

**Order #**  
**of the Minister of Environmental Protection and Natural**  
**Resources of Georgia**  
**(insert date)**

**on Approval of the Enclosed Environmental Impact**  
**Assessment Guidelines for Solid and Hazardous Waste**  
**Disposal Facilities**

for the purpose of execution of the Paragraph 1 of the Article 40 of the Law of Georgia on Licensing and Permits and the Resolution #154 of the Government of Georgia “On Approval of the Environmental Impact Assessment Regulations” dated September 1, 2005:

1. Approve the enclosed Environmental Impact Assessment Regulations
2. Approve the enclosed Environmental Impact Assessment Guidelines for Solid and Hazardous Waste Disposal Facilities
3. Publish the present Order within 7 days after its inclusion into the Normative Acts State Register
4. The present Order shall enter into force at the date of publication.

G. Papuashvili

**Environmental Impact Assessment Guidelines for Solid and Hazardous**  
**Waste Disposal Facilities**  
**Chapter I. General Provision**

**Article 1. Normative act which served as a basis and purpose for approval of the Environmental Impact Assessment Guidelines for Solid and Hazardous Waste Disposal Facilities**

Environmental Impact Assessment Guidelines for Solid and Hazardous Waste Disposal Facilities is approved on the basis of the Paragraph 1 of the Article 40 of the Law of Georgia on Licensing and Permits, on the basis of the Georgian General Administrative Code of 1999, and the Paragraph 4 of the Article 8 of the Law of Georgia on State Ecological Expertise of October 15, 1996 and for the purpose of execution of legislative norms stipulated by this Article.

**Article 2. Scope of Regulation of Guidelines**

The present Guidelines regulate the rule of conducting EIA for solid and hazardous waste disposal facilities on the territory of Georgia, relations between the state and the society in the

field of identification, study and assessment of potential environmental impact of the activity as well as in the field of normative-methodological provision of the EIA procedure.

### **Article 3. Legal Basis of Guidelines**

The present Guidelines are based on the Laws of Georgia on Licensing and Permits, on Environmental Protection, on State Ecological Expertise, on Environmental Permits, and other laws and regulations, as well as on international conventions, agreements and treaties.

The Georgian approach to EIA is described in the Law of Georgia on Environmental Permits where I category activity is required to have detailed Environmental Impact Assessment. Issues related to waste handling and disposal facilities are under the category I.

### **Article 4. Purpose and Objectives of the Guidelines**

1. The purpose of the present Guidelines are as follows:

a) Definition of rules, principles and methods for study of direct and indirect impact of the planned activity on human health and safety, flora and fauna, soil, air, water, climate, landscape, ecosystems and historical-cultural monuments or on the combination of all abovementioned factors.

b) The present Guidelines determine the details of appropriate approach to EIA for solid and hazardous waste disposal facilities. The Guidelines should ensure development of complete and adequate EIA reports for such projects.

c) Definition of the rule for the EIA procedure for the activity planned by the project developer at the stage of its study and examination and normative-methodological provision.

### **Article 5. Definitions**

1. Environmental Impact assessment (EIA) – a procedure of study and investigation of the planned activity which is aimed at protection of certain environmental attributes, human as well as landscape and cultural heritage. Environmental Impact Assessment studies, identifies and describes potential direct and indirect impact on human health and safety, flora and fauna, soil, air, water, climate, landscape, ecosystems and historical-cultural monuments or on the combination of all abovementioned factors, including impact of the abovementioned factors on cultural values (heritage) and social and economic factors (for development projects). EIA is a process which provides information for decision-making process. EIA itself is not a decision-making procedure, it is a strictly defined tool used during the decision-making process.

2. Activity – industrial, economic and any other activity, implementation of development plans and programs, including implementation of infrastructural projects, development and sectoral development plans, projects and programs on protection, use and utilization of water, forest, minerals and other natural resources existing on the territory of Georgia, as well as technical and technological renovation.

3. Developer – agent, natural or legal person which initiates the activity and applies for obtaining environmental permit for conduction of the activity to the body authorized to issue environmental permits.

4. Environmental Permits – written decision issued by the Ministry of Environmental Protection and Natural Resources the form and the procedure for its issuance is regulated by the Georgian Legislation.

