUMENT

#### 3.1 The purpose of the EIA Document

The purpose of the EIA Document is firstly to describe the proposed development that is the subject of the Application for a permit. The EIA Document must also describe the immediate and distant environment that may be affected by the proposal. Secondly, the EIA Document is expected to identify any potential impacts or other consequences of the proposal on the environment, and propose ways and means for minimizing the negative impacts.

The EIA Document is the mechanism through which the Applicant will inform the ASCE and the general public about what he/she proposes to do. Through the EIA Document, the Applicant attempts to reassure everyone that the negative impacts will be controlled and minimized while the opportunities for environmental enhancement will be taken up.

#### 3.2 Scope of the EIA Document

#### 3.2.1 The Scoping Meeting

If the ASCE determines that the Application must be subject to the full EIA Process and requires an EIA Document to be prepared, it will set the date and convene a Scoping Meeting which it will chair.

In addition to the Applicant (with consultants and/or other advisers) the Scoping Meeting is attended by experts identified as relevant to the application in hand, as well as representatives of groups (such as NGOs and community groups) that are considered to have a genuine interest and who have been invited to attend by the ASCE.

It is desirable for the scope of the EIA investigation and the contents of the EIA Document to be agreed by consensus at the Scoping Meeting. If such a consensus is not able to be reached, the decisions of the ASCE will be binding on the Applicant.

#### 3.2.2 The contents of the EIA Document

The EIA Document is the result of serious investigations and wide consultations as well as the obtaining of advice on how to minimize environmental impacts. It must be written in a style and format easily understood by the general public. It must be a comprehensive and complete document, even if, in order to make it more easily read by the general reader, any technical details are carried in technical annexes. Illustrations are important and should include location maps, diagrams and photographs as appropriate, to assist the reader's understanding.

The contents are usually constructed as follows:

- Introduction The Applicant and his/her business, his/her environmental track record; the reasons for the proposal and its benefits to the region or the nation; the stage it has reached and the consultations held to date; how it fits in with government policy; consideration of alternative technologies; other considerations that need to be taken into account in addition to environmental protection.
- The Proposal Full description of the technological process and analysis of what is being proposed, taking into account the different phases such as planning and pre-feasibility, feasibility,

ground preparation, construction, and the finished work and eventual operational phase; work on-site and off-site must be described, for example the source of building materials, the destination of waste products, the methods of transportation to be used and the route; the work and construction schedule needs to be identified; information on the workforce that will be engaged; risk assessment; and any other relevant information.

- The Environment Describe fully the existing environment at the site and anywhere else away from the site, likely to be affected by the proposal. The environment must be described in terms of its various components (see 3.3 below) the physical, the ecological and the social. All environmental resources, values and uses must be identified and discussed, whether they are existing now or potential for the future (e.g., the tourism potential of a particular resource).
- Potential Environmental Impacts of the Proposal These must be identified whether they are direct or indirect; on-site or offsite; acute or chronic; immediate or long term; one-off or cumulative; transient or irreversible; etc. Each impact or set of impacts must be evaluated according to its significance and severity. A judgement is then made whether the impact is considered not significant and tolerable, or serious enough to require something to be done about it. A clear, detailed indication is then given on what will be done by the Applicant regarding the significant impacts avoidance, control and reduction to acceptable levels, or compensation and mitigation. The ideal target is no net loss, or preferably, positive enhancement of the environment.
- Conclusion Summing up of the previous chapters leading to a conclusion that the Proposal is an important one because of its benefits, that all is being done to minimize the cost to the environment, that all impacts are either controlled to an acceptable level or are justified (BPO, Best Practicable Option), and that in balance, the benefits of the project far outweigh the costs to the environment.
- Technical Annexes, etc

#### 3.3 Definition of "environment"

**Environment** is "all that surrounds us". For the purpose of the EIA Document, it can be considered as consisting of three main components as follows -

#### The physical environment

This is the environment of atmosphere, land and water.

It is covered by physics, chemistry, geology, engineering, hydrology, climatology, oceanography. It also includes - water quality and air quality; land and soil stability and erosion; water levels; minerals including petroleum and other non-living resources; radioactivity; seismic activity, etc.

#### The ecological environment

The environment of plants and animals, their relationships to one another and to their surroundings. It is covered by biology, botany, zoology, microbiology, ecology.

It also includes - predator/prey relationships, and food chains; rare, threatened and endangered species or any other species that merit protection; pests, pathogens and other problem biota; commercially-valuable organisms, etc.

#### The social environment

This is the environment of people, their families, communities and social structures.

Covered by sociology, economics, demography, political science, psychology, health, medicine, education

Includes - jobs and employment; industrial developments; safety, security, stability; health and well-being; social values and freedom of choice; housing, accommodation; urbanisation; quality of life, etc.

#### 4 PUBLIC PARTICIPATION

#### 4.1 Legal requirements

The "public" is anyone who is in any way affected by the proposal or shows a genuine interest in it. This includes residents who might be affected directly by disruption, displacement, noise, smells, traffic, or some other impact; it also includes community organizations and special interest groups. Also among the public are professional organizations and individuals who may have valid, technical opinions and views. Public also includes private sector industries and enterprises. Although not part of the public, government organizations who are not directly involved in the Project or the EIA Process, but who might have some interest in the Project, can also be considered as within the general definition of "public".

To ensure meaningful public involvement in the EIA Process, the EIA legislation will provide adequate legal standing and adequate means for public participation removing any barriers that might make it difficult for members of the public to participate in the Process. It is a requirement that the public must be informed about the proposal and the Applicant is required to advertise the fact that he/she has lodged an application in the printed media and notify any person or organization who will be directly affected by the Project. There may also need to be direct contact with the public at village level for proposals which are expected to have an impact at particular localities. It is also mandatory for the Applicant to show how and to what extent he/she has involved the public.

The Applicant must also supply, at his/her cost, 5 copies of the EIA Document to the ASCE who will advertise the availability of the EIA Document, and make these copies available for examination by the public in suitable locations such as at its Head Office, its district offices, local government offices, local schools, local library, etc.

The EIA Process must also be an effective two-way feedback system. It is not sufficient to invite the public to send in submissions. Submissions must be acknowledged and accounted for by the Environmental Review Expert Group and copies provided to the Applicant.

#### 4.2 Opportunities for public participation

In addition to accepting submissions that are volunteered by the public, the Environmental Review Expert Group will also actively seek public input. This is especially necessary until such time as the public of Azerbaijan is used to participating.

It is also normal practice to seek the specific advice, opinion or other views directly from selected members of the broad public as is seen necessary by the Expert Group. For example, the Expert Group may wish to obtain the views of a professional association, or an industrial organization, or a particular NGO, or a residents' group, etc.

The most common means of participation for the public in the EIA Process is by way of written submission which can best be defined as an expression of interest, opinion, view, objection, support, or whatever communication from the "public". It can be in any form, with the most common being - a written individual letter, a petition signed by many, a collective letter, a view expressed verbally at a public meeting, an answer to a questionnaire, etc.

All submissions should be formally acknowledged as having been received. Ultimately, the points raised in submissions need to be seriously considered and accounted for. It is also common to collate the submissions together with some statistical analysis and publish them in a comprehensive document.

Other ways of public participation include public meetings convened by the Expert Group at the locality where the Proposal will take place to hear what concerns there might be about the Project; discussion forums on specific technical aspects of the Project; debates with a selected audience on live television; and even live talk-back sessions on radio.

It is important for the Expert Group to record all input from the public regardless of how it is obtained. While the written submission will remain the basic form of public participation, other, more innovative mechanisms may need to be used under certain circumstances. Members of the public using these other mechanisms to participate, have as much right to be heard as those using the more conventional written submission approach.

#### 4.3 Public information mechanisms

Meaningful public participation is not possible without effective public information.

One of the most common and most powerful public information mechanisms is the written information document. In the EIA Process there are two documents in particular which provide public information. The first is the EIA Document which is produced by the Applicant and his/her advisers and consultants, and the second document is that produced by the Environmental Review Expert Group. Both must be written in a style that is readable and understood by the average, intelligent reader, and both must be made readily available to those who are genuinely interested.

It will not always be possible to provide tailor-made environmental information when a particular proposal is being considered and the public will need to rely on information about the broad environment and environmental resources which is already in existence. The ASCE is in the process of compiling a major work in the form of a State of the Environment Report for Azerbaijan. The value of this document to members of the general public will be immense.

A further document that may be considered for sometime in the future is an environmental resources atlas for Azerbaijan. The ability of such an atlas to gather together the available information on environmental resources and to present this information in a graphic and easily understood manner, will make such a document an asset for the public as well as the Applicant.

The news media, ranging from the printed newspapers to radio and television are all excellent mechanisms for public information which can be used by the ASCE as well as the Applicant. When provided with clear, factual information, most reporters will relay it successfully to their readers or audience. Conversely, badly structured and incomplete press statements or media kits will only lead to misinformation.

Finally, it is not sufficient for the public to receive information at the initiative of the Applicant or the ASCE or anyone else. It should also be possible for the public to obtain information that they believe they need. Such information should be available, by telephone, through Public Relations or Public Information sections of government organizations and private sector companies. It should also be possible for members of the public to call in person to obtain information. This mechanism will work best if the organization sets up a public counter specifically to act as a bridge between the organization and the public.

#### 5 THE ENVIRONMENTAL REVIEW

#### 5.1 The Environmental Review Expert Group

For the review of complex proposals, the ASCE will convene an Environmental Review Expert Group of no less than 5 members and no more than 11 members. The Group will be headed by a staff member of the ASCE but the members of the Group are selected from any source for their expertise and professional experience in matters that require consideration of the application in hand. They could be members of the Academy of Science, University staff or senior students, officials from other government ministries, members of NGOs, community leaders or knowledgeable citizens regardless of their affiliations. The Expert Group will be provided with administrative and secretarial support by the ASCE.

