NOTE: *THIS DOCUMENT HAS BEEN TRANSLATED FROM THE ORIGINAL ALBANIAN BY THE WATER SUPPLY AND SEWERAGE ASSOCIATION OF ALBANIA AND IS NOT AN OFFICIAL TRANSLATION BY THE ALBANIAN GOVERNMENT*

REPUBLIC OF ALBANIA

MINISTRY OF INFRASTRUCTURE AND ENERGY

MINISTRY OF TURISM AND ENVIRONMENT

NO. 1121 Prot., Tirana, on 01.02.2024

No. 819 Prot.
Tirana, on 01.02.2024

JOINT INSTRUCTION
No. 01, dated 01.02.2024
ON
ADOPTION OF TECHNICAL REGULATION
FOR THE STANDARDS ON WASTE WATER TREATMENT FOR ENTITIES THAT DISCHARGE WASTE AND UNTREATED WATERS INTO OR NEAR BATHING BODIES

Pursuant to Article 102, paragraph 4, of the Constitution and Article 5, paragraph 2, of Normative Act No. 8, dated 28.12.2023, 'On the adoption of urgent measures for infrastructure protection and improvement for the treatment of waste waters discharged near or into bathing waters',

HEREBY INSTRUCT

1. The approval of the Technical Regulation on the standards of waste water treatment for entities that discharge waste and untreated waters into or near bathing waters, as per the attached text to this instruction.
2. The National Water Supply and Sewerage Agency, Task Force, and entities to be monitored under Normative Act No. 8, dated 28.12.2023, 'On adoption of urgent measures for infrastructure protection and improvement for the treatment of waste waters discharged into or near bathing waters,' are charged with enforcement of this Instruction.

This Instruction shall enter into force upon publication in the Official Journal.

DEPUTY PRIME MINISTER AND MINISTER
BELINDA BALLUKU
[signature, seal]

MINISTER
MIRELA KUMBARO (FURXHI)
[signature, seal]

EXPLANATORY NOTE ON THE JOINT INSTRUCTION

'ADOPTION OF TECHNICAL REGULATION ON THE STANDARDS ON WASTE WATER TREATMENT FOR ENTITIES THAT DISCHARGE WASTE AND UNTREATED WATERS INTO OR NEAR BATHING WATERS

1. PURPOSE AND OBJECTIVES

The joint instruction 'On approval of the technical regulation on the standards on waste water treatment for entities discharging waste and untreated waters into or near bathing waters' aims to establish technical standards based on Normative Act No. 8, dated 28.12.2023, 'On adoption of urgent measures on infrastructure protection and improvement for the treatment of waste waters discharged into or near bathing waters'.
This instruction is proposed for approval based on Article 5, paragraph 2, of Normative Act No. 8, dated 18.12.2023, which explicitly states that '*The Minister responsible for infrastructure and the Minister responsible for the environment, by joint directive, approve the technical regulation on the standards on waste water treatment, pursuant to this Normative Act and in accordance with provisions of letter 'a', paragraph 2, Article 4, of Law No. 9115, dated 24.7.2003, 'On environmental treatment of waste water', as amended.'.*
This Technical Regulation facilitates the direction of entities engaged in economic activities in coastal and along the shores of lakes and rivers, or undergoing construction or permit application processes, based on their capacity and existing technical solutions, to install waste water treatment plants as specified in Normative Act No. 8, dated 28.12.2023.

It initially defines the permissible discharge values from waste water treatment that must be met by the respective entities, the technology for waste water treatment, which must involve active sludge treatment, as well as the replacement of septic tanks. On the other hand, instructions have been given for the installation of the waste water treatment plant, which must include the pre-treatment unit or mechanical treatment, the biological treatment unit, and the outlet control system at the plant's discharge point.

Additionally, technical conditions for the installation of the plant are stipulated, including the process of excavation, filling, and restoration of surfaces to their original state.

Prior to the final drafting of this draft instruction, the opinion of the Ministry of Tourism and Environment was obtained, which is attached to this explanatory note, along with respective explanations.

This draft directive does not have additional effects on the state budget.

