

SUBSIDIARY LEGISLATION 435.22

**LIMIT VALUES AND QUALITY OBJECTIVES
FOR CADMIUM DISCHARGES REGULATIONS**

1st March, 2002

LEGAL NOTICE 221 of 2001, as amended by Legal Notice 426 of 2007.

1. The title of these regulations is the Limit Values and Quality Objectives for Cadmium Discharges Regulations. Citation.
2. (1) For the purpose of these regulations and unless the context otherwise requires: Definitions and application.
- "cadmium" means:
- (a) the chemical element cadmium;
 - (b) the cadmium contained in any of its compounds:
- "competent authority" means the Department for Environment Protection under the guidance of the Director for Environment Protection and such other body or person as the Minister responsible for the environment may by order in the Gazette prescribe and different bodies or persons may be designated as a competent authority for different provisions and different purposes of these regulations;
- "existing plant" means an industrial plant which is operational on the date of entry into force of these regulations;
- "handling of cadmium" means any industrial process involving the use or production of cadmium, or any other process in which the presence of cadmium is inherent;
- "industrial plant" means any plant at which cadmium or any substance containing cadmium is handled;
- "limit values" means the values specified in Annex I hereof;
- "new plant" means:
- (a) an industrial plant which has become operational after the date of entry into force of these regulations;
 - (b) an existing industrial plant whose cadmium-processing capacity has been substantially increased after the date of entry into force of these regulations;
- "quality objectives" means the requirements specified in Annex II hereof.
- (2) These regulations apply to the waters referred to in regulation 2(2) of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, with the exception of groundwater. S.L. 435.15
3. (1) The limit values, the time limits by which they shall be complied with and the monitoring procedure for discharges are laid down in Annex I hereof. Limit value for cadmium discharges.

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- (2) The limit values shall normally apply at the point where waste waters containing cadmium leave the industrial plant. When waste waters containing cadmium are treated outside the industrial plant at a treatment plant intended for the removal of cadmium, the competent authority may permit the limit values to be applied at the point where the waste waters leave the treatment plant.
- S.L. 435.15 (3) The authorizations referred to in regulation 4 of the Pollution Caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations shall contain provisions at least as stringent as those in Annex I to these regulations, except where the competent authority is complying with regulation 7(3) of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, on the basis of Annexes II and IV to these regulations. Authorizations shall be reviewed at least every four years.
- S.L. 435.15 (4) Without prejudice to their obligations arising from subregulations (1), (2) and (3) and to the provisions of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, the competent authority may grant authorizations for new plants only if those plants apply the standards corresponding to the best technical means available when this is necessary for the elimination of pollution in accordance with regulation 3 of the said regulations or for the prevention of distortion of competition.
- (5) The reference method of analysis to be used in determining the presence of cadmium is given in Annex III (1). Other methods may be used provided that the limits of detection, precision and accuracy of such methods are at least as good as those laid down in Annex III (1). The accuracy required in the measurement of effluent flow is given in Annex III (2).
- Monitoring the aquatic environment. **4.** The competent authority shall be responsible for monitoring the aquatic environment affected by industrial discharges. In the case of discharges affecting the waters of other states, the competent authority shall cooperate with other competent authorities in Malta and abroad with a view to harmonizing monitoring procedures.
- Offences under these regulations. **5.** Any person shall be guilty of an offence under these regulations if:
- (a) he fails to comply with any order lawfully given in terms of any provision of these regulations; or
 - (b) he contravenes any restriction, prohibition or requirement imposed by or under these regulations.
- Penalties.
Amended by:
L.N. 426 of 2007. **6.** Any person who commits an offence against these regulations shall, on conviction, be liable:
- (a) on a first conviction to a fine (*multa*) of not less than one thousand and one hundred and sixty-four euro and sixty-nine cents (1,164.69) but not exceeding two thousand and three hundred and twenty-nine euro and thirty-seven cents (2,329.37);

- (b) on a second or subsequent convictions, to a fine (*multa*) of not less than two thousand and three hundred and twenty-nine euro and thirty-seven cents (2,329.37) but not exceeding four thousand and six hundred and fifty-eight euro and seventy-five cents (4,658.75), or to imprisonment for a term not exceeding two years, or to both such fine and imprisonment:

Provided that whenever any person is found guilty of committing an offence under these regulations by means of a vehicle, the owner of the said vehicle, where applicable, is held liable in the same manner and degree:

Provided further that the court shall order any person who has been found guilty of committing an offence against these regulations to pay for the expenses incurred by the public entities and, or other persons acting on their behalf involved in the implementation of these regulations and restitution of the environment as a result of the said offence, the revocation of the permit issued by the Police and the confiscation of the *corpus delicti*.