The Expert Group will receive, acknowledge and analyse all submissions sent in by the public regarding the Application. It will also conduct its own investigations and consultations and seek expert advice even from outside its membership, on any aspect related to the Application. Finally, the Expert Group will draw its own, independent conclusions regarding the Application.

The Expert Group will regulate its own procedures but it is expected to reach its final decisions through consensus. If such a consensus is not possible, decisions are made on a simple majority with the Chairperson having a casting vote in cases where there is no clear majority.

The Expert Group will report its findings in the form of an Environmental Experts' Review Document which will be made public within 3 months of the receipt of the EIA Document. However, the Expert Group has no executive power to grant or refuse the permit, it can only recommend. Its power comes from the fact that its findings and recommendations are made in public and the ASCE is required to take them into consideration in reaching its decision. The ASCE must also give reasons, in public, if it chooses not to comply with the recommendations of the Expert Group.

The Environmental Review Expert Group is created specifically for each different Application and it disbands once its Review is finished and its Environmental Experts' Review Document has been published. However, there could well be a need to recall the Expert Group or some of its members if, following monitoring, some changes appear to be necessary to the original conditions attached to the permit that has been issued.

#### 5.2 The Environmental Experts' Review Document

The responsibility for the Environmental Review and the publication of the Environmental Experts' Review Document lies with the ASCE. Depending on the complexity of the proposal being considered, the ASCE can either review the proposal on its own or convene an Environmental Review Expert Group to which it will appoint outside experts as necessary.

The contents of the Environmental Experts' Review Document are usually as follows:

• Introduction - Restate government policy that the impact of development proposals must be minimized and controlled to remain within tolerable limits. Refer to relevant legislation. List the

membership of the Expert Group and how their expertise relates to the tasks posed by the proposal; describe the extent of investigations and the consultations undertaken by the Expert Group.

- The EIA Document Critically review it as a publication bearing in mind its objectives. Comment on its strong points and its weaknesses; note serious omissions.
- The Submissions Provide statistical breakdown on the number of written submissions received and from whom; report on other than written submissions and how they were recorded or gathered. Bring out the most popular concerns raised, the extent of support for the proposal; and matters raised in submissions which require full and further consideration. Provide a synthesis or summary of some key submissions.
- The Proposal and the Environment Comment on the description of both the proposal and the environment as given in the EIA Document and judge its accuracy. Refer to submissions and own research and investigations and supplement the information given in the EIA Document.
- Potential Environmental Impacts of the Proposal Taking into account matters raised in submissions and the Panel's own research, investigations and consultations, judge the accuracy and completeness of the EIA Document. If necessary, supplement the information on impacts given in the EIA Document and provide advice on how these and other impacts can be avoided, controlled, minimized or managed in any other way. Advise also on what might be tolerable levels of impacts which cannot be avoided completely. Advise also on what is scientifically acceptable as compensation and mitigation for impacts that are unavoidable.
- Conclusions Summarize the Expert Group's findings regarding the adequacy and accuracy of the EIA Document; the quality and helpfulness of the submissions; and the key issues which need to be addressed. Agree or disagree with the EIA Document regarding the importance and benefits of the Project and on the measures it proposes to minimize and control the cost to the environment. Declare whether the Project should be allowed to go ahead if "no", justify such a conclusion; if "yes", provide details on the conditions that might need to be attached to the permit or approval.
- Recommendations An official statement on whether the Project should go ahead or not. If "yes", recommend conditions that should be attached to the permit and quantifiable limits that can be monitored.

#### 6 THE DECISION

#### 6.1 General contents of the Decision

The Decision on whether the Application is approved or not is issued by the ASCE. If the Application is for a minor development which is not expected to have significant impacts on the environment, the Decision is given following the preliminary considerations, within one month of the Application being lodged. If, on the other hand, the Application is a major one with significant impacts on the environment, the Decision is only given following the full EIA Process within three months of the delivery of the EIA Document by the Applicant to the ASCE.

Regardless of the extent of the EIA Process, the Decision will still have the same general format. If the Decision is to refuse the Application, the ASCE must provide a discussion of the reasons why it is being refused. If the Decision is to grant the Permission, the ASCE must also provide a discussion of the reasons why it is being permitted.

It is most likely that a Decision to permit a project will have conditions attached to it. In developing these conditions, it may be mutually beneficial to discuss them with the Applicant. These conditions may also be referred to in the ASCE discussion.

The ASCE is not obliged to accept any of the recommendations of the Environmental Review Expert Group. However, in this case the ASCE must give reasons why it is not accepting the recommendations.

The Decision must be signed by the Head of the ASCE.

#### 6.2 Conditions which may be attached to the Permission

Conditions that are attached to a Permission are intended to help the Applicant/Developer to control environmental impacts so that they remain within acceptable limits. It is therefore important to be selective in setting conditions and not require any that are not essential.

It is often possible to select target resources or organisms that have priority and which must be protected, and develop conditions around the needs and tolerances of these resources or organisms. If the predicted impact involves a potentially toxic substance, it is important to consider the worst case scenario after assessing the inherent hazard and the potential risk.

It is important to develop conditions that cover the various phases of the project. This means that there may need to be different conditions for the construction phase and the operational phase.

Conditions for the Permission that might be considered during the construction phase may include:

• site management; noise, dust and smell; discharges to air, land, subsurface or water; solid waste management; fire risk; contingency plans, etc.

Conditions that might be considered during the operational phase may include:

 noise, dust and smell; liquid, solid and gaseous waste treatment, management and discharge to atmosphere, land, water and subsurface; contingency plans, etc.

In setting conditions, the possibility of environmental enhancement or mitigating works or compensation for environmental impacts which are not avoidable, must also be taken into account.

The Decision should also carry a disclaimer on the part of the ASCE that the Environmental Permission relates only to the environmental requirements for which the ASCE has responsibility and that the Applicant/Developer is responsible for obtaining all other necessary approvals before the work can commence.

#### 6.3 Responsibilities for monitoring

Once the Permission has been given and the conditions have been set, and the Applicant/Developer has accepted these, he/she then has the prime responsibility to ensure that the conditions are not breached. This is done through a monitoring programme which is designed to given clear indications, prior to conditions being breached.

The parameters that are to be monitored may be part of the conditions or they may be agreed between the Applicant/Developer and the ASCE. In either case it is important to select simple but indicative parameters which are easy to measure, easy to analyse and easy to interpret. They must also be able to be repeated with confidence and produce consistent and reliable results. The parameters that are monitored must also provide clear and quantifiable results that are able to be used effectively in court if a prosecution is required. In order to ensure the reliability and quality of the results, analysis of monitoring samples must be performed at laboratory facilities approved by ASCE.

While the Applicant/Developer has the prime responsibility to monitor his/her own performance, the ASCE is required to undertake surprise inspections to check the accuracy and reliability of the Applicant's monitoring.

#### 6.4 Responsibilities for action arising from monitoring

There is no value in monitoring just to record the data. Monitoring is not an end in itself, but a means to an end, and its objective is to avoid environmental impact.

Should the monitoring programme indicate that conditions of the Permission are in danger of being broken, it is the responsibility of the Applicant/Developer to advise the ASCE of such a danger and to take all practical corrective measures to avoid this. If, in spite of these corrective measures, the approval conditions are broken, the Applicant must stop the offending activity and consult with the ASCE for advice.

While the prime responsibility for monitoring will lie with the Applicant/Developer, it is the responsibility of the ASCE to check on the accuracy and the reliability of the Applicant/Developer's monitoring results. If it appears that there is a risk that the conditions might be breached, the ASCE issues a warning to the Applicant/Developer. If the conditions are being breached, the Applicant/Developer is legally obliged to stop whatever activity is causing the breach of the conditions. In such a case, the ASCE may reopen consideration of the Permission, possibly with the participation of the Environmental Review Expert Group, and the conditions attached to the Permission may be reviewed. The result of this review could go either way - the conditions could be relaxed, or they could be made stricter.

#### 6.5 Possibility of appeal

In case of disagreement, the Applicant and ASCE should do their best to resolve their differences amicably. If disagreements persist, the Applicant has the option to take the matter to the Courts. The decision of the Courts will be final.

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#### **ANNEXES**

#### 7.1 Existing EIA Legislation and Guidance in Azerbaijan

# 7.1.1 From: The Law of the Republic of Azerbaijan on the Protection of the Environment and the Utilization of Nature

#### Chapter VII: State Ecological Expertise

Art. 29 - The Aims and Tasks of the State Ecological Expertise

State Ecological Expertise is organized and implemented by the State Committee on Ecology and Nature Utilization Control of the Republic of Azerbaijan in order to check the comprehensiveness and correctness of the evaluation of the impact on the natural environment resulting from economic and other activity, the degree of ecological safety of decisions that are being made, sufficiency of the measures proposed for rational utilization of natural resources and protection of the natural environment.

State Ecological Expertise is an obligatory measure for the protection of the natural environment and precedes economic and other decisions, whose implications may have an impact on the environment.

The tasks of State Ecological Expertise are:

- to establish the level of ecological danger resulting from prospective and actual economic and other activity, which may, at present or in the future, directly or indirectly, have an impact on the state of natural environment and people's health;
- to assess compliance of planned economic and other activity with the demands laid down in environmental protection legislation, with health protection norms and regulations, standards of hygiene;
- to establish the sufficiency and justification of the envisaged measures for nature protection.

#### Art. 30 - Bases and Principles of the State Ecological Expertise

#### State Ecological Expertise is based on :

- international legal obligations of the Republic;
- principles of legality, scientific justification, openness (glasnost), integration of ecological, social, engineering, technological, technical, architectural and design related, economic and other evaluations;
- results of integrated social-ecological-economic evaluation of the impact of economic activity on the environment.

