

ICS 13.020.01

CCS Z 06



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39793.2-2020

**Technical Guide for Eco-environmental Damage Appraisal and
Assessment Basic Method - Part 2: Virtual Treatment Cost
Method of Water Pollution**

Issued on: December 29, 2020

Implemented on: January 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope of application

2 Normative references

3 Terms and definitions

4 Working procedures

5 Evaluation method

5.1 Basic method

5.2 Quantity of emissions

5.3 Unit governance cost

Foreword

To implement the Civil Code of the People's Republic of China, the Environmental Protection Law of the People's Republic of China, and the Water Pollution Prevention and Control Law of the People's Republic of China

And the "Eco-environmental Damage Compensation System Reform Program" to protect the surface water ecological environment, protect public health, and regulate the ecological environment involving surface water

This standard is formulated for the identification and assessment of environmental damage.

This standard specifies the applicable conditions, working procedures and evaluation methods of the virtual treatment cost method for surface water pollution.

This standard is issued for the first time.

This standard is organized and formulated by the Ministry of Ecology and Environment.

The main drafting unit of this standard. Environmental Planning Institute of the Ministry of Ecology and Environment.

This standard will be implemented on January 1, 2021. For the identification and assessment of ecological environmental damage that occurred before the implementation of this standard, continue to refer to the

"Explanation on the Application Situation and Calculation Method of Virtual Governance Cost Method" (Huanban Zhengfahan [2017] No. 1488), but the damage continued to

Except those implemented by this standard.

This standard is interpreted by the Ministry of Ecology and Environment.

Basic method of ecological environment damage assessment technical guide

Part 2.Virtual Control Cost Method of Water Pollution

1 Scope of application

This standard specifies the applicable conditions, working procedures and evaluation methods of the virtual treatment cost method for surface water pollution.

This standard applies to illegal discharge or dumping of waste water or solid waste (including hazardous waste) and other discharge activities. The facts are clear, but the facts are harmed.

Circumstances in which the scope, extent, and amount of damage to the ecological environment of surface water are not clear or cannot be determined at a reasonable cost. This standard does not apply to sudden

In the event of an environmental incident, the actual emergency treatment costs or governance costs are clear, and the ecological environment damage can be determined through investigation and evaluation.

Identification and evaluation.

2 Normative references

This standard quotes the following documents or their clauses. For dated reference documents, only the dated version applies to this standard.

For undated references, the latest version (including all amendments) applies to this standard.

GB 30000.18 Rules for Classification and Labeling of Chemicals Part 18.Acute Toxicity

GB 30000.28 Specification for Classification and Labeling of Chemicals Part 28.Hazards to the Aquatic Environment

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1

Unit abatement cost

Refers to the costs incurred by industrial production enterprises or professional pollution control enterprises for the treatment of unit volume or quality of wastewater or solid waste.

Including energy consumption, equipment maintenance, personnel wages, management fees, pharmaceutical fees and other processing facility operating costs, fixed asset depreciation costs and governance

The waste disposal and other related expenses generated during the process do not include the benefits generated by the comprehensive utilization of solid waste.

3.2

Discharge amount

Refers to the amount of pollutants discharged in excess of the standard or the total amount of pollutants discharged by the pollutant discharge unit or the amount of waste water discharged into the environment outside the legal boundary or the solid waste dumped

Volume. For water pollutants without discharge standards, it refers to the total amount of pollutants discharged.

3.3

Adjustment coefficient

The coefficient is used to adjust the gap between the cost of surface water pollution treatment and the value of damage caused by environmental pollution.

The adverse effects of body waste on the water environment and the sensitivity of different functional water bodies, the value and the hazard of pollutants, and the surface water environment

Functionally related.

4 Working procedures

The working procedure of the virtual treatment cost method for surface water pollution is shown in Figure 1. The specific steps include.

a) Analysis of method suitability. Identify the discharge or dumping of wastewater or solid waste through on-site survey, data verification, file review, etc.

Facts, master the source or industry of wastewater or solid waste, characteristic pollutants, discharge rules, discharge destination, discharge place

Analysis of the applicability of virtual governance cost method based on points, discharge quantity, discharge concentration and environmental function of discharge into water bodies.

b) Determine the emission quantity. According to site survey, inquiry transcripts, production records and other materials, determine the amount of pollutants discharged or waste water, The mass or volume of solid waste discharged or dumped, and the content of characteristic

pollutants in the wastewater is measured according to needs.

c) Determine the unit governance cost. Use actual survey method, cost function method and other methods to determine the characteristic pollutants in wastewater or wastewater or

The unit treatment cost of solid waste.

d) Determine the adjustment factor. Determine the adjustment coefficient according to the hazard category of wastewater or solid waste and the current environmental function of the receiving water body,

Including hazard coefficient, excess coefficient and environmental function coefficient.

e) Calculate the amount of surface water ecological environmental damage. According to emissions, unit governance costs, adjustment factors, etc., adopt virtual governance costs

Method calculation formula to calculate the amount of surface water ecological environmental damage.

5.1 Basic method

On the basis of the cost required for the treatment of wastewater or solid waste to meet relevant standards based on the current technical methods, while considering wastewater or solid waste

The damage amount is calculated based on factors such as the hazard and concentration of the substances or pollutants in the waste and the environmental function of the surface water, see formula (1) and

Formula (2).

5.2 Quantity of emissions

If waste water is discharged in excess of the standard at the sewage outlet approved by the ecological environment management department and enters the surface water body, the discharge amount is the waste water discharged in excess of the standard

Or the total amount of characteristic pollutants. For other secretly discharged or dumped wastewater, the discharge amount shall be the total amount of discharged wastewater or characteristic pollutants. Discharge to surface water

Where solid waste is discharged or dumped, the discharge amount shall be the total amount of solid waste discharged and dumped.

The calculation methods of the emission quantity include the actual measurement method, the material balance algorithm and the pollution discharge coefficient calculation method. For dumping of waste or waste liquid, violation of laws and regulations