7. (1) The provisions of articles 23 and 30(1) of the Criminal Code shall, *mutatis mutandis*, apply to proceedings, in respect of offences against these regulations, so however that the disqualification from holding or obtaining a licence, permit or authority shall in no case be for less than one year.

Applicability of the
Criminal Code.
Cap. 9.

(2) Notwithstanding the provisions of article 370 of the Criminal Code, proceedings for an offence against these regulations shall be taken before the Court of Magistrates (Malta) or the Court of Magistrates (Gozo), as the case may be, and shall be in accordance with the provisions of the Criminal Code regulating the procedure before the said courts as courts of criminal judicature.

Cap. 9.

(3) Notwithstanding the provisions of the Criminal Code, the Attorney General shall always have a right of appeal to the Court of Criminal Appeal from any judgement given by the Court of Magistrates (Malta) or the Court of Magistrates (Gozo) in respect of proceedings for any offence against these regulations.

Cap. 9.

8. Annexes I to IV to these regulations are being published in the English language with the English text of these regulations.

Language of
Annexes.

ANNEX I

Limit values, time limits fixed for compliance with these values and monitoring procedures to be applied to discharges

1. Limit values and time limits

Industrial sector	Unit of measurement	Limit values which shall be complied with	
		on the entry into force of these regulations	three years after the entry into force of these regulations
1. Zinc mining, lead and zinc refining, cadmium metal and non-ferrous metal industry	Milligrams of cadmium per litre of discharge	0,3	0,2
2. Manufacture of cadmium compounds	Milligrams of cadmium per litre of discharge	0,5	0,2
	Grams of cadmium discharged per kilogram of cadmium handled	0,5	
3. Manufacture of pigments	Milligrams of cadmium per litre of discharge	0,5	0,2
	Grams of cadmium discharged per kilogram of cadmium handled	0,3	
4. Manufacture of stabilizers	Milligrams of cadmium per litre of discharge	0,5	0,2
	Grams of cadmium discharged per kilogram of cadmium handled	0,5	
5. Manufacture of primary and secondary batteries	Milligrams of cadmium per litre of discharge	0,5	0,2
	Grams of cadmium discharged per kilogram of cadmium handled	1,5	
6. Electroplating	Milligrams of cadmium per litre of discharge	0,5	0,2
	Grams of cadmium discharged per kilogram of cadmium handled	0,3	
7. Manufacture of phosphoric acid or phosphatic fertilizer from phosphatic rock			

2. Limit values expressed as concentrations which in principle shall not be exceeded are given in the above table for the industrial sectors in articles 2, 3, 4, 5 and 6. In no instance may limit values expressed as maximum concentrations be greater than those expressed as maximum quantities divided by water requirements per kilogram of cadmium handled. However, because the concentration of cadmium in effluents depends on the volume of water involved, which differs for different processes and plants, the limit values, expressed in terms of the quantity of cadmium discharged in relation to the quantity of cadmium handled, given in the above table shall be complied with in all cases.

3. The daily average limit values shall be twice the corresponding monthly average limit values given in the above table.

4. A monitoring procedure shall be instituted to check whether the discharges

comply with the emission standards which have been fixed in accordance with the limit values laid down in this Annex. This procedure shall provide for the taking and analysis of samples and for measurement of the flow of the discharge and the quantity of cadmium handled. Should the quantity of cadmium handled be impossible to determine, the monitoring procedure may be based on the quantity of cadmium that may be used in the light of the production capacity on which the authorization was based.

