

THE MINISTRY OF
CONSTRUCTION

THE SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

No. 04/2015/TT-BXD

Hanoi, April 3, 2015

CIRCULAR

Guiding a number of articles of the Government's Decree No. 80/2014/ND-CP of August 6, 2014, on water drainage and wastewater treatment^(*)

Pursuant to the Government's Decree No. 80/2014/ND-CP of August 6, 2014, on water drainage and wastewater treatment;

Pursuant to the Government's Decree No. 62/2013/ND-CP of June 25, 2013, defining the functions, duties, powers and organizational structure of the Ministry of Construction;

At the proposal of the Director of the Technical Infrastructure Agency;

The Minister of Construction promulgates the Decree guiding the implementation of a number of articles of the Government's Decree No. 80/2014/ND-CP of August 6, 2014, on water drainage and wastewater treatment.

Article 1. Management of decentralized wastewater treatment

1. Entities applying decentralized wastewater treatment solutions shall comply with Clause 1, Article 23 of the Government's Decree No. 80/2014/ND-CP of August 6, 2014, on water drainage and wastewater treatment.

2. Decentralized wastewater treatment solutions:

a/ On-site decentralized wastewater treatment is applicable to isolated discharging households with a total volume of below 50 m³ of wastewater per day and night and wastewater treatment equipment/station located within the premises of the discharging household;

b/ Cluster-based decentralized wastewater treatment is applicable to discharging households located near one another with a total volume of between 50 m³ and 200 m³ of wastewater per day and night. Depending on specific conditions, a wastewater treatment station may be installed within the premises of a discharging entity or at a separate location convenient for collecting wastewater from discharging entities;

c/ Zone-based decentralized wastewater treatment is applicable to a certain administrative territory with a total volume of between 200 m³ and 1,000 m³ of wastewater per day and night and the wastewater treatment equipment/station located under an approved construction master plan or water drainage master plan.

Provincial-level People's Committees shall, based on wastewater sources and receiving waters, economic and topographic conditions, and the capacity of management and operation

^(*) Công Báo Nos 535-536 (03/5/2015)

of water drainage systems in their localities, select appropriate decentralized wastewater treatment solutions.

3. Criteria for selection of decentralized wastewater treatment technology:

- a/ Capacity of the wastewater treatment station/plant;
- b/ Constituents and characteristics of generated wastewater, severity of pollution, load capacity of receiving waters, and location of discharging treated wastewater ;
- c/ Required level of energy used for collection and treatment;
- d/ Required quality of treated wastewater according to applicable standards and technical regulations;
- dd/ Technical and financial conditions and capacity of management and operation of wastewater treatment stations/plants;
- e/ Climatic, topographic, engineering geological and hydrogeological conditions;
- g/ Ability to expand or increase capacity and connect to the centralized wastewater treatment system in the future;
- h/ Other relevant environmental factors.

4. Technologies applied in decentralized wastewater treatment:

- a/ Septic tanks;
- b/ Baffled septic tanks;
- c/ Baffled septic tanks with anaerobic upflow filter;
- d/ Anaerobic ponds, aerobic-anaerobic ponds, stabilization ponds;
- dd/ Constructed wetlands;
- e/ Sequence batch reactors;
- g/ Other technologies.

5. Project owners of water drainage systems shall, based on the local construction master plan or water drainage master plan and specific conditions, decide to select appropriate decentralized wastewater treatment technologies.

Article 2. Management of sludge from water drainage systems

1. Options for treating sludge from water drainage systems

- a/ Treating sludge at wastewater treatment stations/plants that accommodate a sludge treatment area;
- b/ Treating sludge in sludge treatment zones or solid waste treatment facilities under an approved master plan.

Water drainage units shall, based on the volume of sludge that needs to be treated, the location of the treatment zone/solid waste treatment facility, treatment technologies and local economic-technical conditions, select an appropriate sludge treatment option.

2. Treatment of sludge in water drainage systems includes:

- a/ Preliminarily separating water, stabilizing sludge, and dissolving degradable organic matter;
- b/ Preliminarily treating sludge, increasing self-dewatering capacity of sludge;

- c/ Drying sludge;
- d/ Transporting and decontaminating sludge;
- dd/ Re-using sludge for different purposes;
- e/ Treating sludge and sludge water up to applicable technical regulations.