5. Linear Structure – motorway, railway, any pipeline, pipe (except the internal network of buildings and the section between the building and connection point to the main network), air rope-way, air and cable communication lines, including power transmission and communication lines.
6. Screening - is a process by which a decision on the need of EIA for a project shall be taken.
7. Scoping - is a process to determine which information should be gathered during the EIA study and how it should be presented in the EIA report.
8. Waste - any substance or object which may exist in the form of raw stuff, materials, half-finished products and the remainder of any other goods and products generated by industrial processes as well as in the form of products (goods) which have lost their consumer qualities and the holders discards, destroys or gets rid of it or intends to if it (such obligation) is stipulated by legal requirements set by the Georgian legislation.
9. Waste generator - a legal or natural person whose actions generate waste.
10. Waste holder – a waste generator and/or any person who may be imposed the obligation of holding waste on the basis requirements established by the Georgian legislation.
11. Waste management – an activity related to avoidance of waste generation and collection, transportation, utilization, treatment and disposal of waste.
12. Waste disposal – storage and/or burial of waste.
13. Waste storage – stowage of waste at the waste disposal facility for the purpose of their further burial, treatment or utilization.
14. Waste burial – isolation of waste on a specially designated area and/or premises for the purpose of avoidance of discharge of harmful substances existing in waste composition into the environment.
15. Utilization of waste – use of waste for the purpose of production of goods (products), execution of works, servicing and energy generation.
16. Waste treatment - treatment of waste (including incineration in special facilities) for avoidance of harmful impact of waste on human health and the environment.
17. Waste treatment and/or disposal facility – a special area, building or premises assigned for waste treatment and/or disposal.
18. National Standard – National Georgian Standard adopted in accordance with the Law of Georgia on Standardization and/or the Standard to be used in CIS – a commitment taken by Georgia on the basis of the Agreement on Carrying out a Coordinated Policy in the Field of Standardization, metrology and Certification signed in Moscow on March 13, 1992.
19. Sanitary-hygienic norms and rules – sanitary rules, sanitary norms, hygienic standards and sanitary rules and norms adopted on the basis of the Law of Georgia on the Health Care and/or sanitary rules, sanitary norms, hygienic standards and sanitary rules and norms temporarily effective (effective in Georgia until 1992) on the territory of Georgia in accordance with the Paragraph 2 of the Article 44 of the Sanitary Code of Georgia.

20. National Classifier of Economic Activities – “National Classifier 001-97 – Types of Economic Activities” approved by the Order #2 of the State Department of Standardization, metrology and Certification dated January 13, 1997.

21. Construction norms and rules – construction norms and rules adopted in accordance with the Georgian legislation and/or construction norms and rules to be used on the territory of Georgia on the basis of Order #3/26 of the Minister of Urbanization and Construction of Georgia dated February 5, 2001 on Prolongation of the Period of Validity of Construction Norms and Rules and other Regulation Currently in Force on the Territory of Georgia”.

22. Development of waste disposal facilities (polygons) after their closing-down – greening and/or arrangement of playgrounds on the territory of waste disposal facilities (polygons) after their closing-down.

23. The term “hazardous chemical substance” has a meaning defined by the Law of Georgia “on Hazardous Chemical Substances”.

24. The terms “the integrated environmental pollution control system”, “the best technology”, “environmental norms”, “sustainable development”, “ecologically clean products” and “cleaner production” have meanings defined by the Law of Georgia on Environmental protection.

Definitions of solid and hazardous waste shall be added in accordance with the Law on Waste.

#### **Article 6. Rule and Procedure for Conducting EIA**

1. The EIA procedure is determination of the nature and quality of a source of potential environmental impact identified during preparation of documents for the Category I activity in accordance with the list established by the Legislation and obtaining permits for this activity, as well as integrated assessment of their environmental, social and economic consequences.

2. Preparation of EIA is to be undertaken by the developer. It is an initial stage of the EIA procedure. It covers the environmental and social-economic balance of the future development and precedes the decision on the feasibility of the activity and the relevant project to be made by the developer.

3. The EIA covers identification, description and study of consequences of direct and indirect impacts in the context of the planned activity:

- a) on human living environment and health
- b) on flora and fauna
- c) on natural and modified ecosystems
- d) on landscapes
- e) on air, water and soils
- f) on historical monuments and cultural values
- g) on social and economic factors

#### **Article 7. Environmental Impact Assessment Report for Solid and Hazardous Waste Disposal Facilities shall contain the following information:**

1. A brief description of the major components of the proposed project, a statement of the need for it and the objectives it is intended to meet, the implementing agency, a brief history of the project, (including alternatives considered), its current status and timetable, and the

identities of any associated projects. If there are other projects in progress or planned within the region that may compete for the same resources, they should also be identified here.

2. Goals. This general scope of the environmental assessment should be summarised and its timing in relation to the processes of project preparation, design, and execution should be discussed. This section should identify constraints, if any, regarding the adequacy of existing environmental assessment baseline data and needs to phase additional data collection (e.g., over several seasons) and assessment efforts so as not to hinder the rest of the project development schedule.

3. Environmental assessment requirements shall reflect any rules and guidelines, which govern the conduct of the assessment or specify the content of its report. They may include international and/or national laws and/or rules related to environmental review and impact assessment; environmental assessment regulations of any other financing organizations involved in the project.

