



MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT  
VIETNAM ENVIRONMENT ADMINISTRATION

**THEMATIC REPORTS**  
**National technical regulation on domestic  
wastewater and regulations on wastewater  
monitoring in Vietnam**

VIETNAM ENVIRONMENT ADMINISTRATION

**Hanoi, 09/2019**

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**1. Introduction of QCVN 14: 2008/BTNMT  
- National technical regulation on  
domestic wastewater**

# QCVN 14:2008/BTNMT

▶ QCVN 14:2008/BTNMT was written by the Compilation Board of national technical regulations on water quality, submitted by the General Department of Environment and Legal Department for approval and issued under the Decision No. 16/2008/QĐ-BTNMT dated December 31<sup>st</sup>, 2008 of the Minister of Natural resources and Environment.

## ▶ SCOPE OF ADJUSTMENT:

▶ + This regulation specifies the permissible maximum value of the pollution parameters in the effluent of textile industry as being discharged into the environment.

▶ + Do not apply this Regulation for domestic wastewater discharged into the concentrated wastewater treatment system.

# QCVN 14:2008/BTNMT

- ▶ Table 1: Value of pollution parameters as a basis for calculating the permissible maximum value in domestic wastewater.

No.	Parameter	Unit	C value	
			A	B
1	pH	-	5 - 9	5 - 9
2	BOD <sub>5</sub> (20 <sup>0</sup> C)	mg/l	30	50
3	Total suspended solids (TSS)	mg/l	50	100
4	Total dissolved solids	mg/l	500	1000
5	Sulfide (as H <sub>2</sub> S)	mg/l	1.0	4.0
6	Ammonium (as N)	mg/l	5	10
7	Nitrate (NO <sub>3</sub> <sup>-</sup> ) (as N)	mg/l	30	50
8	Animal fat and vegetable grease	mg/l	10	20
9	Total surface-active substances	mg/l	5	10
10	Phosphat (PO <sub>4</sub> <sup>3-</sup> ) (as P)	mg/l	6	10
11	Total coliforms	MPN/	3.000	5.000

# QCVN 14:2008/BTNMT

## IN WHICH:

- ▶ Column A specifies value of pollution parameters as a basis for calculating the permissible maximum value in domestic wastewater as being discharged into water resources used for the purpose of domestic water supply (with water quality equivalent to that in column A1 and A2 of the national technical Regulation on surface water quality).
- ▶ Column B specifies C value of pollution parameters as a basis for calculating the permissible maximum value in domestic wastewater as being discharged into water resources not used for the purpose of domestic water supply (with water quality equivalent to that in column B1 and B2 of the national technical Regulation on surface water or coastal water quality).

# QCVN 14:2008/BTNMT

- Table 2: Value of K coefficient corresponding to type of service facilities, public facilities, apartment buildings.

Type of facilities	Size and area of use of facilities	Value of K coefficient
1. Hotel, rest house	From 50 rooms or hotel rated 3 stars or higher	1
	Less than 50 rooms	1,2
2. Agencies, offices, schools, research institutions	Greater than or equal to 10.000m <sup>2</sup>	1,0
	Less than 10.000m <sup>2</sup>	1,2
3. Department stores, supermarkets	Greater than or equal to 5.000m <sup>2</sup>	1,0
	Less than 5.000m <sup>2</sup>	1,2
4. Markets	Greater than or equal to 1.500m <sup>2</sup>	1,0
	Less than 1.500m <sup>2</sup>	1,2
5. Restaurants, food stores	Greater than or equal to 500m <sup>2</sup>	1,0
	Less than 500m <sup>2</sup>	1,2
6. Production facilities, armed force barracks	From 500 people or more	1,0
	Less than 500 people	1,2
7. Condominiums,	From 50 apartments or more	1,0

# QCVN 14:2008/BTNMT

► The method for determination of pollution parameters in domestic wastewater shall comply with guidance of national standards or corresponding analytical standards of international organizations:

- TCVN 6492-1999 (ISO 10523-1994) - Water quality - Determination of pH.
- TCVN 6001-1995 (ISO 5815-1989) - Water quality - Determination of biochemical oxygen demand after 5 days (BOD 5) - Dilution and seeding method.
- TCVN 6625-2000 (ISO 11923-1997) - Water quality - Determination of suspended solid by filtration through glass fiber filter.
- TCVN 6053-1995 (ISO 9696-1992) - Water quality - Determination of total dissolved solids.
- TCVN 4567-1988 - Water quality - Determination of the original sulfide and sulfate...



