



Technical Assistance for Strengthening the Capacity of the Ministry of Environment, Forests and Water Administration in Albania for Law Drafting and Enforcement of National Environmental Legislation

Draft

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Requirements on using the Sewage Sludge in agriculture¹

Draft 3

Version 1

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* *This Decision transposes Directive 86/278/EEC “On the protection of the environment and in particular of land, when sewage sludge is used in agriculture” amended by Council Directive 91/692/EEC, Council Regulation (EC) No 807/2003 and Regulation (EC) No 219/2009. CELEX no. 1986L0278, Official Journal L 181, 4.7.1986, p. 6.*



REPUBLIC OF ALBANIA

COUNCIL OF MINISTERS

DECISION

(Dated 17 April 2013)

No. _____, date _____

REQUIREMENTS ON USING THE SEWAGE SLUDGE IN AGRICULTURE *

Pursuant to Article 100 of the Constitution and to Article 34 of the Law No.10463, dated 22.9.2011, “On Integrated Waste Management”, upon the proposal of the Minister of Environment, Forestry and Water Administration, and the Minister of Agriculture, Food and Consumers Protection, the Council of Ministers;

DECIDED:

I. GENERAL

1. The goal of this Decision is to regulate the correct use of the sewage sludge in agriculture by encouraging those methods that prevent the harmful effects on land, vegetation, animals and human kind.

II. DEFINITIONS

2. In this decision, the following terms shall have these meanings:

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- a) **“Sludge”** means residual sludge from:
- i. Waste water treatment plant as defined in paragraph h;
 - ii. Small waste water treatment plant as defined in paragraph i;
 - iii. Individual or local wastewater treatment plant as defined in paragraph j.
- b) **“Treated sludge”** means sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use;
- c) **“Agriculture”** means the growing of all types of commercial food crops, including farming and for stock-rearing purposes;
- ç) **“Agricultural land”** is land that appears as such in the state cadastral registers, covered by field plants, orchards, vineyards and olive groves, wherever located and has its essential features fertility;
- d) **“Use”** means the spreading or application by any other means of sludge on or in land;
- dh) **“Producer”** means operator of the plant which produce, and/or place on the market treated sludge for use in agriculture;
- e) **“User”** means a physical or legal person, who is going to use the treated sludge generated by waste water treatment plant, small wastewater treatment plant and/or from individual or local wastewater treatment plant;
- ë) **“Competent Authority”** means: Ministry of Environment, Forestry and Water Administration (MoE), the National Environment Agency (NEA), the State Environment Inspectorate, Ministry of Agriculture, Food and Consumer Protection (MoA), the State Inspectorate on Land Protection and Centre of Agricultural Technology Transfer (CATT);
- f) **“Wastewater”** means the used water and water carried solids from domestic, commercial and industrial sources, which are polluted and/or whose properties are changed (wastewater or liquid waste matter), as well as the leaching from sanitary landfills or sludge from septic tanks;
- g) **“Urban waste water”** means domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water;
- gj) **“Industrial waste water”** means any waste water which is discharged from premises used for carrying on any trade or industry, other than domestic waste water and run-off rain water;
- h) **“Waste water treatment plant”** means facility that treats and purifies wastewater from domestic and/or industrial sources with total capacity of treatment more than 500 PE; including the final inlet section of the wastewater collector;
- i) **“Small waste water treatment plant”** means a waste water treatment plant with total capacity of treatment, less than 500 PE;
- j) **“Individual or local wastewater treatment plant”** means septic tanks, cesspools, bath pits, pit latrine or French drains for the onsite treatment on a property in areas where no public sewerage system is available;
- k) **“1 population equivalent (p.e.)”** means the organic biodegradable load having a five-day biochemical oxygen demand (BOD5) of 60 g of oxygen per day.”

III. THE SLUDGE

3. Without prejudice to the Law no.10463, dated 22.09.2011 “Integrated Waste Management” sludge may only be used in agriculture in accordance with the requirements of this Decision.
4. Limit values for concentrations of heavy metals in soil, to which the sludge is applied, limit values for heavy metals concentrations in the sludge and limit values for amounts of heavy metals which may be added annually to agricultural land, are given in Annexes I A, I B and I C.
5. Sludge shall not be used on land where the concentration of one or more heavy metals in the mentioned land exceeds the limit values specified in Annex I A, or the use of the sludge may result in these values being exceeded.
6. For the purposes of paragraph 5 as per above:
 - a) the maximum amount of sludge, expressed in tonnes of dry matter per hectare per year, which may be applied to land shall be decided by the NEA after obligatory consultations with the State Inspectorate of Land Protection, on a case by case, considering the geographical location and soil characteristics, based on results of soil analysis for heavy metals which will be performed based on requirements of Annex IIB. ;
 - b) the limit values specified in Annex I A for heavy metal concentration in sludge shall be observed.
7. Before sludge is used on agricultural land:
 - a) the sludge shall be analysed in accordance with the conditions set out in Annex II A;
 - b) the land shall be analysed in accordance with the conditions set out in Annex II B;
 - c) Analysis requested for the purposes of sub-articles (a) and (b) must be carried by labs accredited to use the methods of analysis set out in Annex II C.

