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

HJ 882-2017

**Self-monitoring technology guidelines for pollution sources.
Pharmaceutical industry fermentation products category**

排污单位自行监测技术指南 发酵类制药工业

(English Translation)

Issued on: December 21, 2017

Implemented on: January 1, 2018

Issued by: Ministry of Ecology and Environment

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Foreword

To implement the "Law of the People's Republic of China on Environmental Protection," "Water Pollution Prevention and Control Law of the People's Republic of China" Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution "and guide and standardize the self-monitoring of the pollutant discharge units in the fermenting pharmaceutical industry to formulate this standard.

This standard puts forward the general requirements for the self-monitoring of the fermentative pharmaceutical industry's sewage disposal units, the development of monitoring plans and the information record and the basic content and requirements of the report.

This standard is released for the first time.

This standard by the Environmental Protection Department of Environmental Monitoring Division, Science and Technology Standards Division proposed and organized.

1 Scope of application

This standard puts forward the general requirements for the self-monitoring of the fermentative pharmaceutical industry's sewage disposal units, the development of monitoring plans and the information record and the basic content and requirements of the report.

This standard applies to fermentative pharmaceutical industry sewage units in the production and operation stage of its water, air pollutants, noise as well as its impact on the surrounding environment quality monitoring.

This standard also applies to the structure of fermented drugs similar veterinary drug

production sewage units.

Self-owned thermal power generating units (plants), self-supporting boiler requirements in accordance with the HJ 820 implementation.

2 Normative references

This standard references the following documents or the terms of them. For dated references, the effective version is valid Used for this standard.

GB 14554 Odor pollutant emission standards GB 16297 Integrated Air Pollutants Emission Standard GB 21903 fermentation pharmaceutical industry water pollutant emission standards HJ/T 2.3 Environmental Impact Assessment Technical Guidelines Surface water environment HJ/T 91 Technical Specifications for Surface Water and Sewerage Monitoring HJ/T 166 Soil Environmental Monitoring Technical Specifications HJ 442 Marine environment monitoring code HJ 819 Technical Guidelines for Self-Monitoring of Sewage Disposal Units General HJ 820 Self-Monitoring Technical Guidelines for Sewage Disposal Units Thermal Power Generation and Boilers "National List of Hazardous Wastes" (Ministry of Environmental Protection, National Development and Reform Commission, Ministry of Public Security Order No. 39)

3 Terms and definitions

GB 21903 defined and the following terms and definitions apply to this standard.

Fermentation

Refers to the use of microorganisms in the aerobic or anaerobic conditions of life activities to prepare microbial cells themselves, or directly metabolized or secondary metabolite process.

Fermentation pharmaceutical Refers to the method of fermentation to produce antibiotics or other active ingredients, and then after separation, purification, and other processes the process of producing drugs. Divided by product categories antibiotics, vitamins, amino acids and other categories.

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Direct discharge

Refers to the discharge of water pollutants directly to the environmental water body behavior.

Indirect discharge

Refers to the sewage discharge unit to the public sewage treatment system discharge of water pollutants behavior.

Volatile organic compounds (VOCs) Refers to the atmospheric photochemical reactions of organic compounds, or according to the prescribed method of measurement or accounting to determine the organic compound Things.

4 Self-monitoring of the general requirements

Sewage units should check their own sources of pollution, pollutants and potential environmental impact indicators, the development of monitoring programs, set and maintain the monitoring facilities, carry out self-monitoring according to the monitoring plan, conduct quality assurance and quality control, record and save the monitoring Data and information, in accordance with the law to the public monitoring results.

5.1.1 Monitoring point

All fermenting pharmaceutical industry sewage units must be in the total discharge of waste water, rainwater discharge port set monitoring points, domestic sewage Water alone into the external environment must be set in the sewage outlet monitoring points.

5.1.2 Monitoring Indicators and Monitoring Frequency

Wastewater discharge monitoring sites, monitoring indicators and the minimum monitoring frequency in accordance with Table 1 implementation.