TECHNICAL REGULATION

ON THE STANDARDS ON WASTE WATER TREATMENT FOR ENTITIES THAT DISCHARGE WASTE AND UNTREATED WATERS INTO OR NEAR BATHING WATERS

CHAPTER I

INTRUDUCTION

Article 1
GENERAL PROVISIONS

1. This Regulation is issued in accordance with Article 5, paragraph 2, of Normative Act No. 8, dated 28.12.2023, 'On adoption of urgent measures for infrastructure protection and improvement for the treatment of waster waters discharged into or near bathing waters' (hereinafter Normative Act No. 8, dated 28.12.2023).

2. Entities conducting economic activities in coastal, tourist, lakeside, and riverside areas, discharging waste waters generated by their activities, will be monitored and inspected for compliance with the standards set forth in this Technical Regulation.

3. Monitoring and inspection of the implementation of the standards provided in this Technical Regulation are carried out by the Task Force, established under the authority of the head of the National Water Supply and Sewerage Agency (AKUK).

Article 2
Purpose

The purpose of this Regulation is to define standards on waste water treatment of polluted and untreated waters for all entities, as stipulated in Normative Act No. 8, dated 28.12.2023.

Article 3
Terms

The terms used have the same meaning as those used in Article 2 of Normative Act No. 8, dated 28.12.2023.

CHAPTER II

Legal Basis

Article 4

Existing Regulatory Framework

1. This regulation has been drafted in accordance with:

a) Law No. 9115, dated 24.07.2003 'On the environmental treatment of waste water'. as amended;

b) Law No. 111/2012 'On the integrated management of water resources', as amended;

c) Decision of the Council of Ministers No. 177, dated 31.3.2005 'On the norms allowed for discharges and zoning criteria on the receiving water environment':

d) Decision of the Council of Ministers No. 83, dated 10.2.2021 "On the approval of technical rules for design and construction for water supply and sanitation";

e) Directive of the European Union on urban wastewater treatment (91/271/EEC);

f) Directive of the European Parliament and Council dated 15.02.2006 on the management of bathing water quality;

g) Directive 86/278/EEC "On the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture";

h) Decision of the Council of Ministers No. 448, dated 26.07.2023 "On the approval of the National Strategy for the Water Supply and Sewerage Sector 2023-2030".

CHAPTER III

Technical Implementation

Article 5

Entities to be monitored

Entities specified in Article 2 of Normative Act No. 8, dated 28.12.2023, shall be monitored for compliance with the methods and standards set forth in this Technical Regulation.

Article 6
Categorization of Entities

Entities engaging in existing activities, under construction, or having applied for construction permits, based on existing technical capacity and solutions, whether connected to the public sewerage network or not, should install wastewater treatment plants according to the categories specified in Article 2 of Normative Act No. 8, dated 28.12.2023.

Article 7

Establishing the permissible discharge values from waste water treatment

1. The permissible discharge values from the waste water treatment, which entities are obliged to comply with, are specified in Annex 2 of this Technical Regulation.

2. Parameters required in points 4 and 5 of Annex 2 apply to all entities subject to the Normative Act, conducting economic activities in sensitive areas listed in Annex 4.

3. Entities engaging in economic activities according to points 1 to 12 of Article 2 of Normative Act No. 8, dated 28.12.2023, should treat waste waters generated by their activities in accordance with the permissible discharge values from waste water treatment and the deadlines specified in the Normative Act.

Article 8

Waste water treatment technology

1. The technology of the wastewater treatment plant should be that of activated sludge treatment.

2. All entities that have Septic Tanks should replace them with Active Sludge Treatment Plants and meet the standards for permissible discharge values as specified in Annex 2 of this Technical Regulation.

Article 9

Wastewater sewage system

1. The internal sewage system within buildings and the yard network within the territory of the entities up to the point of connection with the Plant should be designed and constructed according to the provisions of Council of Ministers Decision no. 83, dated 10.2.2021 "On the approval of technical rules for design and construction for water supply and sewerage".

2. The connection point between the internal sewage network and Waste Water Treatment Plant must be made after the control pit, as specified in Council of Ministers Decision no. 83, dated 10.2.2021.

3. The connection between the control pit and the plant entrance should comply with the current technical conditions and standards, and it should be implemented with piping based on the capacities of the Plant to be installed according to the specifications in Article 10.

4. The Plant is a technological unit that treats waste and untreated waters and should be designed and implemented according to the provisions of Article 11 of this Technical Regulation.

