## A. PURPOSE

The purpose of this procedure is to determine the environmental aspects arising from activities, services or products of ÇATES, to evaluate the impact of these aspects on the environment, and thus to determine the aspects that have significant environmental impact and to determine the authority, responsibility, implementation methods and principles for controlling the expected or possible impacts.

## B. SCOPE

In power plant and ash dam sites, this procedure covers the activities of defining environmental aspects within the scope of the Environmental Management System, assessing the impact, determining important environmental aspects and taking relevant control measures.

## C. RESPONSIBILITIES

The Environmental Engineer, Environmental Representative and Unit Director/Manager are responsible for reviewing all activities and defining the environmental aspects, assessing their impact and determining the measures regarding important environmental aspects, documenting and keeping these studies up to date, and assessing whether the measures are implemented.

***Senior Management***, Unit Director/Manager are responsible for ensuring that the planned measures are implemented.

## D. IMPLEMENTATION

### 1. Definitions

**Environment**: The environment, in which an organization operates, including air, water, soil, natural resources, flora and fauna, and people, and the relationship between them.

**Environmental Aspect**: An element of an organization's activities or products or services that may interact with the environment.

**Environmental Impact**: Any positive or negative change that an organization makes to the environment resulting, in whole or in part, from its environmental aspects.

**Important Environmental Aspect**: The aspects that have an important environmental impact. Important environmental aspects are aspects, of which impact must be kept under control and managed.

### 2. Methodology for Identifying Environmental Aspects, Assessing Impacts and Determining Important Environmental Aspects

The process of identifying Environmental Dimensions, assessing impacts and determining important environmental dimensions consists of the following steps.

a. Determining the Processes

b. Determining Environmental Aspects, Impacts and Current Measures (Creating the Chart for Determining the Environmental Aspects and Impacts)

c. Assessing Impacts, Determining Important Environmental Aspects (Creating an Environmental Risk Analysis Chart)

d. Deciding on Control Measures

e. Preparing and Implementing an Implementation Plan

f. Monitoring and Tracking

g. Updating the Conducted Studies

h. Renewing the Environmental Aspect Impact Assessment Study

### 2.1. Determining the Processes

The Unit Environmental Representative and Director/Manager, together with the Environmental Engineer, determine the processes within the unit's area of responsibility that may have an environmental impact.

### 2.2. Determining Environmental Aspects, Impacts and Current Measures (Creating the Chart for Determining the Environmental Aspects and Impacts)

Processes, raw materials, wastes, products and services are taken into account when determining environmental aspects and impacts.

Information sources such as legal and other requirements, environmental impacts of similar lines of work, data on waste management, environmental monitoring data, environmental permits, EIA report / PIF File (Project Introduction File), MGBFs, data on energy management, environmental accidents that occurred, current environmental problems and environmental emergency response methods are used when determining the environmental aspects and impacts.

Unit Environmental Representative/Environmental Engineer determines process inputs (natural resources, raw materials, auxiliary materials), process steps (activities) and outputs (liquid, solid, gaseous waste, hazardous waste and environmental noise) for each process. The usage amounts of process inputs and amounts of process outputs (wastes) are written in the chart. Then;

- Environmental aspects (gas-dust emissions, waste water, solid waste, hazardous waste, noise, electricity usage, water usage, smell etc.) that may arise during activities (normal working conditions) and their environmental impacts,
- Environmental aspects that may arise as a result of environmental accidents such as spills and leaks (abnormal working conditions) and their environmental impacts,
- Environmental aspects that may arise in emergencies such as earthquakes, floods and fires and their impact on the environment are determined.

The impact/impacts of each determined environmental aspect on the environment (water, air, soil pollution, noise pollution, hazard to human health, nature destruction/damage to the ecosystem, use of natural resources) are defined separately. The impacts that each environmental aspect may create may be more than one.

After determining the environmental aspects and impacts, current measures for the consequences of negative impacts are determined and written in the chart.

Chart for Determining the Environmental Aspects and Impacts is completed by stating the abovementioned information in the chart and then submitted to the unit manager for approval. If needed, relevant changes are made to the chart in line with the comments of the Unit

Manager. After being approved by the Unit Manager, the step for assessing the impact and determining important environmental aspects begins.

### 2.3. Assessing Impacts, Determining Important Environmental Aspects (Creating an Environmental Risk Analysis Chart)

When creating the environmental risk analysis chart, the processes, process steps (activities), environmental aspects and impacts (positive/negative) determined in the previous steps are stated in the chart. Then, the step for assessing the impacts relating to the determined environmental aspects begins.

The Environmental Engineer determines the relevant legal requirements for the determined environmental aspects and impacts, to be specified in the environmental risk analysis chart, and presents the current situation of Çates according to these legal requirements. Based on the current situation, compliance with the legal legislation is determined. Required implementations for the control and measures of moderate, significant and unacceptable risks are determined and the manager and supervisor responsible for the process are notified by e-mail.