#### It follows from:

- the right of all the people to an environment favourable for health and well-being;
- the necessity to ensure the preservation, in the interests of the present and future generations, of an ecological balance, gene pool and variety of wild-life;
- presumption of potential danger deriving from unregulated utilization of nature;
- the possibility of hypothetical disasters;
- conditions, in which the protection of the natural environment is considered as inalienable part of development.

#### Art. 31 - Objects of the State Ecological Expertise

#### The objects of the State Ecological Expertise are:

- all types of pre-planning and pre-design (including state, republican and international projects) documentation for development and siting of industrial capacity of the Republic and branches of the national economy, of Nahkichevan Autonomous Republic and Nagorno-Karabakh Autonomous Region;
- feasibility study documentation (calculations), construction projects (reconstruction, extension, technical re-equipment) and liquidation of facilities and complexes of the national economy, including joint-ventures with foreign participation.
- documentation regulating economic activity in free economic zones;
- documentation relating to creation of new equipment, technologies, materials and substances, including those imported from other countries;
- legislative projects, directives, normative-legal, instructional-methodical and normative-technical documentation, regulating the utilization of nature;
- ecological situation, evolving as a result of economic activity or emergency situations.

#### Art. 32 - Organization of State Ecological Expertise

State Ecological Expertise is organized and implemented by the State Committee on Ecology and Nature Utilization Control of the Republic of Azerbaijan.

#### Art. 33 - Conduct of State Ecological Expertise

The procedure of implementation of State Ecological Expertise, content of materials presented as well as deadlines and conditions for the conduct of such expertise are determined by the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan.

#### Art. 34 - Conclusion of State Ecological Expertise

Results of materials examined are presented in the form "Conclusions of the State Ecological Expertise", and such conclusions must be implemented.

#### Art. 35 - Financing economic projects

Financing of economic projects will be opened only on condition if positive "Conclusions of the State Ecological Expertise" are available.

#### Art. 36 - Duties of the Customer and Project Developer

Customer and developer of a project of economic activity or other documentation is obliged to ensure:

- timely presentation to the State Ecclogical Expertise of documentation relating to facilities, included in the list, presented in Art. 31 of the present Law;
- that full documentation is presented to the State Ecological Expertise in accordance with the requirements;
- financing and carrying out of scientific research as well as survey work, which have been demonstrated as necessary during the conduct of State Ecological Expertise (additional surveys, control measurements, sample collection and analysis etc.)
- presentation of additional information, necessary for the work of expert commission (group, expert) at the demand of the specialist body conducting the expertise.

#### Art. 37 - Responsibility of Expert Body of the State Committee for Ecology

The expert body of the State Committee for Ecology of the Republic of Azerbaijan has full responsibility for organizing work enabling the State Ecological Expertise to check documentation relating to facilities included in the list presented in Art. 31 of the present Law, issue substantiated conclusions in accordance with the requirements of current norms, acts, nature protection legislation, for methodological management of work of subdepartmental subunits of ecological expertise in the Republic.

It is also responsible for Setting up expert commissions, groups and selection of experts, and the correct organization of their work; and assistance in providing experts with available information on the state of the environment of the region, where the project under study relating to economic activity will be implemented (or is being implemented).

#### Art. 38 - Responsibility for failure to implement conditions of state decision in the economic sphere

Managers of enterprises, organizations, institutions, ministries and departments, officials and other employees of the local government bodies will be held responsible for failure to fulfill in full conditions laid down for the implementation of economic activity, determined in appropriate projects and in "Conclusions of State Ecological Expertise", relating to these projects.

in case of breach of the above-mentioned conditions, the State Committee for Ecology of the Republic reserves the right to suspend (terminate) the process of implementation of the economic decision.

#### Art. 39 - The Aim and Tasks of Post-Project Analysis

The post-project analysis of economic activity is an important measure in the spinere of nature utilization control and its aims are as follows:

verification of forecasts;

- improvement of structures and methods of forecasting the ecological situation;
- improvement of identification procedures for basic directions in selecting impact factors;
- improvement of the monitoring system;
- improvement of ecological expertise procedures.

#### Art. 40 - Organization of Post-Project Analysis

Post-project analysis of economic activity relating to facilities with the most substantial impact on the environment is carried out according to decision of the State Committee for Ecology of the Republic, by its ecological bodies on the basis of ecological monitoring carded out by the enterprises themselves, results of inspections, visits and other operational information, provided by control and inspection bodies and sub-departmental bodies.

Post-project analysis is carried out every 3 to 5 years

The results of the post-project analysis are generalised, brought to the attention of the enterprise (when necessary in the form of obligatory instructions ordering specific measures) and the whole system of the State Committee for Ecology of the Republic.

#### Art. 41 - The Procedure of Examination of Differences of Opinion among the Parties

Differences of opinion arising between the party which has ordered the economic project and the expert body of the State Committee for Ecology of the Republic concerning the results of the State ecological expertise are examined by the State Committee for Ecology of the Republic of Azerbaijan.

The period for such adjudication in cases of differences of opinion by the State Committee for Ecology should not, as a rule, exceed 30 days.

The decision on the result of such adjudication in cases of differences of opinion may be contested in courts in accordance with the accepted procedure.

#### Art. 42 - Financing the State Ecological Expertise

The sources of financing, the volume and procedure of revenue payment for the organization of the State Ecological Expertise should ensure:

- financial self-sufficiency of the expert bodies (sub-units);
- high quality of the State Ecological Expertise and independence of its decisions;
- conditions for development and improvement of the methods of the State Ecological Expertise.

#### Art. 43 - Sources for Financing of the State Ecological Expertise

The State Ecological Expertise is financed at the expense of :

- state budget of the Republic of Azerbaijan;
- customers ordering the documentation.

The status of the State Ecological Expertise in the management of national economy development and control its control functions exclude contract relationship between the expert bodies of the State Committee for Ecology of the Republic of Azerbaijan and the customer or developer of the documentation, as well as with interested parties when payment for work carried out by the State Ecological Expertise is made.

#### Art. 44 - Procedure for Financing and Utilization of Funds for State Ecological Expertise

The procedure for financing and utilization of funds for the needs of the State Ecological Expertise is determined by the State Committee for Ecology of the Republic.

#### Art. 45 - Maintenance of the Bodies of the Ecological Expertise

The staff of the bodies of the State Ecological Expertise is maintained using operational Yunds from the State budget of the Republic of Azerbaijan.

#### Art. 46 - Payments for State Ecological Expertise

Payments for all the expenses, incurred in connection with the organization and implementation of the State Ecological Expertise are borne by the customer ordering the documentation or body/person initiating this expertise. The extent of payment to the State Ecological Expertise is determined on the basis of documentation difficulty categories and is initially set by the body which is responsible for the conduct the State Ecological Expertise of given material. The size of deductions is determined by the State Committee for Ecology of the Republic.

The payment to the State Ecological Expertise for the provision of documentation on facilities connected with foreign economic activity is made partially in convertible currency. In such cases the size of the deduction in convertible currency is determined on the basis of ratio of investment made in foreign currency or its share in the profit of an enterprise.

These monies are transferred to the account of the body of the State Committee for Ecology and Nature Utilization Control before such documentation is presented for examination.

Art. 47 - Consequences of Failure to Implement the Conclusions of the State Ecological Expertise and the Responsibility of Experts in Case of Reaching Wrong Conclusions

Managers of enterprises, organizations, institutions, other officials and employees will be held responsible in case of failure to implement the official conclusions of the State Ecological Expertise, subject to current legislation. Decisions, contradictory to the above-mentioned conclusions, are invalid and not to be acted upon.

Officials and other employees of the State Ecological Expertise are responsible for correctness, substantiation and comprehensiveness of their conclusions.

#### Art. 48 - Expert Commissions of the State Ecological Expertise

The State Ecological Expertise for documentation relating to the most important national-economic problems, state programmes, feasibility studies (calculations) and construction projects of very large and complex facilities and complexes can be produced with the help of expert commissions (groups) of scientists, specialists and representatives of the public.

# Chapter VIII: Ecological Considerations During Siting, Design Stage, Construction, Reconstruction and Commissioning of Enterprises, Installations and other Facilities

Art. 49 - General Ecological Demands during Siting, Designing, Construction, Commissioning of Enterprises, Installations and other Facilities

During siting, feasibility study of the project, reconstruction or extension of economic facilities (sites), design, construction, reconstruction, commissioning of enterprises, installations and (plants) units in industry, transport, energy generation, housing, agriculture or water facilities, during construction of power transmission lines, communication lines, pipelines, canals and other facilities which have a direct or an indirect influence on the state of the natural environment, the standards and requirements of ecological safety and protection of health of humans should be complied with, and measures for nature protection, rational utilization, restoration and reproduction of natural resources, saving of resources, regeneration of natural environment should be envisaged.

The system of ecological standards includes:

- maximum permitted concentrations of pollutants in natural environment;
- maximum permitted discharges and emissions of pollutants into the natural environment;
- Maximum permitted levels of noise, electromagnetic radiation, and other harmful physical influences as well as levels of radiation danger, health norms and standards of hygiene.

Violation of the above-mentioned standards and requirements may entail suspension, limitation or complete stoppage of operations connected with siting, design, construction, reconstruction, commissioning of ecologically harmful facilities (sites) in accordance with decisions of the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan or the State Committee for Sanitary Supervision of the Ministry of Health of the Republic of Azerbaijan or the State Committee for Monitoring Health and Safety at Work in Industry and Mining of the Republic of Azerbaijan accompanied by a simultaneous cessation in financing of the banned work by banking institutions until such time when such violations are eliminated.