5. The discharge of treated waters from the plant will be deposited into a control pit, constructed to accommodate the plant's processing capacity.

6. This pit should be used for taking samples for water quality tests, which will be considered an integral part of the plant.

Article 10

Estimating the capacity of the Waste Water Treatment Plant

1. The capacity of the Waste Water Treatment Plant will be determined based on the size of the entities conducting economic activities, as defined in Article 2 of Normative Act no. 8, dated 28.12.2023, and the utilization capacity.

2. The average utilization capacity for entities engaged in economic activities per unit and room is set at 3 persons.

3. The utilization capacity for service units is set at 1.75 m^2 per person.

4. The amount of waste waters discharged by each person shall be taken as 100% of the amount of water consumed, according to the methodology for setting the fees of the Water Regulatory Body.

5. The amount of water consumed per person will be set at 200 liters per person per day, according to the provisions of Council of Ministers Decision No. 83, dated February 10, 2021, "On the approval of the technical rules of design and construction for water supply and sewerage."

6. For service units, the amount of water consumed shall be 40 liters per person per day, based on the best European standards.

7. The capacity of the waste water treatment plant is determined by the pollution load it processes and is expressed in Population Equivalents (PE) or "EP, equivalent to the population." One PE is equivalent to 200 liters of urban waste water per day or 1 PE = 1 person.
For service units, capacity estimation is based on the ratio of the water consumed per person per day to the specified amount for urban waste water for 1 PE. Specifically, 1 person is equal to 0.2 PE.

Article 11

Wastewater treatment plant

1. The plant should encompass:
pre-treatment unit or mechanical treatment;
b) the biological treatment unit;
c) Outlet control system at the plant's discharge point.

2. The pre-treatment unit or mechanical treatment shall accept all incoming untreated wastewaters and is identified as the sedimentation unit, also serving as a repository for excess sludge. Through sedimentation, this unit primarily reduces the solid mass of waste waters, thus partially decreasing the pollution level and improving the quality to some extent, in accordance with the permissible discharge values specified in Annex 1 of this Technical

Regulation. The solid mass settled as sludge at the bottom of the reservoir undergoes decomposition through the anaerobic (fermentation) process, without the active presence of

oxygen. The undecanted, pre-treated portion of the inlet flows through to the biological treatment unit.

3. The biological treatment unit generally treats waste waters using the conventional activated sludge method, reducing organic pollution to levels accepted by legislation. In this unit, all water purification processes occur, including aeration, settling of activated sludge, separation of treated clean water, as well as the discharge of treated water and removal of excess sludge.

4. The outlet control system at the plant's discharge point serves not only as a control point during system operation but also as a reservoir for collecting treated water.

5. When the treated water is discharged into the public network of urban waste waters, it will be connected via the discharge line to the nearest collector or network.

6. In the absence of a public network for urban waste waters, when the treated water will not be discharged into the network or reused for irrigation, the sizing of the control system should consider a waiting time/period for the storage of treated water from 5 to 7 days.
This period is necessary to facilitate the discharge of these waters through technologically suitable suction means specifically tailored for this service.

7. The stored amount of treated water should be removed through suction means to the nearest collector or treatment plant by licensed private or state operators providing this service according to the environmental legislation in force.

8. The typical layout of the Waste Water Treatment Plant is specified in Annex 5 of this Technical Regulation.

Article 12

Reuse of Treated Water

The reuse of treated water can be utilized for irrigating green spaces within complexes or cleaning surrounding areas, provided that the permitted discharge values for waste waters comply with the specifications outlined in Annex 1 of this Technical Regulation.

Article 13

Technical Requirements for Installing a Waste Water Treatment Plant

1. The installation process of the Treatment Plant is carried out as follows:

a) Plants should be constructed using materials such as PVC-U, Polyethylene (PE), Polypropylene (PP), and Glass Reinforced Polyester (GRP-UP).

b) Waste Water Treatment System should be installed underground, following the manufacturer's guidelines;

c) Excavations should be carried out beforehand to open a pit of suitable dimensions to allow for the installation of the plant. The bottom of the pit will be filled with a layer of sand, 10 cm thick, with a grain size of 0 - 5 mm. This layer should be leveled to ensure the installation of the plant at the required level as per the technical project. Additionally, depending on the total weight of the plant, the sand layer should be replaced with a 10 cm thick layer of concrete C 12/15;

ç) The biological treatment unit should be connected to the control panel with PVC piping of a diameter specified in the technical project;

d) The biological treatment unit should be connected to the pre-treatment unit with PVC piping of a diameter specified in the technical project;

dh) If there is no toilet ventilation column in the internal building installations, then a ventilation pipe with a diameter of 100 mm must be installed at the top.

e) After installation, the spaces between the pit and the plant should be filled with sand with a grain size of 0 - 5 mm.