Environmental Engineer/Unit Environmental Representative assesses the impacts relating to the determined environmental aspects according to the charts and formulation below.

**Severity, Probability Scoring Chart:**

The severity and probability of the impact occurring are determined according to the chart below:

| SEVERITY | |
|---|---|
| DESCRIPTION | SCORE |
| Very Severe | 5 |
| Severe | 4 |
| Moderate | 3 |
| Mild | 2 |
| Very Mild | 1 |

| DEGREE OF PROBABILITY OR IMPORTANCE | | |
|---|---|---|
| DESCRIPTION | | SCORE |
| Very High | Expected, certain | 5 |
| High | Highly probable | 4 |
| Moderate | Probable | 3 |
| Low | Probable however low | 2 |
| Very Low | Practically improbable | 1 |

**Determining the Risk Score: (RS)**

Within the scope mentioned above, the risk score, the probability of the impact occurring, and the severity of the result that may occur when this probability occurs are formulated as follows.

## RISK SCORE = DEGREE OF PROBABILITY OR IMPORTANCE X SEVERITY

Risk Score calculated in accordance with this formula and relevant actions are determined according to the table below.

| RISK SCORE = DEGREE OF PROBABILITY OR IMPORT. X SEVERITY | SEVERITY | | | | |
|---|---|---|---|---|---|
| DEGREE OF PROBABILITY OR IMPORT. | 1 – Very mild | 2 - Mild | 3 - Moderate | 4 - Severe | 5 – Very severe |
| 1 – Very minor | Insignificant 1 | Low 2 | Low 3 | Low 4 | Low 5 |
| 2 - Minor | Low 2 | Low 4 | Low 6 | Moderate 8 | Moderate 10 |
| 3 - Moderate | Low 3 | Low 6 | Moderate 9 | Moderate 12 | High 15 |
| 4 - High | Low 4 | Moderate 8 | Moderate 12 | High 16 | High 20 |
| 5 – Very high | Low 5 | Moderate 10 | High 15 | High 20 | Unacceptable 25 |

Aspects with a risk score of 8 and above, and an impact class of moderate, high and unacceptable are defined as "important environmental aspects". For important environmental aspects, control measures and implementation plans must be made.

The Environmental Risk Analysis Chart is considered complete by stating the abovementioned information in the chart and then submitted to the unit manager for approval. If needed, relevant changes are made to the chart in line with the comments of the Unit Manager. After being approved by the Unit Manager, the "implementations that require control measures" step starts.

### 2.4. Implementations That Require Control Measures

Environmental Engineer, Unit Environmental Representative, unit engineer and Unit Manager decide on control measures (action, corrective and preventive actions) for "important environmental aspects" (RS≥ 8). Although a defined environmental dimension is not considered an "important environmental dimension" according to the risk score, if compliance with the legal legislation is not in question, control measures are also decided for this environmental aspect.

### 2.5. Preparing and Implementing an Implementation Plan

Environmental Engineer, Unit Environmental Representative, Unit Engineer and Unit Manager shall prepare the implementation plans, including the determined control measures, the responsible person or units that will implement these measures, and the deadlines, in the Environmental Aspect Impact Chart and notifies the responsible persons

by e-mail. These plans are implemented within the scope of relevant responsibilities.

The director/manager of the unit carrying out environmental aspect impact assessment study is responsible for ensuring that the planned measures are implemented.

### 2.6. Monitoring and Tracking

Environmental Engineer, Unit Environmental Representative and Unit Manager shall check whether the prepared plans are implemented.

If the planned or implemented control measures do not meet the system requirements, or if these plans are not implemented, the environmental engineer, unit environmental representative and unit manager shall assess the situation. The assessment is to investigate what needs to be done to implement the determined measures or new measures are planned. If needed, the issue is submitted to Senior Management. Senior Management makes the final decision.

### 2.7. Updating the Conducted Studies

Environmental aspect impact assessment is an ongoing process. The adequacy of control measures is constantly reviewed and the measures are revised when necessary.

If the following conditions are present, environmental aspect impact assessment studies are reviewed and the study is updated if necessary.

- Significant change in environmental aspects and impacts
- Change in legal requirements
- Changes in the applied technology, materials used and activities
- Deemed necessary according to measurement and analysis results
- An environmental accident taking place
- Deemed necessary as a result of the inspections carried out by the Ministry of Environment and Urbanization

### 2.8. Renewing the Environmental Aspect Impact Assessment Study

Çates Environmental Aspect Impact Assessment study is renewed at least once a year, it is monitored through the system, relevant parties are informed by e-mail for risk and opportunity monitoring, and the process owner and manager are automatically notified to take corrective action for the risk/opportunity above the reference level to be determined.

## 3. Documentation

Environmental aspect and impact assessment studies are documented with the "ÇTS.ÇVR.TBL.003 Environmental Aspects and Impacts Determination Chart" document. The study is prepared electronically and the pages are numbered; and published on the QDMS system.