Art. 50 - Development and Implementation of Projects, Which Have a Considerable Impact on the Natural Environment

Development and realization of large scale economic projects on the territory of the Republic of Azerbaijan and within the borders

of the Azerbaijan Economic Zone of the Caspian Sea which have or could have a substantial impact on the condition of the natural environment is implemented in accordance with the decision of the Supreme Soviet of the Republic of Azerbaijan, maula public enquiry.

The development and realization of economic projects involving disturbance or destruction of highly productive natural ecologic... systems and natural balance, unfavourable changes in the regional climate or microclimate, destruction of the gene pool of plants or animals, harmful influence on the ozone layer of the Earth, causing other irreversible consequences for people's health, nature' environment and life of the society, are forbidden.

# Art. 51 - Ecological Requirements During Siting of Enterprises, Installations or Other Facilities

During siting of enterprises, installations or other ecologically harmful facilities compliance with natural environment protection requirements, rational utilization, regeneration and reproduction of natural resources, taking into account the most immediate and more remote ecological, genetic, economic, demographic and ethical consequences resulting from the activity of the abovement mentioned facilities should be ensured.

Decision as to sites where enterprises, installations or other ecologically harmful facilities are to be constructed is implemented after positive conclusions of the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, Ministry of Health of the Republic of Azerbaijan, and consent of the appropriate Soviet of People's Deputies is made on the basis of a mandatory, in such cases, public discussion with the above mentioned population.

Art. 52 - Ecological Requirements in Relation to a Feasibility Study for the Construction and Design of Enterprises, Installations and other Facilities

During the preparation of a feasibility study relating to construction, reconstruction or extension of enterprises, installations and other facilities, maximum permitted standards of loads on the environment should be taken into account, as well as measures ensuring the substitution of main technologies by ecologically safe technologies, compatible with up-to-date level of scientific development, combined with improvements in the purification systems, warning systems, systems of pollution removal caused by harmful discharges, pollutants and wastes and emissions into the environment and their neutralization (rendered harmless) and utilization, applying energy and resources saving, low-level or waste-free technologies, rational utilization, regeneration and reproduction of natural resources and improvement of the natural environment.

Projects which do not satisfy ecological requirements laid down in the law, would not be approved, and their implementation should not be financed by the appropriate banking institutions.

Art. 53 - Ecological Requirements Relating to Construction, Reconstruction of Enterprises, Installations and Other Facilities

Construction, reconstruction of enterprises, installations and other ecologically harmful facilities should be implemented in accordance with approved projects, for which positive conclusions of the State Ecological Expertise have been given, with strict regard to the existing norms and regulations of nature protection, health and building.

It is forbidden to carry out preparatory work on site, construction or reconstruction of facilities before the approval of the project and transfer of the land plot in its natural state has been completed. Any changes in the approved project or the value of project's work which are detrimental to the ecological safety requirements or rational nature utilization are forbidden.

Implementation of work, envisaged in the nature protection chapter of the project, is to be executed as a priority.

Violation of requirements, stipulated in the present Article of the Law, may cause suspension of construction work until the faults are eliminated in accordance with a decision of the bodies of the State Committee for Ecology and Nature Utilization of the Republic of Azerbaijan, as well as a cessation in the financing of the work by the appropriate banking institution.

# Art. 54 - Ecological Requirements During Commissioning of Enterprises, Installations and Other Facilities

Commissioning of completed enterprises, installations and other facilities—implemented, provided all the ecological requirements, envisaged in the project, are complied with in accordance with acts of acceptance and transfer of committees in which representatives of the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, State Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan are taking part.

It is forbidden to start-up facilities without positive conclusions of the State Ecological Expertise, and lacking effective equipment and plant for purification, neutralization (rendered harmless) and utilization of harmful discharges, pollutants and waste to maximum permitted standards, lacking also in facilities for pollution control of the natural environment, and before completion, prior to the start-up, of work almed at nature protection, soil re-cultivation, regeneration of other natural resources, improvement

of the natural environment.

The chairman and members of acceptance and transfer commissions are personally responsible for compliance with the procedures of facilities' commissioning in accordance with the existing legislation.

# Chapter IX: Ecological Requirements Concerning Operation of Enterprises, Installations and Other Facilities as well as Other Activity

Art. 55 - General Ecological Requirements During Operation of Enterprises, Installations and Other Facilities

Enterprises, organizations, institutions are to ensure compliance with the laid down standards of quality relating to the natural environment on the basis of uninterrupted and effective work of purification equipment, plant and means for their control, neutralization and utilization of discharges, transfer to ecologically safe technologies; they are also to implement measures in the sphere of protection and the regeneration of the productivity of natural ecosystems.

Violation of ecological requirements during operation of enterprises, installations and other facilities may cause limitation, suspension or curtailment of the activity of enterprises, organizations, institutions in accordance with the decisions of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan or the State Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan and simultaneous cessation of financing of such banned activity by the banking institutions on the basis of these decisions until such time when the relevant body would annul its decision.

Changes in the type of activity of the ecologically harmful facilities are carried out by ministries, departments, enterprises, organizations and institutions in coordination with the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, the Ministry of Health of the Republic of Azerbaijan and local Soviets of People's Deputies.

#### Art. 56 - Ecological Requirements in Agriculture and Forestry

Enterprises, organizations and institutions as well as citizens engaged in agriculture and forestry, are obliged to develop and comply with a set of measures relating to the protection of soil, water, forest and other flora and fauna from adverse influence of elemental forces of nature, negative effects resulting from the application equipment, chemical and other substances, as well as other factors which cause a deterioration in the condition and productivity or natural, soil and plant ecosystems, causing harm to people's health and the natural environment.

Failure to fulfill the above mentioned requirements, causing harm to the natural environment and people's health may result in limitation, suspension or curtailment or ecologically harmful activity of agriculture and other facilities in accordance of the decision of the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, State Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan.

#### Art. 57 - Ecological Requirements During the Conduct of Land-Reclamation Work

During land-reclamation work operation of land reclamation systems measures for the preservation of water balance in natural water facilities are to be implemented as a matter of priority, as well as rational utilization of water and land resources, implementation of measures aimed at prevention of underflooding, waterlogging, salinisation, alkalinization, soil erosion, destruction of spawning grounds, foraging areas, areas of wintering and migration of fish and other harmful effects for the natural environment.

Failure to comply with the above requirements may result in suspension of land reclamation operation and land-reclamation work until such time when such deficiencies are eliminated, or their cessation in accordance with the decision of the bodies of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, with a simultaneous cessation of financing of work that has been banned by the appropriate banking institutions.

#### Art. 58 - Ecological Requirements Relating to Energy-Generating Facilities

During siting, design and construction of hydro-electrical plants and other power generating facilities, the real needs for electrical power in the Republic of Azerbaijan, relief of the locality for siting of such a facility, measures for maximal protection of land, forest, mineral deposits, settlements, historical, natural history and cultural monuments, effective protection of fauna, including fish stocks, timely utilization of fertile soil layers and timber when clearing and filling the water reservoir bed and measures aimed at preventing negative changes in the natural environment should be taken into consideration.

Siting of nuclear power energy plants is banned in the Republic of Azerbaijan.

During design, construction, commissioning and operation of thermal power stations it is necessary to envisage and ensure the

implementation of measures aimed at equipping such plants with highly effective filters and other means of purification of damaging discharges and emissions, as well as the use of ecologically safe fuels.

Ministries, departments, enterprises, organizations, institutions are obliged to develop the introduction and widespread application of non-traditional, ecologically clean and safe type of energy (solar, wind, tidal, bio-energy, etc).

#### Art. 59 - Ecological Requirements Relating to Use of Radioactive Materials

Enterprises, organizations and institutions are obliged to comply with rules for production, storage, transportation, utilization, disposal and burial of radioactive materials (sources of ionizing radiation, nuclear materials), prevent exceeding the maximum permitted radiation levels, and, in cases when such levels are exceeded, to inform immediately authorities implementing control and ensuring radiation safety in the Republic and to take steps to liquidate centres of contamination.

Enterprises, organizations, institutions which fail to ensure compliance with the rules relating to handling of radioactive materials, following the decision of the State Committee for Monitoring the Safety at Work in Industry and Mines of the Republic of Azerbaijan as well as the bodies of State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan and the Ministry of Health will either lose the right to utilize such materials or their activity relating to the use of such materials will be suspended until such time when these deficiencies will be eliminated.

Import for the purpose of storage and burial, as well as storage and burial in the Republic of Azerbaijan of any radioactive waste from other regions or from abroad, is forbidden.

#### Art. 60 - Ecological Requirements Relating to the Utilization of Chemical Materials

Enterprises, organizations, institutions, their officials and citizens are obliged to observe regulations relating to the production, storage, transport and application of chemical materials, used in agriculture for plant protection, growth enhancement, and as mineral fertilizers must fulfill standards laid down for their utilization and take steps to prevent and eliminate harmful effects for human health and for the natural environment resulting from their application.

On the territory of the Republic of Azerbaijan and within the borders of the Azerbaijani economic zone on the Caspian Sea the use of toxic chemical preparations which have an active impact on human organism and the natural environment as well as preparations for which no methods exist to determine their content in the environment, is forbidden.

Violation the rules for application of chemical materials may result in a ban on their production, storage, transport or application of appropriate chemical preparations in accordance with decision of the authorities on the Ministry of Health of the Republic of Azerbaijan or the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan.

#### Art. 61 - Protection of Environment from Harmful Biological Impact

Enterprises, organizations, institutions which have or may have a biological impact on the natural environment are obliged to ensure a biological impact on the natural environment are obliged to ensure biologically harmless methods of production (manufacturing), transport, utilization and disposal of biological species or microorganisms, insects and substances, develop and implement measures for the prevention of accidents and disasters and for the prevention and liquidation of harmful biological impact on the natural environment and human health.