4. The standards which project components must address to be environmentally acceptable including air emission standards, receiving water quality standards, and occupational health and safety requirements shall be specified.

5. The study area. This section will specify the boundaries of the study area for the assessment. (e.g., water catchment, airshed). Where appropriate, specify the right-of-way width and alignment for transportation corridors for raw material and product shipments. If there are adjacent or remote areas which should be considered with respect to impacts of particular aspects of the project, identify them.

#### 5. Description of the Environment

a) Physical environment: neighbourhood layout, showing locations for communal containers, stops for truck during block collection, or streets served by curb-side collection; conditions of road or walkway access for collection equipment; and climate and meteorology, as it affects refuse containment and frequency of collection.

b) Socio-cultural environment: population density and demographic level by neighbourhood; community structure of local leaders and traditional public involvement process; employment and other activities indicating patterns of movement to and from neighbourhood; education level with regard to sanitation and public health; and customs and attitudes relative to cooperation with collection system.

#### 6. Siting of waste transfer and disposal facilities:

a) Physical environment: location of proposed facilities with regard to nature of surrounding land uses and proximity to homes and other establishments; existing road and traffic conditions in the area of proposed facilities, versus proposed road and traffic conditions; existing topography and proposed changes, including area which will be affected by any visible aesthetic impacts; soils and geology; surface and ground water hydrology, and hydraulic connections between the proposed sites and receiving waters down-gradient of the sites; existing and proposed uses of receiving waters, including location of private and public water supply wells and intakes; climate and meteorology, including prevailing wind direction.

b) Biological environment: flora and fauna; sensitive habitats (e.g., wetlands delineation); and rare, endangered, or commercially important species.

c) Socio-cultural environment: past uses of sites and consideration of any historic significance; land use and demographic character of surrounding neighbourhoods; planned development activities; education, awareness, and sensitivity of public to proposed siting of

facilities; and public concerns over traffic, insects, noise, dust, odour, smoke, or aesthetic issues.

d) Physical environment: geology (e.g. stratigraphy and structure of well fields, seismic history of storage tank areas, integrity of geological layers protecting potable groundwater supplies); topography (e.g. drainage patterns around construction areas, view-sheds around facilities); soils (e.g. agricultural value, potential use for lining or soil cover in residue disposal); climate and meteorology (e.g. prevailing wind patterns around stacks, precipitation patterns at residue disposal sites); ambient air quality (e.g. ability to assimilate emissions and maintain air quality standards); (note input from other major pollutant generators in the area, if any); surface water hydrology (e.g. downstream water resources from reservoirs, soil erosion and sedimentation potential, flood hazard potential); water resources (e.g. adequacy of water supplies); coastal and oceanic parameters (e.g. currents in docking areas, dispersion potential at effluent discharge locations); receiving water quality (e.g. ability to assimilate effluent discharges and maintain water quality standards for desired uses); (note input from major pollutant generators in the area, if any); significant pollutant sources in the area and prospect for their mitigation.

e) Biological environment: flora and fauna; rare or endangered species within or in areas adjacent to project-related development sites or ROW's (right-of-way); sensitive habitats, including wetlands, parks or preserves, significant wildlands within or in areas downstream/down-gradient of project-related development areas or ROW's; species of commercial importance in areas affected by the project, including coastal areas at docking facilities.

f) Socio-cultural environment (include both present and projected where appropriate): population (i.e., full time and seasonal); land use (i.e., year-round and seasonal); planned development activities; community structure; employment and labor market; distribution of income, goods and services; recreation; public health; education; cultural properties (e.g., archaeological and historically significant sites); indigenous peoples and traditional tribal lands; customs, aspirations and attitudes.

### **Article 8. Determination of the Potential Impacts of the Proposed Project**

1. For solid waste projects, there are numerous potential impacts to be reviewed as a part of design. For the most part, well-conceived designs will minimize adverse impacts. Also, many potential impacts can be minimized by altering operating practices.

2. With regard to these impact issues, special studies conducted as a part of environmental impact assessment are recommended. Specifically, prior to design of a land disposal site, borings need to be drilled both on-site and off-site to assess the character of soils and geology and confirm the flow of ground water. Data from these borings coupled with information on rainfall and infiltration should be used to make a simple determination of the quantity of leachate which could be generated and released from the land disposal site and its potential effect on the nearest receiving water.

3. For hazardous waste projects, all significant changes which the project would incur should be identified. These would include, but not be limited to, changes in the following: employment opportunities, wastewater effluents, air emissions, solid wastes, land use, infrastructure, exposure to disease, risk of industrial hazard, noise, traffic, socio-cultural behaviour. The impacts from changes brought about by the project on baseline environmental conditions as described above should be evaluated. In this analysis, distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Identify impacts which are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits. Assign economic values when feasible.