5. A sample representative of the discharge over a period of 24 hours shall be taken. The quantity of cadmium discharged over a month shall be calculated on the basis of the daily quantities of cadmium discharged. However, a simplified monitoring procedure may be instituted in the case of industrial plants which do not discharge more than 10 kg of cadmium per annum. In the case of industrial electroplating plants, a simplified monitoring procedure may only be instituted if the total volume of the electroplating tanks is less than 1,5 m³.

ANNEX II

Quality objectives

If the competent authority applies the exception referred to in regulation 7(3) of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, the emission standards which the competent authority shall establish and ensure are applied, pursuant to regulation 6 of those regulations, shall be fixed so that the appropriate quality objective or objectives from among those listed below is or are complied with in the area affected by discharges of cadmium. The competent authority shall determine the area affected in each case and shall select from among the quality objectives listed in paragraph 1 the objective or objectives that it deems appropriate having regard to the intended use of the area affected, while taking account of the fact that the purpose of these regulations is to eliminate all pollution.

1. The following quality objectives, which shall be measured sufficiently close to the point of discharge, are fixed, with the object of eliminating pollution within the meaning of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, and pursuant to regulation 3 of those regulations:

1.1. The total cadmium concentration in inland surface waters affected by discharges shall not exceed 5 µg/litre.

1.2. The concentration of dissolved cadmium in territorial waters and in internal coastal waters other than estuary waters affected by discharges shall not exceed 2,5 µg/litre.

1.3. In the case of waters used for the abstraction of drinking water, the cadmium content shall conform to the requirements of the Quality required of Surface Water intended for the Abstraction of Drinking Water Regulations.

2. In addition to the above requirements, cadmium concentrations shall be determined by the national network referred to in Article 5 and the results compared with the following concentrations

2.1. In the case of inland surface waters, a total cadmium concentration of 1 µg/litre.

2.2. In the case of estuary waters, a dissolved cadmium concentration of 1 µg/

litre.

2.3. In the case of territorial and internal coastal waters, other than estuary waters, a dissolved cadmium concentration of 0,5 µg/litre.

If these concentrations are not complied with at any one of the points on the national network, the reasons must be reported to the Commission.

3. The concentration of cadmium in sediments or shellfish, if possible of the species *Mytilus edulis*, shall not increase significantly with time.

4. Where several quality objectives are supplied to waters in an area, the quality of the waters shall be sufficient to comply with each of those objectives.

ANNEX III

Reference methods of measurement

1. The reference method of analysis used for determining the cadmium content of waters, sediments and shellfish is atomic absorption spectrophotometry after preservation and suitable treatment of the sample.

The limits of detection shall be such that the cadmium concentration can be measured to an accuracy of $\pm 30\%$ and a precision of $\pm 30\%$ at the following concentrations:

- (a) in the case of discharges, one-tenth of the maximum permitted concentration of cadmium specified in the authorization,
 - (b) in the case of surface water, 0,1 µg/litre or one-tenth of the cadmium concentration specified in the quality objective, whichever is the greater,
 - (c) in the case of shellfish, 0,1 mg/kg, wet weight,
 - (d) in the case of sediments, one-tenth of the cadmium concentration in the sample or 0,1 mg/kg, dry weight, with drying being carried out between 105 and 110°C at constant weight, whichever value is the greater.
2. Flow measurement shall be carried out to an accuracy of $\pm 20\%$.

ANNEX IV

Monitoring procedure for quality objectives

1. For each authorization granted in pursuance of these regulations, the competent authority shall specify the restrictions, monitoring procedure and time limits for ensuring compliance with the quality objective(s) concerned.

2. In accordance with regulation 7(3) of the Pollution caused by Certain Dangerous Substances discharged into the Aquatic Environment Regulations, the competent authority shall, for each quality objective chosen and applied, report to the Commission, on:

- (a) the points of discharge and the means of dispersal,
- (b) the area in which the quality objective is applied,

- (c) the location of sampling points,
- (d) the frequency of sampling,
- (e) the methods of sampling and measurement,
- (f) the results obtained.

3. Samples shall be sufficiently representative of the quality of the aquatic environment in the area affected by the discharges, and the frequency of sampling shall be sufficient to show any changes in the aquatic environment, taking into account, in particular, natural variations in the hydrological regime.