Monitoring, recording or sources and control over the level of biological impact on the population and the natural environment is implemented by the authorities of the Ministry of Health of the Republic of Azerbaijan.

Exceeding laid down maximum permitted levels of impact on the natural environment, breaches in the procedure's relating to storage and utilization of biological species or microorganisms, insects and substances may result in the suspension or stoppage in the operation of enterprises and other facilities which prove to be the sources of such pollution, in accordance with the decision of the authorities of Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan.

#### Art. 62 - Protection of Environment from Noise, Vibrations, Magnetic Fields and Other Harmful Physical Influences

Local Soviets of People's Deputies, executive authorities, enterprises, organizations, institutions as well as citizens are obliged to take necessary steps in order to warn against and prevent harmful industrial and domestic noise, vibrations, harmful effects of magnetic radiation and other harmful physical influences on the natural environment.

Failure to comply with the standards on the territory of the Republic of Azerbaijan and within the Azerbaijani economic zone of the Caspian Sea may result in the suspension or stoppage of the operation of the enterprise, workshops, units other plant and equipment, using transport, other sources of harmful noise, vibrations, magnetic fields and other harmful physical influences until

such time when these deficiencies are eliminated, in accordance with the decision of the authorities of the State Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan, State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, Ministry of Internal Affairs of the Republic of Azerbaijan, local Soviets of People's Deputies and executive Authorities.

#### Art. 63 - Protection of Natural Environment from Industrial and Domestic Waste

Local Soviets of People's Deputies, executive authorities, enterprises, organizations, institutions as well as citizens should take effective measures in order to reduce the creation, neutralization, processing, utilization, storage or burial of industrial and domestic waste. Local Soviets of People's Deputies are obliged to take decisions on the selection of sites for storage and burial of waste, previously agreed upon with the authorities involved, in the protection of the natural environment, Sanitary Inspectorate, geological agencies. Dumping of waste and untreated waters containing waste products into water storage, underground horizons, in the area of settlements, forests, agricultural areas and other land plots is forbidden.

Neutralization of toxic waste using special equipment as well as their burial at special sites is implemented in accordance with a licence issued by State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, agreed upon with the authorities of the State Sanitary Inspectorate of the Ministry of Health of the Republic of Azerbaijan and other interested parties. Burial of toxic waste on the territory of settlements, near towns and other settlements, in natural water reservoirs and waterways, in the sea, in rest, recreational and health-zones and other places where this might create danger to the health of the population and the state of the natural environment is forbidden.

Failure to comply with the above mentioned regulations may result in limitation, suspension or stoppage in the operations of the enterprises generating such waste, in accordance with the decision of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, Ministry of Health of the Republic of Azerbaijan or local executive authorities.

#### Chapter X: Participation of the Population in Nature Protection

#### Art. 64 - Forms of Population's Participation in Nature Protection

The population takes part in nature protection through personal work (voluntary) to implement measures aimed at prevention and elimination of violations of natural protection legislation, by voluntary contributions to funds for nature protection, by taking part in nature protection work organized by workers' collectives and public ecological organizations.

#### Art. 65 - Powers of Public Ecological Organizations

Public ecological organizations, other public ecological organizations and associations implementing ecological functions have the right:

- to develop, approve and engage in the promotion or their ecological programmes; to defend the ecological rights and interests of the population and individual groups within the population; to develop ecological culture of the population, to attract, on a voluntary basis, the population to take an active part in nature protection;
- using their own or obtained funds and labour participation of the population to carry out work to protect, regenerate and
  reproduce natural resources, to improve and enhance the natural environment, to conduct their own research or
  participate in checks organized and implemented by state bodies for nature protection aimed to control the compliance
  by enterprises, organizations, institutions and citizens of measures for nature protection in their fight against violations
  of the environmental legislation, create public funds for nature protection and use these funds for the implementation
  of ecological measures;
- to take part in the State Ecological Expertise in siting, design, construction, commissioning of ecologically hazardous and harmful enterprises, installations and facilities, to organize and implement public ecological expertise, to raise, in accordance with the established procedure, questions pertaining to annulment of decisions on siting, construction or running of ecologically harmful facilities, on limiting, suspending, stopping or changing the profile of their operations;
- to request current, comprehensive and true information on the condition of the natural environment, nature protection measures and on ensuring the rational utilization of natural resources, on the basic trends, state plans, programmes, measures on nature protection, to obtain and disseminate these materials among the population;
- to demand the appointment of the State Ecological Expertise and the conduct of a general discussion on decisions relating to siting industrial capabilities, branches and facilities of national economy; organize and run meetings relating to questions of nature protection and nature utilization, publish materials presenting the ecological point of view in the press, on the radio and TV;
- to sue in court or to go to arbitration to obtain reparations for damage caused to the health and property of citizens and natural environment as a result of breaches of nature protection legislation, if such actions were not undertaken by state authorities for the purpose of nature protection in accordance with the laid down procedure.

Ecological activity of public organizations and other social associations is carried out in accordance with their statutes and current legislation of the Republic of Azerbaijan.

Art. 66 - Rights and Duties of Citizens in the Sphere of Nature Protection and Nature Utilization

The citizens of the Republic of Azerbaijan have the right:

- to take part in nature protection applying their own efforts to save and multiply the natural treasures of Azerbaijan;
- to set up public organizations, funds and other associations in the sphere of nature protection, and to be members of such organizations;
- to take part in enquiries on legislative and other acts, put to popular judgement (referendum), to write letters, send petitions, complaints, applications and proposals concerning nature protection and nature utilization;
- to demand from relevant authorities to release current, comprehensive and true information on the condition of the natural environment and on nature protection measures;
- to put forward proposals to reverse decisions on siting, design, construction, reconstruction and operation of ecologically harmful facilities, limiting, suspending, stopping the activity of enterprises, installations and other facilities which have a harmful impact on the natural environment and human health;
- to seek through courts redress from enterprises, organizations and citizens for causing damage to their health and property as a result of unfavourable influence on the natural environment.

Citizens domiciled on the territory of the Republic of Azerbaijan are obliged to protect nature and natural resources, rationally use natural resources granted to their use and comply with the requirements of nature protection legislation.

Citizens domiciled on the territory of the Republic of Azerbaijan implement their rights and duties in the sphere of nature protection in accordance with the current legislation of the Republic of Azerbaijan.

Art. 67 - Guarantees for the Rights of Organizations and Citizens in the Sphere of Nature Protection

The Republic of Azerbaijan guarantees to public ecological organizations, other associations which implement ecological functions and to citizens the implementation of their rights in the sphere of nature protection in accordance with the current legislation of the Republic of Azerbaijan.

#### Chapter XI: Ecological Upbringing, Education and Scientific Research

Art. 68 - General, Comprehensive and Continuous Character of Ecological Upbringing and Education

In order to raise the level of ecological culture in society and improve professional training of specialists in the Republic of Azerbaijan a system of general, comprehensive and continuous upbringing and education is established. This system encompasses pre-school and school education, professional training of specialists in secondary and tertiary education and in-service training to improve qualifications.

Art.69 - Obligation to Teach Ecological Studies in Educational Institutions

In order to master a minimum of ecological knowledge necessary for the formation of ecological culture of citizens in all secondary and tertiary educational institutions operating on the territory of the Republic of Azerbaijan, irrespective of their type and direction, the teaching of the basics of ecological studies and culture is envisaged.

In accordance with the type of secondary special and tertiary educational institution teaching of specialist courses on nature protection and rational nature utilization is envisaged.

Art. 70 - Professional Ecological Training of Managers and Specialists

Managers, other officials and specialists in state enterprises, organizations and institutions connected with activity which has a harmful impact on the natural environment and human health or with nature utilization or executing functions directly or indirectly linked with nature protection or the organization of nature utilization are obliged to acquire the necessary ecological (background) preparation, which is taken into account when appointments, assessment of qualifications and re-assessment of qualifications are carried out.

In order to educate in the spirit of careful attitude towards the nature of Azerbaijan, rational utilization of resources of the country, widespread propaganda of ecological knowledge and culture as well as nature protection legislation of the Republic of Azerbaijan is carried out.

Propaganda of ecological and ecological egal knowledge and culture is the responsibility of the authorities of the State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, State Sanitary inspectorate of the Ministry of Health of the Republic of Azerbaijan, other state and social bodies and organizations, the press, radio, TV, other mass media, museums, exhibitions and other cultural institutions.

#### Art. 71 - Scientific Research in the Sphere of Ecology

The Academy of Sciences of the Republic of Azerbaijan, specialist scientific-research organizations, Ministry of Health of the Republic of Azerbaijan, State Committee for Ecology and Nature Utilization Control of the Republic of Azerbaijan, ministries and departments of the Republic of Azerbaijan, tertiary educational institutions, on basis of agreements, organize and carry out scientific research in the sphere of nature protection, rational utilization, regeneration and reproduction of natural resources, improvement of the natural environment, economy of resources, support of favourable regime of natural complexes and ecosystems, warning on negative influences of the environment on humans and animals, create necessary conditions for effective scientific research and implementation of results obtained through such research.

In order to ensure a scientific base for nature protection and nature utilization the following are priority scientific and ecological studies:

- development of a scientific basis for the Republic's policy in the sphere of nature protection, creation of advanced waste free or low waste technological processes and modern technical resources which ensure ecologically safe industrial, transport, agricultural and other enterprises, installations and facilities and while operating such facilities;
- ensure nature utilization which is economically effective, rational and resource-saving;
- creation of means for continuous monitoring of the natural environment conditions, industrial management, operating equipment safely and without accidents;
- determination of acceptable ecological load expeted by processes taking place in natural environment under the influence of anthropogenic (man made) activity in a given territory;
- restoration of the quality of the environment and natural resources.