3. Technologies applied in sludge treatment:

- a/ Burying;
- b/ Anaerobic digestion to recover biogas;
- c/ Bio-stabilization in reservoirs and constructed wetlands;
- d/ Composting;
- dd/ Directly or indirectly drying sludge;
- e/ Incinerating sludge for recycled energy and use of ash;
- g/ Other technologies.

Based on the constituents and characteristics of sludge, economic and technical and environmental conditions and specific conditions of each locality, project owners shall select appropriate sludge disposal technologies.

4. Re-use of treated sludge must:

- a/ Be based on practical demand for sludge-based products;
- b/ Based on different purposes, ensure technical regulations relating to sludge-based products;
 - c/ Determine the sludge use ratio according to use purpose, land environmental standards, heavy metal contents in soil, the rate of annual metal residues and limit values for pollutants in sludge, quantity and composition of nutrients that planted trees will absorb.

5. The quality of treated sludge must ensure relevant standards and technical regulations, including:

- a/ Regulations on odor;
- b/ Regulations on physical and chemical contents and nutrients (pH, water and nutrient contents, and organic matter, phosphor and potassium);
- c/ Regulations on safety according to contamination limit values and sanitation and epidemic safety;
- d/ Regulations on contamination concentration limits according to limit values for heavy metals in sludge (chromium, arsenic, nickel, zinc, copper, mercury, cadmium, alkali) and organic pollutants;
- dd/ Regulations on sanitation and epidemic safety according to limit values for bacteria in the process of using sludge;
- e/ Regulations on sampling, examination and monitoring.

6. Criteria for selection of locations for using treated sludge:

- a/ Topographic criteria: Convenient topographic conditions, limited use of sludge in high slope and eroded areas with adoption of appropriate anti-erosion measures and avoidance of recontamination in adjacent areas when it rains;

b/ Land criteria: Soil suitable for use of sludge such as clay, soil with poor or moderate absorption, neutral or alkaline soil, well-drained soil;

c/ Criteria related ground water level: data on seasonal ground water levels to avoid sludge use that pollutes ground water;

d/ Ensuring environmentally safe distance from civil projects, housing and daily life water collection and supply facilities under current technical regulations.

7. Responsibilities of water drainage units in the management of sludge from water drainage systems:

a/ To collect, transport and treat sludge from water drainage systems under their management;

b/ To prepare dossiers of management of sludge from water drainage systems. The basic contents of a dossier include:

A diagram of the water drainage system and locations of key works;

A sludge dredging and collection plan;

A schedule of periodic sludge dredging and collection;

The volume of dredged, collected, transported and treated sludge on each culvert, canal and key work in each period;

Expenses for sludge collection, transportation and treatment.

c/ To make plans and organize the collection, transportation and treatment of sludge under regulations and according to management and operation contracts signed with owners of water drainage systems;

d/ To survey and assess the demand for and capability of using treated sludge, make a plan on the use of treated sludge and submit it to owners for approval;

dd/ To collaborate with relevant units in organizing the implementation of the approved plan.

8. Responsibilities of owners of water drainage systems in sludge management:

a/ To direct, manage and supervise the collection, transportation, treatment and re-use of sludge;

b/ To appraise and approve treated sludge use plans (expansion and use of treated sludge) suitable to specific local conditions;

c/ To direct review and assessment of environmental impacts of the use of treated sludge;

d/ To direct review of standards for using treated sludge for submission to competent authorities for appropriate supplementation and adjustment;

dd/ To propose or establish specific mechanisms and policies supporting construction investment in sludge treatment facilities and technologies and submit them to competent authorities for promulgation or promulgate them according to their competence.

Article 3. Management of septic tank sludge

1. Requirements on collection and transportation of septic tank sludge

Vehicles and equipment for pumping, collection and transportation of septic tank sludge must be special-use vehicles permitted to operate under the laws on traffic and environmental protection.