IV. OBLIGATIONS OF THE PRODUCER

8. A producer of sludge used in agriculture is obliged to:
 - a) obtain an environmental permit of Type C, in accordance with Annex 1, 6.4 of Law no. 10448, dated 14.7.2011 "On the environmental permits";
 - b) treat the sludge;
 - c) provide regularly the users with the results of sludge analyses periodically carried out in accordance with Annex II A;
 - d) keep a register with data that includes:
 - i. the quantities of sludge produced and the quantities supplied for use in agriculture;
 - ii. the composition and properties of the sludge having regard to the parameters referred to in Annex II A of this decision;

- iii. the treatment which the sludge has undergone having regard to the treatment referred to in paragraph 2 (b);
 - iv. the name and address of each user of the sludge and the location of each site where the sludge is to be used.
- e) keep the register with data at the premises and make it available for information free of charge to any interested person during office hours.
 - f) report within 30 June of each year to the Competent Authority the registered data.
9. The producer upon request by the Competent Authority shall release information on the methods of treatment and the results of the analyses.

V. OBLIGATIONS OF THE USER

10. A user of sludge in agriculture, is obliged to:
- a) analyse land on which sludge is used in accordance with Annex II B;
 - b) take account of the nutrient needs of plants;
 - c) ensure that the quality of land, of surface water and of groundwater is not impaired;
 - d) have regard to the increased mobility and availability to crops of heavy metals where the sludge is used on land of which the pH is less than 6 and in compliance with Annex I A;
 - ç) obtain an environmental permit of Type C for that purpose, in accordance with Annex 1,6.3 of Law no. 10448, dated 14.7.2011 "On the environmental permits" before using the sewage sludge.
 - e) keep the register with data that includes:
 - i. the quantities of sludge used in agriculture;
 - ii. the surface and location of the agricultural land where sludge is used;
 - iii. name and address of the facility that has produced the sludge.
 - dh) report within 30 June of each year to the Competent Authority the registered data
11. A user of sludge shall notify to the respective Local Government Unit, about the land location where sludge is to be used.

VI. REQUIREMENTS ON USING AND PROHIBITION OF TREATED SLUDGE IN AGRICULTURE

12. Without prejudice to paragraph 13:
- a) The sludge shall be treated before being used in agriculture;
 - b) The use of untreated sludge is prohibited.
13. Requirements on prohibition of treated sludge used in agriculture:

- a) The use of residual sludge from individual or local wastewater treatment plant is prohibited unless it is used on grassland provided that the grassland is not grazed within six months following such use;
- b) Treated sludge shall not be used or supplied for use on grassland or forage crops where the grassland is to be grazed or the forage crops to be harvested within three weeks of such use;
- c) Except where sludge is used on grassland, samples shall be taken to a depth of twenty five centimetres or the depth of the surface soil if less, provided that such lesser sampling depth is at least ten centimetres;
- ç) Where sludge is used on grassland, samples shall be taken to a depth of not more than six centimetres.

VII. NATIONAL REGISTER ON USE OF SEWAGE SLUDGE IN AGRICULTURE

- 14. Competent Authority (NEA/CATT) shall create, keep and update the National Register on Use of Sewage Sludge in Agriculture which shall include all relevant data reported from producers and users. The Competent Authority (NEA/CATT) shall provide the data reported by the producer and the user to the General Directorate for Water and Sewage in order to update any existing register on water and sewage.
- 15. The Register referred in paragraph 14 shall be kept at the premises of the Competent Authority (NEA/CATT) and shall be available free of charge, to any interested person in compliance with provisions of Council of Ministers Decision no.16, date 4.1.2012 “On the right of public to have the environment information”.
- 16. The Minister responsible for environment and the Minister responsible for agriculture, through a Joint Ministerial Order, approve the formats of the registers referred in paragraph 8.b, 10.e and 14.

VIII. REPORTING ON IMPLEMENTATION OF THIS DECISION

- 17. The Minister responsible for environment and the Minister responsible for agriculture through Joint Ministerial Order shall endorse a format to be used for the drafting of the report, defined in paragraph 18, together with the information to be included.
- 18. The Ministries (MoE/MoA) shall jointly draft the report on the implementation of this Decision within 30 October 20XX and thereafter every three years.
- 19. The National Environment Agency, the Regional Environment Agency, the State Inspectorate on Environment, the State Inspectorate of Land Protection, Centre of Agriculture, Technology Transfer and all other relevant institutions shall provide relevant information to the Ministry (MoE/MoA) to prepare the said report.

20. The report referred in paragraph 18 is published in the official website of the MoE/MoA and made available to the public.