## **2. Regulations on wastewater treatment in Vietnam**



# LAW ON ENVIRONMENTAL PROTECTION 2014

## ▶ Regulations on wastewater treatment law on environmental protection 2014

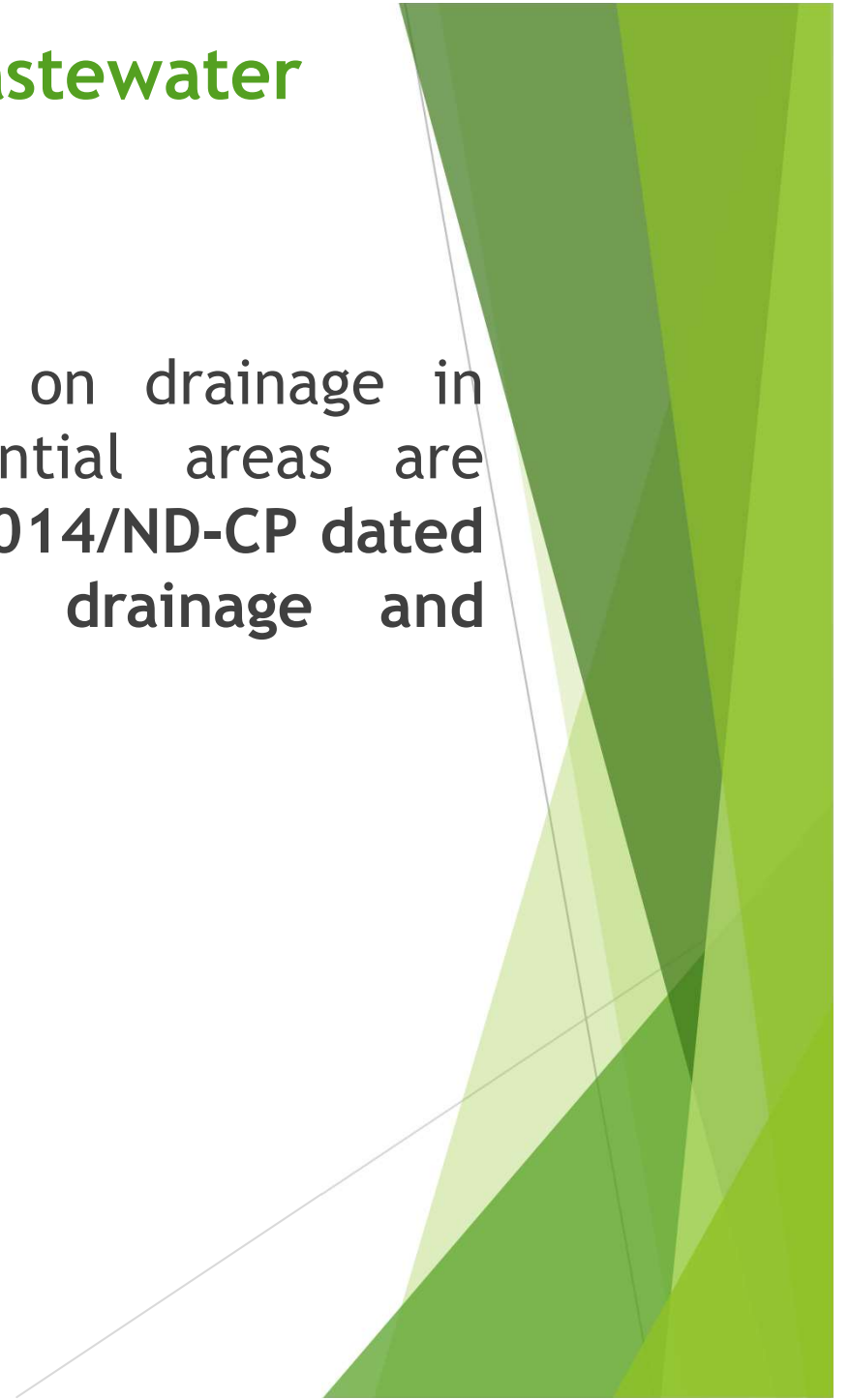
- Article 66, 67: The industrial parks, export-processing zones, and hi-tech zones must have: The concentrated wastewater collection and treatment system are conformable with environmental regulations; there is an automatic and continuous wastewater monitoring system as well as wastewater flow rate meters.
- Article 70: The People's Committees of provinces that have trade villages are obliged to: Direct the development of wastewater collection and treatment systems; gathering sites for conventional solid wastes and hazardous wastes produced by trade villages.