## **Article 8. Analysis of Alternatives to the Proposed Project**

1. Description of alternatives that were examined in the course of developing the proposed project and identification of other alternatives which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements. When describing the impacts, indicate which are irreversible or unavoidable and which can be mitigated.

2. The analysis may lead to designs that are more sound from an environmental, socio-cultural or economic point of view than the original project proposal. The concept of alternatives extends to siting, design, fuels, raw materials and technology selection, construction techniques and phasing, and operating and maintenance procedures; alternative means of meeting industrial product requirements; the alternative of upgrading existing facilities; alternative routes and sites; alternative design; and alternative methods of construction, including costs and reliability. Comparison of the alternatives in terms of potential environmental impacts; capital and operating costs; suitability under local conditions (e.g., skill requirements, political acceptability, public cooperation, availability of parts, level of technology); and institutional, training, and monitoring requirements. Quantification of the costs and benefits of each alternative, incorporating the estimated costs of any associated mitigating measures to the extent possible. Description of the reasons for selecting the proposed project over the other alternatives.

## **Article 9. Content of the EIA Report**

1. The environmental assessment report should be concise and limited to significant environmental issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used in interpreting those data. The environmental assessment report should be organized according to the outline below.

- a) Description of the proposed project.
- b) Identification of impact sources, types and objects
- c) Assessment of environmental, social and economic consequences of the activity.
- d) Analysis of alternatives.
- e) Mitigation measures
- f) Environmental monitoring strategy.
- g) Prediction of changes in quantitative and qualitative characteristic of the state of the environment
- h) Determination of the probability of potential accidents and assessment of expected consequences
- i) Determination of ways for minimization and avoidance of adverse impact on human health and the environment
- j) Determination of cumulative impact and the methods of its control and monitoring
- k) Conduction of environmental-economic assessment of the projects
- l) Consideration of reclamation issues
- m) Development of environmental management and monitoring plans for implementation, operation and completion phases of the activity.

## **Article 10. Development of a Monitoring Plan**

1. For solid and hazardous waste projects, which include a waste disposal facility, environmental monitoring should include gas and ground water monitoring wells and a regular schedule of monitoring for key indicators of contamination. If the waste disposal site

has a gas collection and ventilation system, periodic monitoring of the composition of gas being discharged from the vents is recommended. Also recommended is periodic monitoring, on-site and off-site with a portable meter, of the ambient air's oxygen and combustible gas levels. Similarly, for projects which include an incinerator or resource recovery plan, environmental monitoring should include air quality monitoring of stack gases.

2. In the case of hazardous waste facilities, based on knowledge of site conditions relative to topography, wind direction etc., a site control plan should be developed, which determines the corresponding levels of required personnel protection in various areas around the site. If the hazardous conditions could potentially exist beyond the actual project site, for example to residential or farm properties, the plan should also address emergency notification and evacuation procedures. The given community should always be made fully aware of any potential emergency that may occur in the area.

3. It should also be noted that medical monitoring is necessary for all workers who may be exposed to hazardous materials. Before the worker begins activities on-site, a baseline examination including blood sampling of the specific chemicals involved should be undertaken for comparison purposes. A questionnaire should be given inquiring about the worker's medical history. The worker should then undergo (at least) annual examinations to determine whether negative health symptoms are being caused by exposure to hazardous substances on-site.

#### **Article 11. Siting**

1. One of the most important aspects of alternative development regarding hazardous waste management is siting. Such projects need a full EIA. The EIA should be initiated well before the siting decision has been made, so that real alternatives can be considered. Identifying the potential impacts associated with each site and comparing sites on that basis causes environmental issues to come to light early and permits project planners and designers to take maximum advantage of all possible ways to avoid impacts.

2. For those impacts that cannot be avoided and are accepted as part of the costs of the development, the opportunity to select an alternative site may lead to a project in which the efficiency of measures to mitigate impacts is higher and the costs of the measures are lower than would otherwise be the case. A timely EIA also prevents the disruption, delay, and extra expense involved when a site must be changed because of environmental or public acceptance issues that come to light during final design.

3. Seven basic elements are common to all projects:

- a) A short list of potential sites (may include both preferred and alternative sites).
- b) Description of each site in terms of ecological and socio-cultural sensitivities.
- c) Analysis of capacity to assimilate impacts at each site in terms of a common set of criteria for prevention of natural and socio-cultural resource degradation.
- d) Elimination of sites with serious environmental limitations.
- e) For remaining sites, description of measures to avoid or mitigate impacts and comply with environmental standards, including consideration of technical and institutional feasibility, reliability and life-cycle cost.
- f) Consultation with affected communities.
- g) Ranking of alternatives and selection of proposed site. Depending on the regulations of the country and the nature of the industry, the site selection process may be carried out in the context of an EIA or as a more specific analysis under a licensing or permit application procedure.