ë) The upper part should be concrete sole, having a 10 cm thick layer of concrete C 12/15. If the area will be subjected to vehicle traffic, it should have 25 cm thick layer of reinforced concrete C 20-25;

f) According to manufacturer's instructions, the aeration process should start by connecting the compressor to the 220 Volt power supply system;

g) To stimulate and accelerate the biological treatment process, bacteria preserved under laboratory conditions can enter the biological treatment unit.

gj) During the installation of the plant, care must be taken to avoid isolated zones in the sedimentation area where sludge can stagnate, as they can cause anaerobic process activity.

2. The excavation process is carried out as follows:

a) Excavation will be conducted in accordance with the technical conditions for construction using excavation tools appropriate for the land category. The excavation area should respect the dimensions of the plant as a whole and each unit individually, adhering to the following:

maintaining a minimum distance of 100 cm from the vertical sides of the plant in instances where the land category and project depth permit excavations with vertical slopes, as specified in the technical requirements.

b) The depth of the excavation should allow for the formation of a leveling layer between the excavated level and the outer part of the plant's base, maintaining a minimum height of 10 cm. The filling material for the leveling layer should be natural sand with grain sizes ranging from 0 to 5 mm, or a layer of concrete C 12/15 with a thickness of 10 cm;

c) The steepness of the excavation slopes should comply with the technical implementation conditions based on the land category, while always maintaining a minimum distance of 100 cm from the outer vertical sides of the plant;

ç) Protective panels (palisades) during excavation:

d) The contractor is responsible for providing, installing, and maintaining all necessary materials to safeguard the sides and bed of all excavated sections, preventing soil collapse outside the excavation and damage to adjacent structures. If, for any reason, any part of the canal bed, sides, or edges are damaged, all necessary corrective measures must be taken, including excavation and removal of all excavated material within and outside the nominal boundaries of the excavations;

i. When considering excavations with steep slopes (excluding those outlined in standard drawings) and lacking protective panels, the excavated faces should exhibit stable steepness and height.

ii. When the land to be excavated has a slope towards its bed, immediate protection must be ensured after excavation. Particular care should be taken with the soil, which, although stable during excavation, may become unstable due to rain or the flow of groundwater. If the width of the excavation section increases unavoidably due to sliding or collapsing of the canal faces, work should be suspended to allow for the review of unit design in relation to the width of the excavated section bed, and if necessary, the class of the fill material for the bed section should be modified;

iii. The costs for protecting the excavated section shall be entirely covered by the investor;

d) The protection of the excavated section shall depend on its depth and properties of the excavation material;

i. Depth <1.25m: Generally, no protective measures should be used, except in cases of very clayey, sandy, or friable soils. In cases of very friable soils, instead of protective panels, the sides of the excavated section may be inclined at a 45-degree angle.

ii. Depth between 1.25m and 1.5m: If the Contractor chooses not to use protective panels in a section, they must submit a geotechnical/geological report on the excavation material in that section, justifying this decision.

iii. Depth >1.5 m: Protective panels shall be used except in cases where the soil to be excavated is strong rock.
iv. In areas where excavation will be performed using machinery, the final 10 cm of the canal should be excavated manually;
v. The excavated space at the specified depth should be leveled. Prior to the installation of plant units, the soil of the excavated section bed or imported material should be filled to a minimum depth of 10 cm.

dh) Scarification (Leveling) and Concrete Layers

i. All foundation surfaces should be leveled, profiled, and compacted with suitable materials or concrete in a manner that ensures subsequent work execution does not impact the base of the plant units. If not stated otherwise in this document, all foundation surfaces should be covered with a layer of concrete C 12/15 with a minimum thickness of 10 cm immediately after excavation is completed.