# LAW ON ENVIRONMENTAL PROTECTION 2014

- ▶ **Regulations on wastewater treatment law on environmental protection 2014**
  - **Article 80:** Clause 6 - “Scattered residential areas must have places and system for collecting and treating wastes, clean water supply systems, and activities to develop a green, clean, and safe environment”.
  - **Article 100:** Every urban area and concentrated residential area must have a system for separating rainwater and wastewater.

# Regulations on municipal wastewater treatment

- ▶ In addition, the regulations on drainage in urban areas and rural residential areas are specified in the **Decree No. 80/2014/ND-CP** dated **August 06th, 2014**, on the drainage and treatment of wastewater.



### **3. Regulations on monitoring for wastewater treatment facilities**

## Regulations on automatic monitoring of wastewater



According to Clause 20, Article 2 of Decree 40/2019/ND-CP, the following subjects must perform automatic wastewater monitoring:

- a) Industrial parks and facilities in industrial parks which are exempt from connection to the concentrated wastewater treatment system;
- b) Business entities of a kind of manufacturing possibly causing environmental pollution prescribed in Appendix IIa Section I issued herewith and having volume of discharge 500m<sup>3</sup>/day (24 hours) or higher according to the design capacity of the wastewater treatment system;
- c) Hazardous waste treatment facilities, centralized solid waste treatment facilities at provincial scale and facilities which use imported scrap as production materials and discharge industrial wastewater or leachate to environment, and subject to preparation of EIA reports;
- d) Business entities not specified in Points a, b and Point c of this Clause and having volume of discharges of 1,000m<sup>3</sup>/day (24 hours) or higher according to the design capacity of the wastewater treatment system;
- e) Facilities which carried administrative penalties for discharging wastewater exceeding technical regulations on environment but still repeat that offense or committed such offense multiple times before facing the penalties;
- f) Other entities decided by the People's Committee of province.

## Regulations on regular monitoring of wastewater

According to Clause 20, Article 2 of Decree 40/2019/ND-CP the following subjects must perform and frequency of regular wastewater monitoring:

- ▶ Ongoing facilities, industrial parks and projects having scale and capacity equivalent to the projects/plans subject to EIA report and total volume of wastewater discharged to environment (according to the total design capacity of wastewater treatment systems or the volume of wastewater approved in the EIA report and equivalent documents) is 20m<sup>3</sup>/day (24 hours) or higher, excluding connecting points to concentrated wastewater treatment system of the industrial park shall perform regular wastewater monitoring every 3 months
- ▶ Ongoing facilities, industrial parks and projects having scale and capacity equivalent to the projects/plans subject to registration of environment protection plan and total volume of wastewater discharged to environment (according to the total design capacity of wastewater treatment systems or the volume of wastewater registered in the environmental protection plan) is 20m<sup>3</sup>/day (24 hours) or higher, excluding connecting points to concentrated wastewater treatment system of the industrial park shall perform regular wastewater monitoring every 6 months



4. Some orientations for building documents in the near future



A number of documents are being built and the revised plan.

- ▶ Develop a circular guiding Decree 40/2019/ND-CP
- ▶ Develop the Law to amend the content of the Law on Environmental Protection 2014
- ▶ Develop and issue a comprehensive system of national technical regulations on environment

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**SINCERELY THANK YOU!**