Scientists and specialists from scientific institutions take part in the development and implementation of integrated, purposeful ecological programmes, become members of expert and social councils for nature protection, provide opinions for ecological expertise on projects, render help in solving practical questions of rational utilization of natural resources, take part in the formation of ecological culture of the society and carry personal responsibility for scientific results of their research and expert conclusions.

Ministries, departments, associations and enterprises, independently of their departmental hierarchy, who prove to be polluting the natural environment, are obliged, using the resources of scientific, research and project-design organizations, on the basis of direct agreements, develop and implement resource-saving and ecologically clean technologies or acquire such technologies for introduction into the production process.

#### Chapter XII: Ecological Emergencies

#### Art. 73 - Prevention of Accidents and Elimination of Their Ecologically Harmful Effects

During design and operation of economic facilities connected with harmful impact on the natural environment, measures for the prevention of accidents and for the elimination of their ecologically harmful effects are developed and implemented.

In order to react effectively to ecological emergencies causing harmful after-effects to the natural environment, local, regional and republican plans are developed. These plans are approved by the appropriate Soviets of People's Deputies and therein are envisaged tasks and measures for mobilising resources and means at the disposal of ministries, departments, enterprises, organizations, institutions and specialist services for the prevention of ecological emergencies and elimination of their effects.

In case of accident an enterprise, organization or institution is obliged immediately to undertake steps to deal with the situation according to approved plans for action in case of an ecological emergency. At the same time they have to inform, without delay, the Local Soviet of People's Deputies, state supervisory organizations controlling safety at work in industry and mining as well as state organizations of nature protection, state samilarly authorities and the population announcing what measures are being taken to deal with it. The above mentioned authorities take the necessary steps to deal with the accident and its after-effects.

The enquiry into the causes of the accident and elimination of its after-effects in the Republic is carried out by the Commission of the Cazinet of Ministers of the Republic of Azerbaijan for Emergency Situations. Apart from that state, emergency, special, including ecological, and other commissions are set up.

Art. 74 - Duties of an Enterprise to Ensure Readiness for, and Elimination of, Ecological After-Effects of an Accident

Enterprises, organizations and institutions which may, as a result of an accident, cause harm to the natural environment and human health are obliged:

to have a plan of action for ecological emergencies;

- to establish and keep in a state of readiness emergency services, equipped with technical means to eliminate the aftereffects of an accident;
- to carry out systematic inspections to test employees compliance with safety regulations and technological discipline;
- to carry out, according to a special programme, training of personnel for the elimination of accidents' after-effects;
- to give unhindered access to the territory and acquaint with the necessary materials, representatives of the state inspectorate for facilities connected with harmful influence on natural environment and representatives of state authorities of nature protection and sanitary inspectorate;
- in good time, inform state authorities on proposed changes in technological processes, reconstruction, repair work on facilities connected with harmful influence on natural environment as well as on any changes in handling dangerous materials.

#### Art. 75 - Areas of Ecological Emergency and Ecological Disaster

The following are declared areas of ecological emergency - sections of territorial waters or air space where, as a result of economic or other activity, destructive influence of elemental forces of nature or where accident or disaster took place, long-lasting harmful changes have occurred which cause illnesses among the population and threaten the health of the population, the condition of natural ecological systems and complexes, gene pools of plants and animals.

Sections of territory, water and air space, where as a result of economic or other activity or the destructive forces of nature, long-lasting and irreversible changes to the natural environment have taken place, connected with the disruption of ecological balance, destruction of natural ecological systems, deterioration of soil, flora and fauna causing illnesses among people, are declared zones of ecological disasters.

Zones of ecological emergency and ecological disasters are declared and eliminated in accordance with the decisions of the Supreme Soviet of the Republic of Azerbaijan according to the initiative of the population, People's Deputies, public organizations, on the basis of conclusions drawn by state or social ecological expertise.

In zones of ecological emergency any activity which may harmfully affect the natural environment is forbidden, work in enterprises, organizations, institutions, workshops, units, plants which may have harmful effect on human health and natural environment is stopped, individual ways of nature utilization are limited and operative steps for regeneration and reproduction of natural resources are undertaken.

In zones of ecological disaster operation of enterprises is stopped, apart from enterprises serving people living in this area, construction work, reconstruction and extension of new economic facilities is stopped, all types of nature utilization are considerably limited, operative steps are undertaken for regeneration and reproduction of natural resources and improvement of the natural environment.

Financing measures aimed at improvement in zones of ecological emergencies and ecological disasters, in the first instance, are carried out at the expense of ministries, departments (including central ones), enterprises, organizations or institutions which have caused the accident or disaster, as well as using funds from the state budget and nature protection funds, especially set aside for this purpose.

7.1.2 Provisional Instruction on Procedure of Estimation of Environmental Impact Assessment when Developing Feasibility Studies and Projects for Construction of Economic Objects and Complexes

State Committee of the USSR on Environmental Control

Main State Epological Expertise

Standards and Regulations on Environmental Control with Respect to Economic Activity

Vaiid until 01-01-92 Moscow, 1990

- 1. General
- 1.1 This Instruction has been prepared -
- In order to introduce into the practice of design process investigation of interrelationship of proposed solutions with specificities of ecological conditions and socio-economic structures formed in the location of economic objects;
- As a supplement to existing documents governing implementation of economic activity and providing observance of legislation in the area of environmental control when designing:
- It is intended for the customer and designer of documentation, and specialized organizations enlisted to work on EIA, and expert bodies of the USSR State Committee of Environmental Control;
- It defines organizations, procedure and methods of implementation of the EIA process when developing drafts and design documentation; and responsibilities of parties for quality of EIA work and study of its results; and general principles and criteria of estimation, form of presentation of EIA results within the framework of Feasibility Study document and construction projects;
- It establishes general requirements of expert bodies of the USSR State Committee of Environmental Control with respect to content and essence of documents concerning environmental impact assessment (EIA) for proposed projects;
- It might be used by specialists when developing methodology of ELA and conducting respective studies; local administration and executive power bodies making decisions as per proposed projects; and by public organizations and citizens during negotiations of design drafts.
- According to the present instruction, new normative and methodical documents on planning and design in various areas of economic and other business activity should be developed or existing ones should be revised. Documents reflecting specific industry and territorial features when developing projects and controlling content, volume and form of presentation, results of EIA in pre-design and design documentation must be agreed upon with the authorities of the State Committee of Environmental Control.
- 1.3 EIA is determination of character and degree of danger of all potential kinds of impact on environment by proposed economic activity and estimate of ecological, social and economic consequences of the implementation of the project.
- 1.4 EIA is an obligatory element at all stages of development of designs for economic and other activity which could affect the state of natural resources, health and living conditions of the present and future generations.

EIA documentation should pass State Ecological Expertise with feasibility studies and design estimates.

- 1.5 EIA is simed at the prevention of environmental degradation, restoration of ecological systems damaged as a result of previous economic activities establishment of ecological-economic balance of future economic development, creation of favourable living conditions for people, working out measures reducing the level of ecological danger in planning activity and must be done before decisions about implementation of one or other project are taken.
- 1.6 Main principles of EiA are the following:
- 1.6.1 Integration integral study of technical, ecological, social and economic parameters of economic projects;
- 1.6.2 Various options technical decisions providing implementation of ecological requirements;
- 1.6.3 Accounting for regional specificities from the point of view of the state of the ecological system and its stability in terms of predicted impact; prospects of socio-economic development of the region; and, historic, cultural, ethnic and other interests of the population of the region.
- As a result, the EIA allows to determine and recommend for approval design solutions which are not dangerous for despie's health with direct, indirect, cumulative and other kinds of impact, accounting also for distant future consequences; are not connected with production of commodities ecologically dangerous when being used, processed and destroyed; will not lead to irreparable or crisis proportion environmental changes during construction, operation and liquidation of the project.

- 2. Responsibility for Organization, implementation and Study of the EIA Results
- 2.1 The customer under the project will be responsible for organization and implementation of the EIA during development of feasibility study and design estimate documents.

The customer provides financing of EIA and studies connected with it. Financing of the EIA should be provided for in the cost estimates for development of feasibility studies and designs.

- The EIA and implementation of its results will be done by the body developing the documents, with participation, when required, of specialized organizations. The body developing the documentation is responsible for its completeness, quality of the EIA and reliability of the information used when carrying out the EIA process.
- 2.3 Before the documents are sent to the State Ecological Expertise, the customer and developer will organize a preliminary study and discussion of the EIA results by a group of experts within the limits of expertise of the feasibility study and design documents; and by representatives of the public whose interests could be affected by the implementation of the project.
- 2.4 State Ecological Expertise of pre-design and design documents is the final stage of study of the EIA results. (Regulations, procedures, organization forms of the State Ecological Expertise and also the terms of its implementation are specified in Provisional Instruction on procedure of implementation of the State Ecological Expertise of economic projects by the State Committee of Environmental Control).
- 2.4.1 Expert bodies of the USSR State Committee of Environmental Control which implement State Ecological Expertise are responsible for accurate, fair and prompt study of the results of the EIA.
- 2.4.2 Financing of State Ecological Expertise will be in accordance with established orders.
- 3 General Requirements of EIA Content
- 3.1 EIA includes the following steps:
- accumulation and analysis of necessary information;
- determination of sources, kinds and objects of impact;
- prediction of changes in the state of the environment;
- estimation of possible emergency situations and their consequences;
- estimation of ecological, social and economic consequences;
- determination of ways of reduction of negative impacts on environment and public health;
- determination of residual negative effects and methods of their control;
- accomplishment of ecological-economic estimate of the project;
- analysis and selection of alternative options of the project implementation, development of new options.
- 3.2 In the course of the EIA process the following information is accumulated and analysed:
- 3.2.1 about methods of implementation of proposed activity, including characteristics of proposed technical and technological decisions in construction, operation and liquidation of the object, sources of raw materials and power, required production infrastructure:
- 3.2.2 about amounts and characteristics of wastes defined on the basis of material balance of production through stages of "life cycle" of the object for various working regimes;
- 3.2.3 about state of the environment at the present moment for various options of location of the object, including characteristics of air and water space, lands allotted for permanent and temporary use, description of climatic, geological and other environmental conditions, flora and fauna, recreation and specially protected areas and other ecological characteristics.
- 3.2.4 about existing socio-economic structure in the areas of location, including social development of the territory, etc.
- 3.3 Based on available information (para 3.2) sources, kinds and objects of impact through options of proposed activity.
- 3.3.1 Number and specific kinds of impact subject to estimate may be determined by preliminary study in order to find out
  - the objects of impact
  - the scale of impact
  - geography of impact
  - dynamics of impact (in respect of time)
  - probability of impact

The process of search includes preparation of auxiliary information related to the project, accumulation and analysis of information on ecological consequences of similar kinds of economic activity, systemisation of results of pre-design analysis and analysis of ecological situation.

