



**SCREENING CHAPTER 27
ENVIRONMENT**

**AGENDA ITEM: INCINERATION OF WASTE
Directive 2000/76/EC**

**Country Session: The Republic of TURKEY
29 May - 02 June 2006**



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COMPETENT AUTHORITY

The Ministry of Environment and Forestry (MoEF) is the competent authority on waste management based on Articles 2 and 9 of the Law No.4856 on Establishment and Duties of the MoEF.

Municipalities are responsible for implementing disposal measures.



LEGISLATIVE FRAMEWORK

Based on: Environmental Law (No: 2872)

Name of By-Laws	Official Gazette date and number	Related Articles
Hazardous Waste Control	14 March 2005 /25755	Article 20,21 and annexes XV, XVI and XVII.
Communiqué on Usage of Waste as an Alternative or Additional Fuel	22 June 2005 / 25853	All articles and annexes
Medical Waste Control	22 July 2005 /25883	Art. 33, 34 and 35
Solid Waste Control	14 March 1991 /20814	Art. 38, 39 and 40



LEGISLATIVE FRAMEWORK (CONT`D)

Following provisions of the Directive on Waste Incineration transposed into the national legislation:

Article-3 Definitions (3.1, 3.2, 3.4, 3.11, 3.12),

Article-4 Application and permit (4.1, 4.2, 4.3),

Article-6 Operating conditions (6.1, 6.2, 6.3, 6.5),

Article 7- Air emission limit values (7.1, 7.2),

Article 8- Water discharges from the cleaning of exhaust gases (8.1, 8.2),

Article10-Control and monitoring (10.5),

Article11- Measurement requirements (1, 2 ,8 ,10) and

Annexes I, III and V.



CONTENT OF CURRENT LEGISLATION

By-law on Hazardous Waste Control

Article 20 – Rules and limits

- a) Technical details for efficient incineration in plant
- b) CO limitation values
- c) Emission limits on stack gas
- d) Dioxin and furan emission values



CONTENT OF CURRENT LEGISLATION (CONT'D)

Article 21 – Test Incineration

- It is obligatory to have a test incineration in the plant for testing the emission values.
- By test incineration :
 - waste categorization, waste menu and emissions due to waste feeding rate have to be determined.
 - ensuring facilities do not exceed emission values.



CONTENT OF CURRENT LEGISLATION (CONT'D)

- Annex XV - Measurement Techniques
- Annex XVI - Toxicity Equivalency Factors for Dioxins and Furans
- Annex XVII - Limitation values for waste water generated from stack gas treatment in waste incineration facility



CONTENT OF CURRENT LEGISLATION (CONT'D)

Communiqué on Usage of Waste as an Alternative or Additional Fuel

Aim of this Communiqué is to arrange the required general rules on technical and administrative issues on the usage of waste as an alternative or additional fuel.



CONTENT OF CURRENT LEGISLATION (CONT'D)

Wastes which can be used in cement factories as additional fuel :

- Used tires,
- Used oils (I. and II. category),
- Plastic wastes,
- Paint sludge,
- Solvents,
- Other wastes accepted by Ministry of Environment and Forestry



CONTENT OF CURRENT LEGISLATION (CONT'D)

ANNEX – II

Emission limits for the waste incineration plant.

ANNEXES-III, IV, V

Calculations of emission limits for the incineration facilities that will incinerate waste as additional fuel.

ANNEX- VI

Format for Test Incineration Plan



CONTENT OF CURRENT LEGISLATION (CONT'D)

By-law on Medical Waste Control

Article 33- Incineration of medical waste - Medical waste may be disposed of by incineration.

Article 34- Principles to be complied with in process of incinerating medical waste - Principles as stipulated in the articles related to incineration in the By-law on Control of Hazardous Waste shall be complied with. Medical waste may also be incinerated at cement factories if it complies with all requirements given by the MoEF.

Article 35- Site selection permit of incineration facilities - Details are given for site selection of an incineration facility.



CONTENT OF CURRENT LEGISLATION (CONT'D)

By-law on Solid Waste Control

Article 38- Technical Matters Related to Incineration Facility - Conditions listed in this article must be met by incineration facilities constructed.

Article 39- Limit Values for Stack Gas Emission - In the domestic waste incineration facilities, the principles under the topic of 2nd group facilities in Annex VII of the Regulation on Preservation of Air Quality are complied with.

Article 40- Materials which the Incineration in the Domestic Solid Waste Facility is Prohibited

- organic bonded chloride which exceeds 1% of the total amount of solid waste
- contain halogen organic material which exceeds 50 mg in 1 kg of waste



LICENSING

All incineration and co-incineration operators have to apply MoEF in order to obtain a license according to the By-Law on Hazardous Waste Control (Articles 20, 21, 27, 28) and Communiqué on Usage of Waste as an Alternative or Additional Fuel (Article 5).