IX. FINAL AND TRANSITIONAL PROVISIONS

21. Sludge from sewage treatment plants with a treatment capacity below 300 kg BOD5 per day, corresponding to 5 000 p.e., which are designed primarily for the treatment of domestic waste water, may be exempted from the application of the provisions of paragraph 8 (a), 8 (b) (ii) , 8 (b) iiiii, 8 (b) IV, and paragraph 9.
22. Violation of the provisions of this decision, when they do not constitute criminal offense, will be subject to sanctions provided in Article 62 of Law no. 10 463, dated 22.9.2011"On the integrated waste management”and other sanctions foreseen by relevant legal provisions.
23. The use of treated and untreated sludge is prohibited for a period not shorter than xxx years after the entry into force of the present Decision.
24. The transition period defined in paragraph 23 shall terminate upon an Order of the Minister, which shall be published in the Official Journal.
25. The Ministry of Environment, Forestry and Water Administration, the Ministry of Agriculture, Food and Consumer Protection, the NEA, the CATT, the State Environment Inspectorate and State Inspectorate on Land Protection are responsible for implementation of this Decision.

This decision enters into force after publication in the Official Journal.

PRIME MINISTER

SALI BERISHA

ANNEX I A

LIMIT VALUES FOR CONCENTRATIONS OF HEAVY METALS IN LAND (mg/kg of dry matter in a representative sample, as defined in Annex II C, of land with a pH of 6 to 7)

Parameters	Limit values
Cadmium	3
Copper	100
Nickel	75
Lead	200
Zinc	300
Mercury	1,5
Chromium	-

ANNEX I B

LIMIT VALUES FOR HEAVY-METAL CONCENTRATIONS IN SLUDGE FOR USE IN AGRICULTURE

(mg/kg of dry matter)

Parameters	Limit values
Cadmium	30
Copper	1 000
Nickel	400
Lead	800
Zinc	3500
Mercury	20
Chromium	

ANNEX I C

LIMIT VALUES FOR AMOUNTS OF HEAVY METALS WHICH MAY BE ADDED ANNUALLY TO AGRICULTURAL LAND, BASED ON A 10-YEAR AVERAGE

(kg/ha/yr)	
Parameters	Limit values (1)
Cadmium	0,15
Copper	12
Nickel	3
Lead	15
Zinc	30
Mercury	0,1
Chromium	

ANNEX II A
ANALYSES OF SLUDGE

1. As general rule, sludge must be analysed at least every six months. Where changes occur in the characteristics of the waste water being treated, the frequency of the analyses must be increased. If the results of the analyses do not vary significantly over a full year, the sludge must be analysed at least every 12 months².
2. In the case of sludge produced by the treatment plants referred to in paragraph 21, if a sludge analysis has not been carried out in the 12 months preceding the implementation, of this decision, an analysis must be carried out within 12 months of such implementation, or, where appropriate, within six months of the decision authorizing the use in agriculture of sludge from such a plant. CA (NEA) shall decide on the frequency of further analyses on the basis of the results of the initial analysis, any changes in the nature of treated waste water and any other relevant factors.
3. Subject to the provisions of paragraph 4, analysis should cover the following parameters:
 - dry matter, organic matter,
 - pH,
 - nitrogen and phosphorus,
 - Cadmium, copper, nickel, lead, zinc, mercury, chromium.
4. In the case of copper, zinc and chromium, where it has been shown, to the satisfaction of the CA that they are either not present at all or present only in negligible quantities in the waste water treated by the sewage plant, CA (NEA) shall decide on the frequency of the analyses to be carried out.

² The frequency of analyses depends on the capacity of waste water treatment plants. For small waste water treatment the frequency is once a year. For waste water treatment plant above 500 PE the frequency is twice per year.

ANNEX II B
ANALYSES OF LAND

1. Whenever sludge other than sludge from the treatment plants referred to in paragraph 21 is used, CA (CATT) must first ensure that the heavy metal content of the land does not exceed the limit values laid down in accordance with Annex IA.
2. For this purpose, CA (CATT) shall decide what analyses to carry out, taking account of available scientific data on land characteristics and homogeneity.
3. CA (CATT) shall decide on the frequency of further analyses, taking account of the metal content of the land prior to the use of sludge, the quantity and composition of the sludge used and any other relevant factors.
4. Analysis should cover the following parameters:
 - pH,
 - cadmium, copper, nickel, lead, zinc, mercury and chromium

ANNEX II C
SAMPLES AND METHODS OF ANALYSIS

1. Land sampling

The representative land samples for analysis should normally be prepared by mixing together 25 core samples taken over an area not exceeding 5 hectares which is farmed for the same purpose. The samples must be taken to a depth of 25 cm unless the depth of the surface land is less than that value; however, the sampling depth in the latter case must not be less than 10 cm.

2. Sludge sampling

Sludge must be sampled after processing, but before delivery to the user, and should be representative of the sludge production.

3. Methods of analysis

Analysis for heavy metals must be carried out following strong acid digestion. The reference method of analysis must be that of atomic absorption spectrometry and the limit of detection for each metal should be no greater than 10 % of the appropriate limit value.