3. The filling process is carried out as follows:

a) The space between the excavated volume and the area occupied by the plant and its units will be filled with sand ranging in particle size from 0 to 5 mm. In cases of connecting pipes between units, filling will be done with sand ranging in particle size from 0 to 5 mm, ensuring layers of 20 cm below, alongside, and above the pipes. The area above the sand should be filled with inert material with particle sizes of 0/32 mm.

b) All excavated sections should be filled up to the level of the original ground surface, unless otherwise specified in the layouts. The remaining depth above the fill will be refilled with approved selected material free from stones and organic debris. The imported backfill material 0/32, 0/63, etc., should have a particle size distribution curve that falls within the approved limits. Excavated fill material can be used if it meets the requirements and is compacted in 20 cm layers. If sections of the excavated area are on roads, the backfilling should end 60 cm below the final surface layer.

c) If sections of the excavated area are on roads, the asphalt should be filled with selected material and compacted in layers no more than 20 cm thick. This material should be moistened to the optimal moisture content and compacted to a density of no less than 90% of the maximum dry density at optimal moisture content, or the surrounding material.

ç) Backfilling the excavated sections up to the surface

i. From the top layer of sand to ground level, the channel should be filled with approved selected material, compacted using approved mechanical methods, in layers no more than 150 mm thick;

ii. Each layer should be compacted separately. The compaction rate should not be less than 95% of the maximum dry density. An adequate number of compaction devices should be provided;
iii. When necessary, the moisture content of the backfill material should be adjusted to aid compaction by drying or moistening. A sufficient amount of water should be available on-site during the backfilling of the channels;
iv. During backfilling, provision should be made for any decline that may occur before the end of the maintenance period. When necessary, at the end of the maintenance period, all excess material should be removed or any deficiencies in filling should be addressed at specified levels.
v. If the excavated material is insufficient or unsuitable for filling, imported filling materials from approved stone quarries should be utilized. In instructed cases, the excavations of the sections will be filled with concrete of class C 12/15.

4. The process of restoring surfaces to their original state is as follows:

a) After refilling the excavated sections to the specified level, all previously removed surface soil will be replaced, distributed, and leveled evenly throughout the excavated area.

b) The areas previously covered with grass will be seeded with the same quality grass seed and maintained until the new grass is established properly.

5. The process of restoring surfaces to their original state on asphalt roads is as follows:

a) The restoration to the original state on asphalt roads should adhere to the requirements of the relevant Road Management Authority. The upper layer of surface restoration on asphalt roads should be well laid and finished at the level of existing surfaces. It should be maintained as such, including filling with additional material, when necessary, until the end of the maintenance period or until handed over by the relevant authority.

b) Gravel roads and unpaved roads will be restored to their original condition. If the original road construction cannot be clearly implemented, then a large, approved gravel layer of 100 mm and a well-graded gravel material of 150 mm, compacted to 95% of the maximum density according to the (DIN 18127, 2012-09) test, shall be provided.

Article 14

Management of the sludge generated from wastewater treatment

1. Promoting the reuse of sludge is encouraged to minimize the negative effects arising from its disposal at authorized sites. The sludge contains organic substances and nutrients, and

its agricultural use contributes to soil fertility by reducing the reliance on chemical and fossil fertilizers.

2. Entities, as producers of sludge should strive to minimize sludge production and enhance its quality by promoting its agricultural use wherever possible. Agricultural use is only allowed after the necessary analyses have been conducted and the sludge is within the permissible limits for agricultural use according to DCM No. 127/2015.

3. The sludge producer should establish a contract with licensed private or state operators who offer this service in accordance with the environmental legislation in force, for the transportation of sludge to the nearest facility. The contract should also include a separate agreement that the sludge producer enters into with the licensed receiving entity for this operation.

4. The planned discharge schedule and volumes should be available for inspection at all times.

5. When the sludge producer meets the requirements to treat the sludge using suitable technological mechanisms within their plant system, they should ensure and provide evidence that the resulting dried mass has been properly disposed of in its final form.

6. If deficiencies or issues regarding contracts with entities, as outlined in point 3 above, are identified, the Task Force notifies the responsible institutions.