LICENSE SUBJECT	NUMBER OF FACILITIES	TOTAL CAPACITIES (Tones / years)
Communiqué on Usage of Wastes as an Alternative or Additional Fuel	17	88,714
By-Law on Hazardous Waste Control	1	35,000

Source: MoEF Data List



LICENSING (CONT'D)

IZAYDAS Incineration Facility

LICENSED : **First in 2001**
 Renewed in 2005

Incineration capacity : 35,000 tones / year (4,100 kg/h)

Solid Waste : 2,500 kg/h

Liquid Waste : 1,600 kg/h

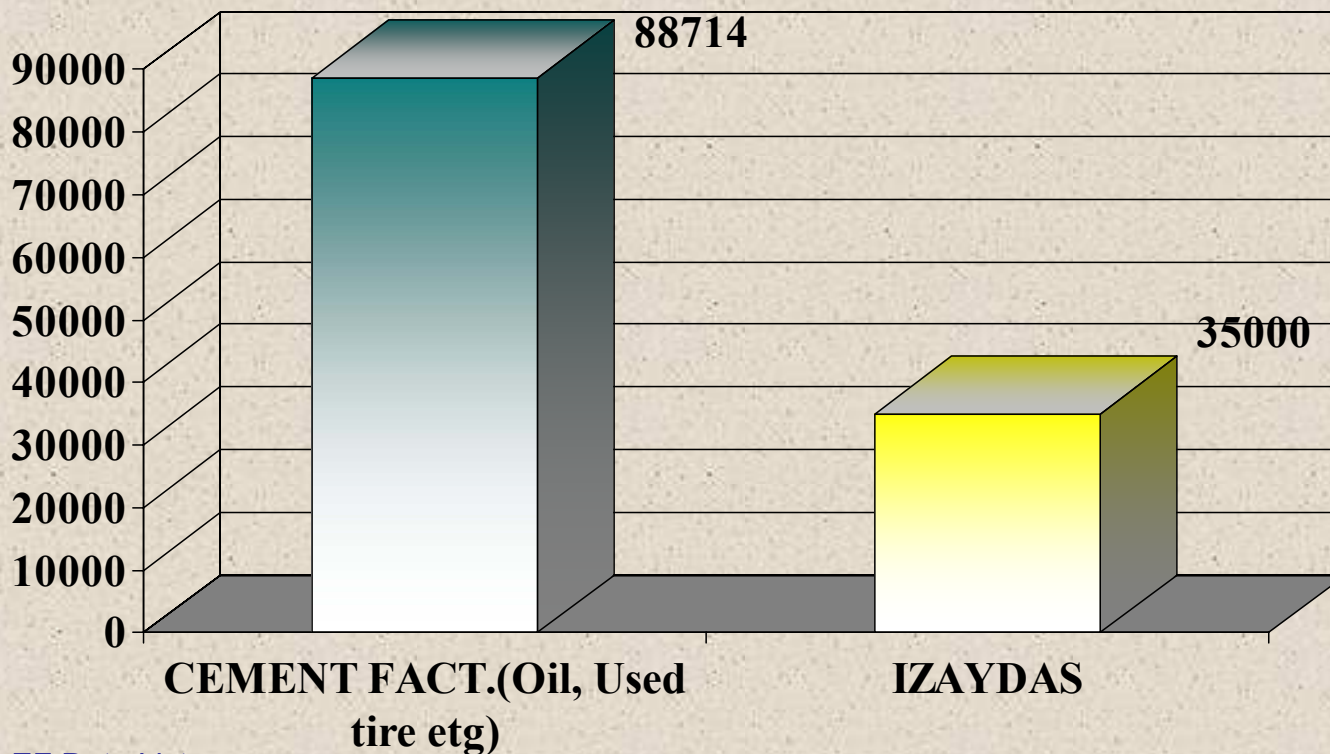
Thermal Value : 86 GJ/h

Electricity Production: 5.2 MW



TECHNICAL STUDIES

CAPACITIES OF LICENSED CEMENT FACTORIES AND WASTE INCINERATION PLANT (Tonnes / year)



Source: MoEF Data List



TECHNICAL STUDIES (CONT'D)

Under the Waste Management (TR 03/IB/EN/01) component of “Support To Turkey In The Field Of Air Quality, Waste Management And Chemicals Project” financed under 2003 EU Pre-Accession Financial Assistance, technical studies are carried out to establish the necessary capacity within the Ministry of Environment and Forestry to transpose and implement 6 EU Directives including Incineration Directive (2000/76/EC).

Technical studies regarding the preparation of a draft By-law on Incineration of Waste are in progress.



FURTHER ACTIONS

- Technical studies for the preparation of an Environmental Approximation Strategy of Turkey are about to come into being.
- The outputs of the following projects are taken into account in the preparation of the Strategy:
 - Technical Assistance for the Preparation of the Integrated Environment Approximation Strategy for Turkey Project financed under EU MEDA Program (2003-2004)
 - Technical Assistance for Environmental Heavy Cost Investment Planning Project within the framework of the Capacity Building in the Field of Environment for Turkey financed under the 2002 EU Pre-Accession Financial Assistance (2003-2005)



FURTHER ACTIONS (CONT'D)

The Strategy document would present Turkey's action plan for environment management, including

- purposes
- objectives
- strategies
- financial programme

for short, medium and long terms for the implementation of Incineration of Waste Directive.

The Strategy will be finalised after being approved by the Government



ISSUES

- More incineration plant
- Public awareness



“THANK YOU FOR YOUR ATTENTION”