Table 1 Wastewater discharge monitoring points, monitoring indicators and minimum monitoring frequency

Monitoring point	Monitoring indicators	Monitoring frequency	Direct emissions	indirect emissions
Wastewater Total discharge	Flow, pH, COD, ammonia nitrogen	automatic monitoring		
Total Phosphorus		Day (Automatic Monitoring a)		Month (Automatic Monitoring a)
Total Nitrogen		Day b (Day b)		
Total suspended solids, color, total organic carbon, BOD5, total Cyanide, total zinc, acute toxicity (HgCl ₂ toxicity equivalent)		Rose quarter		domestic
sewage exhaustion hole	Flow, pH, COD, ammonia nitrogen	automatic monitoring		
-Total phosphorus		month (automatic monitoring a)		
-Total Nitrogen		Month (Day b)		
-Suspended solids, on the 5th biochemical oxygen demand, animal and vegetable oil		month		
-Monitoring point				
monitoring indicators				
Monitoring frequency				
Direct emissions				
indirect emissions				
Rainfall discharge	pH, COD, ammonia nitrogen, suspended solids	Day c		
Note.				

The monitoring indicators listed in the table, the municipal district and above designated environmental authorities clearly require the installation of automatic monitoring equipment, to be taken automatically.

Note: a total water quality control of total phosphorus in the implementation of the region, the total phosphorus to take automatic monitoring.

b Total nitrogen in water environment quality Total control area, total nitrogen The current minimum monitoring frequency is executed on a daily basis, pending the release of the

automatic monitoring technical specifications After the automatic monitoring must be taken.

c Monitor emissions by day.

5.2.1.1 Monitoring points

Exhaust gas from each process is discharged to the external environment through an exhaust pipe, etc., and an exhaust gas flue in front of the exhaust pipe or exhaust pipe is to be provided Measuring point.

5.2.1.2 Monitoring indicators and monitoring frequency

Organized exhaust monitoring points in each process, monitoring indicators and the minimum monitoring frequency in accordance with Table 2 implementation. For multiple sources of pollution or production equipment share an exhaust pipe, monitoring points can be arranged in a common exhaust pipe, monitoring indicators should cover the corresponding Pollution or production equipment monitoring indicators, the minimum monitoring frequency in accordance with the strict implementation.

Table 2 Organized emission monitoring sites, monitoring indicators and minimum monitoring frequency

Monitoring points for the type of exhaust gas to be monitored at the production process
 monitor frequency
 Ingredients and feeding Organic liquid ingredients and other equipment
 row Gas cylinder Process organic waste gas Volatile Organic matter a month
 Characteristics of pollutants b years
 Acid and alkali equipment such as exhaust pipe
 technology acid-base exhaust characteristics of pollutants b years
 Solid batching machine, whole grain screening Machine, crusher and other equipment exhaust
 Process dust particles exhaust quarter
 Fermentation Seed cans, fermentors, disinfection Cans, ingredients and additional equipment such as cans
 Exhaust tube Fermented waste gas Particulates, volatile organic compounds a month
 Odor concentration year
 Extraction, refining Acidification tank, adsorption tower, liquid storage Cans, dryers, decolorization
 cans, Crystallization tank and other equipment exhaust
 Process organic waste gas Volatile Organic matter a month
 Characteristics of pollutants b years
 dry Drying tower, vacuum dryer, Vacuum pump, bacteria residue dryer
 Exhaust tube Process organic waste gas Volatile Organic matter a month
 Characteristics of pollutants b years
 Process dust particles exhaust quarter
 Finished product Grinding, machinery, points Equipment, packaging machinery and other equipment
 row Process dust particles exhaust quarter
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 monitor frequency
 Gas cylinder other Solvent Recovery Equipment Exhaust Bar Process Organic Waste Gas
 Volatile Organic matter a month
 Characteristics of pollutants b years
 Sewage treatment plant or treatment facility Exhaust tube Volatile Organic matter a month
 Odor concentration, characteristic pollutants b years
 Tank exhaust gas exhaust -Volatile organic matter a quarter
 Characteristics of pollutants b years
 Dangerous waste temporary