Article 15

Monitoring

1. The monitoring process primarily involves monitoring the discharge of effluents from the Wastewater Treatment Plant and should include regular collection of samples for analysis after the treatment of wastewater at the plant, as specified in Annex 3 of this regulation

2. Entities are required to establish a registry of monitoring analyses, which is subject to control by the Task Force.

3. This registry can be made available to interested institutions upon request.

4. These samples are rigorously tested for a range of pollutants, ensuring compliance with quality standards.

Annex 1
Entities according to categorization

Typology of entity	Capacity	Category	Explanations
1. Tourist traditional village, tourist complex, Resort, Accommodation structure	10 to 60 units 60 to 100 units 100 to 500 units 500 units or more	D C B A	
2. Guesthouse, Hostel, Bed and Breakfast (B&B), Hotel, Motel	Less than 60 rooms 60 to 200 rooms 200 rooms or more	C B A	
3. Agrotourism Camping, Service Units	Less than 100 m^2 From 100 m^2 to 250 m^2 From 250 m^2 to 500 m^2 From 500 m^2 to 2,500 m^2 2,500 m^2 and more	E D C B A	For service units, the dining area should be referenced.

Annex 2
Permitted discharge values according to categories

Parameters	Unit	Categories or Maximum Allowed Values				
		A	B	C	D	E
1. Biochemical oxygen demand BOD5	mg/l	20	30	40	50	200
2. Chemical oxygen demand COD	mg/l	50	50	100	100	400
3. Suspended solids	mg/l	30	40	50	50	60
4. Total phosphorus	mg/l	2.0	2.0	2.0	2.0	
5. Total nitrogen	mg/l	10	10	15	15	
6. Total solid, partially solid and liquid fats (oils)	mg/l	20	20	20	20	100
7. Intestinal enterococci (cfu/100 ml)		200* 100**	200* 100**	200* 100**	200* 100**	200* 100**
8. Escherichia coli (cfu/100 ml)		500* 250**	500* 250**	500* 250**	500* 250**	500* 250**

(*) Parameters required for enclosed waters
(**) Parameters required for coastal and intermediate waters
The required parameters at points 4 and 5 will be applicable only in cases where treated waters discharge directly into the receiving waters, which are part of the designated sensitive areas outlined in Annex 3.
The required parameters at points 7 and 8 will be applicable only in cases where treated waters discharge directly into bathing waters through the collector of the entity

Annex 3
The minimum number of samples and the frequency of their collection

Plant capacity	**The specified demand for sampling**
Up to 50 PE	4 samples, with at least 2 of them taken during the summer season
Up to 180 PE	4 samples, with at least 2 of them taken during the summer season
Up to 300 PE	4 samples, with at least 2 of them taken during the summer season
Up to 560 PE	4 samples, with at least 2 of them taken during the summer season

Entities are required to establish a registry of monitoring analyses, which is subject to control by the Task Force. The sampling frequency by the entities is mandated as specified in the table above.

The Task Force, regardless of the above provisions, conducts independent quality control of treated water by taking samples as required.

Annex 4
Sensitive Area List

Name of sensitive area	Name of River Basin	The number of inhabited areas located above the sensitive area
01 Fierza Lake	Drin	8
02 Koman Lake	Drin	1
03 Kune Vain Tale North	Drin	5
04 Shkodra Lake	Drin	2
05 Buna River Estuary/Vilun Lagoon	Buna	6
06 Ohrid Lake	Drin	4
07 The Great Prespa Lake	Drin	1
08 Small Prespa Lake	Drin	0
09 Ulëz lake	Mat	1
10 Kune Vain Tale South	Mat	2
11 Patok	Mat	5
11 Patok	Ishëm	6
11 Patok	Erzeni	1
12 Bish Kamez Rrushkull	Erzeni	10
13 Karavasta Lagoon	Shkumbin	10
13 Karavasta Lagoon	Seman	29
14 Belsh Lakes	Shkumbin	1
15 Banja Lake	Seman	1
16 Vjosa River and Narta Lagoon	Vjosa	13
17 Orikum Lagoon	Vjosa	3
18 Butrint Lake	Vjosa	2
Total		**111**

Note: The source of information is the project "Water Sector Planning for EU Negotiations," funded by the Swedish Government.

Annex 5

Typical scheme of the Wastewater Treatment Plant