2. Responsibilities of septic tank sludge collection and transportation service providers:

a/ To prepare customer management dossiers each comprising:

Name of the household owner/unit/number of people;

Address;

A service provision contract;

Size and capacity of a septic tank;

The schedule of periodic sludge pumping;

Other information if necessary.

b/ Septic tank sludge shall be transported to the planned centralized treatment area or the location approved by competent agencies; the treatment of septic tank sludge in centralized wastewater treatment plants based on their treatment capacity, environmental conditions and rational expenses for treatment is encouraged;

c/ Expenses for pumping, transportation and treatment of septic tank sludge shall be incurred by household owners, administrative agencies and production, business and service establishments under contracts with service providers.

d/ To make work diaries, dossiers of management of septic tank sludge collection and transportation and periodically report to local state management agencies, take responsibility for incidents as they occur such as dispersion or leak of septic tank sludge that pollutes the environment. A dossier of management of septic tank sludge collection and transportation must comprise the following basic contents:

General information on collection and transportation service providers;

Number of vehicles implementing pumping services per day/month/quarter;

Volume of pumped, collected and transported septic tank sludge;

Types of pumped and collected septic tanks (from public toilets, households, agencies), reasons for pumping (clogged or destroyed for building new works, moving to other locations);

Locations for pouring sludge (treatment stations, open land areas and planned areas);

Transportation expenses, collection charges;

Other information if necessary.

dd/ Septic tank sludge shall be transported by special-use vehicles which must ensure the following technical safety requirements:

Ensuring mechanical and chemical durability during operation;

Neither leaking nor dispersing sludge or odor to the environment;

Having measures to handle incidents during operation.

3. Responsibilities of septic tank sludge treatment units:

a/ To receive and safely treat septic tank sludge from owners of sludge sources and septic tank sludge collection and transportation service providers based on the signed contracts;

b/ To keep a dossier of periodic supervision of the received volume of septic tank sludge for treatment. Such dossier must comprise:

Basic information about the septic tank sludge treatment unit;

Volume/capacity/number of vehicles carrying the received sludge;
Quantity of used biological/chemical finished products (if any);
A diary monitoring the operation mechanism of treatment technology lines (including handling of incidents);

Volume of post-treatment solids.

c/ The treatment of septic tank sludge must comply with environmental regulations; exhaust gas, wastewater, mud, ash and cinder shall be analyzed and observed to serve assessment and supervision work to ensure the treatment satisfying the prescribed standards.

Article 4. Management and use of treated wastewater

1. The management and use of treated wastewater shall be directed toward economical and safe use of water resources and assurance of community health and environmental sanitation.

2. Treated wastewater shall be mainly used in agricultural irrigation; watering plants, washing roads and vehicles; re-used in industries; in adding water to reservoirs serving entertainment landscapes; in circulation or other purposes. The quality of treated wastewater for re-use must conform with national technical regulations on quality of water used for corresponding purposes and with current regulations.

3. Responsibilities of owners of water drainage facilities:

a/ To direct and make plans and schemes and use treated wastewater or use in circulation;

b/ To direct the review and assessment of environmental impacts of the use of treated wastewater; to summarize, assess and draw lessons for implementation;

c/ To organize supervision, observation and periodic examination to analyze the treated wastewater quality under regulations.

4. Pursuant to current regulations, provincial-level People's Committees shall develop incentive and support mechanisms and policies on use of treated wastewater in their localities in line with local conditions; and organize inspection and examination of the management of the use of treated wastewater under their competence.

Article 5. Management and operation contract and water drainage service contract

The model management and operation contract and water drainage service contract are included in Appendices 1 and 2 to this Circular (*not translated*).

Article 6. Implementation provisions

1. This Circular takes effect on May 19, 2015, and replaces the Ministry of Construction's Circular No. 09/2009/TT-BXD of May 21, 2009, detailing the implementation of a number of contents of the Government's Decree No. 88/2007/ND-CP of May 28, 2007, on water drainage in urban areas and industrial parks.

2. Any difficulties arising in the course of implementation of this Circular should be promptly reported to the Ministry of Construction for amendment and supplementation.-

For the Minister of Construction
Deputy Minister
CAO LAI QUANG