When carrying out preliminary studies methods of comparative analysis, expert estimates, analysis of previous experience, etc.

- Revealed impacts are estimated in terms of : 3,3.2
- boundaries of impact geography, number of objects of impact:
- intensity change of level of air pollution, contamination of water, noise level, etc.
- duration change of character of impact with time, short, continuous, periodical or emergency.
- Main objects of impact are specified on public health, state and character of use of natural resources on the territory, 3.3.3 eta.
- Characteristic of impact is given direct, indirect, cumulative, etc (accounting for possibility of impact consequences after certain time period).
- Naw state of environment is predicted. Changing parameters are determined by way of superposition of revealed kinds of impacts on the predicted state of the environment without the project.
- Estimate of probable emergency situations and their consequences includes an analysis of scenarios of development, of emergency situations and probability of their appearance; and revealing possible causes of accidents (technical faults of personnel, fire, acts of God, etc).
- Possibilities of reduction of impact using special technical means of protection for people, animals, plants, territories are determined. Measures on implementation of low-waste technologies, burial and destruction of all kinds of wastes, prevention of emergency situations, localization and liquidation of their consequences.
- When implementing the EiA, the following consequences of the project are determined: 3.7
- most serious (in terms of level, some, danger, etc) for the health of people (including those which might have consequences in the future);
- 3.7.2 for environment, its elements, ecological systems; new state is estimated from the point of view of the fulfilment of the existing and predicted ecological requirements.
- socio-economic these include changes in living conditions of populations including employment, demographic changes, change of social infrastructure (accounting for aesthetic, cultural, ethnic and other aspects).
- Residual aspects and methods of control are determined. Within general technological schemes, system of control over wastes is envisaged. The general scheme includes systems of alarm, signalization and necessary protective measures (Other factors are estimated according to special instructions of the State Committee of Environmental Control, or by request of the project customer).
- Ecological-economic estimate of design solutions is carried out, accounting for possible consequences, and also analysis of public expenditures and results of proposed options of the project implementation. Results of calculations form the basis for ecological-economic study.
- Economic calculations during implementation of the EIA are done as follows: 3 9.1
- total public expenditures on implementation of proposed options accounting for all revealed consequences are
- additional (private) estimates are done, depending on objectives of calculations and established positions, e.g. selffinanced profits, compensation payments, expenditures on liquidation or softening of certain negative impacts, etc.
- general ecological-economic estimate is done where pluses and minuses are summed up in terms of costs,
- results of estimate are supplied with comments in accordance with a scale of public interests, using indices which have no cost representation. (Indices which have no real monetary equivalent, are not reflected in investment flows, are used for substantiation of proposed option, in kind, and/or are supplied with respective comments. If cost of losses is determined by the amount of possible socio-economic damage from ecological consequences, then when estimating and comparing options, results of such calculations are used independently, as stochastic (probability) category are not mixed in one and the same calculation with public costs of the project. This does not pertain to indices of expenditures on measures of liquidation/softening ecological consequences envisages in the present project, or if implementation of these measures is one of
- At the stage of feasibility study approximate calculations of profitability of the object accounting for dynamics of process of raw materials, materials, products, change of supply sources, etc. are done. Profitability of the enterprise is calculated within th. Imits of self-financed independence, using existing tariffs, process, etc. Calculations shall include costs of production, and sale of products, maintenance and use of production objects and social infrastructure which are on balance of this specific object.

Costs of natural resources and services of outside organizations dealing with processing and burial of wastes, are estimated at established tariff rates.

3.9.3 Efficiency of expenditures on implementation of the project, accounting for all consequences, and also possibility of refusal of the project.

#### 4 Presentation of the results of the EIA

- 4.1 In feasibility studies and design-estimate documents, results of the EIA must be given in the special section on Environmental Impact Assessment. With this section, the following copies should be enclosed -
- agreement with the Ministry of Public Health of the USSR and bodies of State Control responsible for use of natural resources:
- conclusions of the expertise body of the respective industry;
- materials of discussions of the EIA draft with the public, with a summary of the main disagreements.
- 4.2 The section on Environmental Impact Assessment should include:
- names of organizations participating in the implementation of the EIA and the preparation of its results;
- brief statement about demand in products of the object, objective and necessity of implementation of the project, references to earlier documents which served as a basis of the project (submitted for ecological expertise);
- specifying interests of public and individual groups, accounted for in the course of development of proposed project;
- substantiation of the principle of location of the object and correspondence of chosen and alternative sites to the schemes of regional development;
- list of alternative options studied in the course of pre-design study;
- boundaries of conducted studies, necessary references to information sources used in the EIA process;
- list of ecological restrictions used in the development of the design;
- principles of formation of criteria of ecological and socio-economic estimates;
- brief description of EIA (according to basic requirements of section 3 of these instructions), with tables and matrices and other materials illustrating conclusions and substantiation of the project;
- list of alternative methods of reduction of negative effects on the environment, considered but not included in the chosen option, with indication of their costs;
- programme of further control of safety of produced commodities, with indication of area and restrictions on its use, and
  also possible ways of neutralization after use.
- 4.3 EIA should be brief and its terms must be clear even to the general public (non-specialist).

information given in the section Environmental Impact Assessment must reflect consequences of implementation of proposed option and be adequate enough, so when state ecological expertise is carried out, it would allow to control conformity of technologies, etc, to ecological safety requirements, correspondence of the project with accepted ecological standards; to make comments about accuracy of data obtained in the EIA process and final conclusions.

## 7.2 Official Application Form



### AZƏRBAYCAN RESPUBLİKASİ

### DÖVLƏT EKOLOÇİYA VƏ TƏBİƏTDƏN İSTİFADƏYƏ NƏZARƏT KOMİTƏSİ

# APPLICATION FOR AN ENVIRONMENTAL PERMISSION

AΝ	APPLICANT INFORMATION	
ويحو	WELL FIOWING Hat DIVING CO.	
NAM	E OF COMPANY OR ORGANIZATION:	
STR	EET ADDRESS:	
	•	managar i
		•
B00	STAL ADDRESS :	i
rU3	TAL ADDINESS.	
	EDHONE: FAX:	
TEL	EPHONE: FAX:	
NIA I	ME OF PERSON RESPONSIBLE FOR PROJECT :	
NAM	TE OF FERSON RESPONSIBLE FOR FROSEST.	
	SON AUTHORIZED TO LODGE APPLICATION:	
7ER	SON AUTHORIZED TO LODGE APPLICATION.	
	Signature Date	
Desi	ition :	
, 031		OFFICIAL SEAL

B) LOCATION AND ENVIRONMENT
DISTRICT: CITY / TOWN / VILLAGE:
STREET ADDRESS :
LEGAL DESCRIPTION AND SIZE OF THE LAND :
DESCRIBE THE PHYSICAL ENVIRONMENT IN THE VICINITY OF THE PROJECT : e.g. geological features, landscape, soil and ground stability, groundwater, etc.
Continue on a separate sheet if necessary
DESCRIBE THE ECOLOGICAL ENVIRONMENT IN THE VICINITY OF THE-PROJECT: e.g. fòrests, other trees and plants, animals, rivers, lakes, wetlands, protected areas, Caspian coast note especially the presence of rare, threatened or endangered species.
Continue on a separate sheet if necessary
DESCRIBE THE SOCIAL ENVIRONMENT IN THE VICINITY OF THE PROJECT: e.g. nearest houses, nearest school, nearest main road, any community facilities, etc.
Continue on a separate sheet if necessary
TTACH A SKETCH MAP SHOWING AS MANY OF THE ABOVE FEATURES AS POSSIBLE. NCLUDE PHOTOGRAPHS AND/OR ARTIST'S IMPRESSIONS.

C) PROJECT INFORMATION - CONSTRUCTION PHASE	
EARTHWORKS AND SITE PREPARATION :	
BUILDING MATERIALS (including source and mode of transport)	
	٠
CONSTRUCTION LABOUR FORCE (including numbers and housing, etc)	
SCHEDULE OF WORK (including starting date and duration of construction phase)	
SCHEDOLE OF WORK (including starting date and datation of sense to the contract of	
WASTE GENERATION, BY-PRODUCTS	
i	
Continue on a separate sheet if necessary	

D)	PROJECT INFORMATION - OPERATIONAL PHASE
	RIBE THE TECHNOLOGY TO BE USED IN THE OPERATIONAL PHASE : f this is a new technology for Azerbaijan)
Contin	ue on a separate sheet if necessary
11	RIBE THE INPUTS TO THE PROCESS :  IATERIALS (including source and mode of transport)
WATE	R INPUTS (including volumes, source, mode of transport and how it will be used)
ENERG	Y INPUTS (including quantities, source of supply and how it will be used)
DESCR FINAL F	BE THE OUTPUTS OF THE OPERATIONAL PHASE : RODUCTS OF THE PROJECT :
LIQUID	WASTES (including volumes, rates, quality, proposed treatment & discharge)
SOLID V	/ASTES (including volumes, rates, quality, proposed treatment & discharge)
BASEOL	S WASTES (including volumes, rates, quality, proposed treatment & discharge)

E) COSTS OF THE PROJECT	
FINANCIAL COSTS: LAND VALUE & SITE PREPARATION	
ENGINEERING AND ARCHITECTURAL PLANS & DESIGNS	
LABOUR & CONSTRUCTION (including sub-contracts)	
TECHNOLOGY HARDWARE	
ENVIRONMENTAL WORKS	
ENVIRONMENTAL COSTS & PLANS FOR MINIMIZING AND COMPENSATING : IMPACTS ON THE PHYSICAL ENVIRONMENT (LAND, ATMOSPHERE, WATER) :	
IMPACTS ON THE ECOLOGICAL (BIOLOGICAL) ENVIRONMENT :	:
IMPACTS ON THE SOCIAL ENVIRONMENT (PEOPLE, COMMUNITIES, WAY OF LIFE) :	
,	
	į

F) EXTENT OF PUBLIC CONSULTATION TO DATE						
ŧ.	DESCRIBE ANY PUBLIC INFORMATION AND CONSULTATION ACTIVITIES TO DATE: (attach a copy of the advertisement of this Application, any public meetings, etc)					
;			CALCONOCA			
		SE OF THE STATE COMMITTEE	ON ECOLOGY			
APPLICATION RECEIVE	:D AT (Office)					
RECEIVED BY :						
ON (Date) :						
APPLICATION FEE OF	••••					
ENCLOSURES AND ATT	ACHMENTS:					
Maps		Plans				
Photographs		Artist's drawings				
Technical drawings		Copy of advertisement				
RECEIPT ISSUED ON (Date):						
SY (Name of Officer) :						



# AZƏRBAYCAN RESPUBLİKASİ

# ÖVLƏT EKOLOÇİYA VI TƏBİƏTDƏN STİFADOYƏ NƏZARƏT KOMITƏSİ

	RECE N EAR AN EN	ipt for Vironmental pe	RMISSION
	THAT THE AZERBAIJAN I URCES UTILIZATION HA	ATATE ON MITTEE ON ECOLO	OGY AND CONTROL
APPLICANT:			
ADDRESS:			
PERSON RESPONS	IBLE:		
AN APPLICATION F	OR ENVIRONMENTAL P	ERMISSION RELATING TO A P	
TOCETHER WITH	THE APPLICATION FEE	OF MA	NA+
	Signed		Official Seal

# 7.3 Addresses and contact numbers of the Azerbaijan State Committee for Ecology and Control of Natural Resources Utilization

Head Office:

istiglariyat Street, 31

370001, BAKU

Telephone +994-12-92 60 67 or 92 68 68

Fax +994-12-92 59 07

Branch Offices:

Oktyabrskaya Street, 1 373630, NAKHICHEVAN Telephone 43 909, or 44 602

Nagornaya Street, 48 370603, BAKU Telephone 62 85 87, or 62 85 80

I. Gaibov Street, 12 373312, ALI BAYRAML! Telephone 43 771

Nizami Street, 77 374420, BARDA Telephone 21 240

28th May Street, 12 374150, GABALA Telephone 35 267

Biyan Street, 83 574724, GANDJIA Telephone 47 916, or 43 708

Dada-Gorgud Street, 2 374601, GERANBOY Telephone 51 167

R. Isayev Street, 42 374220, GEOKCHAY Telephone 53 639, cr 52 530

Vurgun Street, 60 373110, KUSARI Telephone 54 091

Sabir Street, 78 374840, KAZAKH Telephone 23 668, or 21 249

D. Mamedkulizadeh Street, 40 374551, ZAKATALA Telephone 53 246

Lenin Avenue, 123 374246, ISMAILLI Telephone 53 279 M.H. Razumadeh Street, 1 Khurdalan Village 373250, BAKU Telephone 42 66 72, or 42 36 42

M. Razulzaden Street, 395 Port-liylon 373730, LENKORAN Telephone 42 245

Vurgun Street, 5 375200, SUMGAIT institute for Neftekhimautomat Telephone 52 912, or 56 983

A. Asianov Street, 4 273910, MASALLI Terephone 53 604

Tabris Street, 19 374311, MINGECHAUR Telephone 46 512, or 42 497

Salyan Post Office, 3 373803, SALYAN Telephone 53 273

Azer Avenue, 31 373340, SABIRABAD Telephone 51 175

Narimanov Street, 68a 375450, KHACHMAS Telephone 32 050

Azizbekov Street, 7 373220, SHEMAKHA Telephone 93 148, or 91 122

Akhundov Avenue, 151 374510, SHEKI Telephone 42 358

Mizami Street, 4 374863, SHAMKIR Telephone 25 623

Environmental Protection Equipment Available in the Port of Baku

# Armex 5

# Environmental Protection Equipment Available in Baku Port

### information

1. Cil synchro receiver (damper)	_	4 sets (1 set - 53,5 m)
3. Harbour booms "Anakonda" type	-	4 səts (1 set - 84 m)
4. Oil skimmer	-	2 units
5. Marine oil skimmer	-	2 units
6. Boom carrier	-	d - with
7. Pump station receiving vessel sewage water		
from three areas (ferry terminal, sea station, timper terminal)		
Dust filter for grinding latines (ZLL-900)	-	3 unas
9. Sawdust selector for wood workshop (Cycron)		2 units
10.Receiver of different types of waste from vessels	-	2 unils
11.Damper floating construction	~	1 unit

### Offer:

- 1. To repair "Cyclon" (bunker) in the wood workshop
- 2. To restore reduced all spill protection group (500 000 manat monthly)
  3. To send two specialists of this field to Europe for training

### To buy:

1. 1000 m of "Anakonda" type booms (12 sets)		1 sat - 7500 US\$
2. dosimeter DRG-05MI		1 unit
3. analyzer AKV-106	-	1 unit
4. gas analyzer "Pladiy-3"4215129664	-	1 unit
5. gas analyzer "Atmosphere PM"	_	1 unit
6. electro respirator EA-IA	-	1 unit
7. air purify VZ-I	~	1 unit
3. gas analyzer GTR-I 4215140004	~	1 unit
9. motor tanker		1 unit

# To establish the laboratory:

- 1. romm of 100 m2 for three employees
- 2. 1 radiologist
- 3. 2 chemists (450 000 manat monthly)

Labour Safety Legislation of Azerbaijan Republic

# Annex 6 Labour Safety Legislation of Azerbaijan Republic

#### Article 17

For arrangement of labour safety and for observance its laws, norms and rules as well as for carrying out its control labour safety departments were established in the ministries, head offices, associations, enterprises etc.

Labour safety departments are established in the enterprises complising 50 or more employees (engineers are involved). At the enterprises with less number of employees and without labour safety departments the labour safety related activities are carried out by the chiefs of these shierprises.

At the enterprises with more than 500 employees labour safety regulations are to be carried out by one of the deputies of the chiefs (chief engineer).

At the enterprises with more than 1000 employees tabour safety departments additionally consist of the labour hygiene physician and an industrial sardicity laboratory is established as well.

Application of labour safety norms and regulations is organized by the persons having special training and according to their status they are subject to the chiefs or ministries, nead departments, other managing bodies, enterprises and offices.

Labour safety specialists have the right to control occarvance of labour culety norms and regulations, to give instructions to chiefs of structural divisions to remove the violations found, also to inform the chiefs of the enterprises and the offices about making violaters answerable for mem.

Labour safety specialists aren't be involved in the work which does not correspond to ineit position and they are responsible for implementation of their activities properly and in an efficient way.

New organizational issues of labour safety are solved by the chief of enterprises together with labour safety inspectors attached to the inspection of the State Surveillance and the trade unions.

Labour safety norms and regulations become invalid at the moment of cessation of activities of the enterprises, offices and departments.

**Technical Specifications of Oil Booms** 

# Specification of Oil Boom

### Hydrotechnik Oil Boom Type 600 S / curtain type

Drawing No. 061091 and leaflet

foam filled

### **Technical Specification:**

Total Height

600 mm

Freeboard

180 mm

Draft

420 mm

Fabric

1400 g/sqm **PVC** coated Polyester

Fabric

**Buoyancy Media** 

Closed Cell Form

### Length of Standard:

Section

12 metres

Boom Weight 4.0 kilos/metre

#### **Tensile Strength:**

Chain

4000 kilos

Fabric

13500 kilos

Gross

17500 kilos

Colour

International yellow

Couplings

Marine grade aluminium

The Material was tested in temperatures from -30°C to +65°C

1 m oil boom type 600 S; DM 112.00 / m ex works

### Hydrotechnik Oil Boom Type 600 S / curtain type

Drawing No. 071091 and leaflet

foam filled

### **Technical Specification:**

Total Height

900 mm

Freeboard

300 mm

Draft

600 mm

Fabric

1400 g/sqm

**PVC** coated Polyester

Fabric

Buoyancy Media

Closed Cell Form

### Length of Standard:

Section

12 metres

Boom Weight

5.2 kilos/metre

#### **Tensile Strength:**

Chain

4000 kilos

Fabric

20760 kilos

Gross

24760 kilos

Colour

International yellow

Couplings

Marine grade aluminium

acc. ASTM F 962-86

The Material was tested in temperatures from -30°C to +65°C

1 m oil boom type 900 S; DM 145.00 / m ex works Lübeck

Technical Assistance for the Port of Baku - Management Assistance and Training Project Management: HPTI-UNICONSULT-RECOL Conscitium Coersee-Zentrum, Schumachenverder, D-20457 Hamburg, Germany, and Utteir Sajibekeva 70, Bulia, Azerbaijan

