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

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

排污单位自行监测技术指南 化学合成类制药工业

(English Translation)

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Table of Contents

Foreword

1 Scope of application .1

2 Normative references .1

3 Terms and definitions

4 Self-monitoring of the general requirements .2

5 Monitoring program development .2

6 Information Recording and Reporting .7

7 Other

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" "People's Republic of China Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution "to guide and standardize the self-monitoring of the chemical industry's sewage disposal units and formulate this standard.

This standard puts forward the general requirements for the self-monitoring of the chemical industry-based chemical industry sewage treatment units, the development of monitoring plans, the information Record and report the basic content and requirements.

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 chemical industry-based chemical industry sewage treatment units, the development of monitoring plans, the information Record and report the basic content and requirements.

This standard applies to the chemical synthesis of the pharmaceutical industry sewage units in the production and operation of its discharge of water and air pollutants, Noise and its impact on the surrounding environment quality monitoring.

This standard also applies to pharmaceutical intermediates for the production of pharmaceutical factories, and chemical synthesis of drugs similar to the structure of veterinary students Production enterprises and other sewage units.

Own-owned thermal power plant (plant), self-supporting boiler requirements in accordance with the implementation of HJ 820.

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 21904 chemical synthesis 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 164 Groundwater Environmental Monitoring Technical Specifications HJ/T 166 Soil Environmental Monitoring Technical Specifications HJ 442 Marine environment monitoring code HJ 610 Environmental Impact Assessment Technical Guidelines Groundwater Environment 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 21904 defined and the following terms and definitions apply to this standard.

Chemical synthesis pharmacy Refers to the use of a chemical reaction or a series of chemical reaction process of producing pharmaceutical active ingredients.

HJ --- -201 -

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.

Reaction

Refers to through the use of synthetic reactions, drug structure modification, deprotection and a series of final preparation of pharmaceutical active ingredients or Process with a mixture of pharmaceutically active ingredients.

Separation and purification Refers to the use of physical, chemical or other methods to a

drug active ingredients or intermediate products of the reaction process (such as pharmaceutical intermediates) from the reaction mixture was isolated, if necessary, to further remove impurities to obtain the pure process, including separation, mention Take, refined, dry and other stages.

Solvent recovery equipment Refers to the chemical synthesis pharmaceutical industry in the production process of solvent collection, purification in order to achieve the purpose of re-use of the device.

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 chemical synthesis pharmaceutical industry sewage units shall be in the total discharge of waste water, rainwater discharge port set monitoring points, row the total amount of mercury, total cadmium, hexavalent chromium, total arsenic, total lead, total nickel, alkyl mercury should be in the workshop or production facilities waste discharge port Set monitoring points, domestic sewage into the external environment alone must also set the monitoring point in the sewage outlet.

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	Remarks
Direct emissions			
indirect emissions	Wastewater total row	Let go	Flow, pH, COD, Ammonia nitrogen
Automatic monitoring	-Total phosphorus	month (automatic monitoring a)	-Total Nitrogen
	Month (Day b)	-Suspended solids, color, five days of biochemical oxygen demand, Acute toxicity (HgCl ₂ toxicity equivalent), Total organic carbon	Moon Quarter
	-Total cyanide, volatile phenol, total copper, total zinc, Nitrobenzenes, anilines, methylene chloride	Rose quarter	
	According to the production and use of raw and auxiliary Materials, products,		

by-products Identify specific monitoring indicators Sulfide quarter six months According to the production and use of raw and auxiliary Materials, products, by-products Determine whether to conduct monitoring Workshop or students Waste of production facilities Water drain Total mercury, total cadmium, hexavalent chromium, Total arsenic, total lead, total nickel According to the production and use of raw and auxiliary Materials, products, by-products to determine the specific monitoring of the money is an indicator Alkyl mercury years -domestic sewage exhaustion hole Flow, pH, COD, Ammonia nitrogen Automatic monitoring - -Total phosphorus month (automatic monitoring a) - -Total Nitrogen Month (Day b) - -Suspended solids, biochemical oxygen demand on the 5th, Animal and vegetable oils Month - -rainwater exhaustion hole pH, COD, ammonia nitrogen, suspension 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 control Total control area of nitrogen, the minimum daily monitoring frequency of nitrogen is executed on a daily basis. After the automatic monitoring technical specifications are released, Must take automatic monitoring.

c Monitor emissions by day.

HJ --- -201 -

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 Monitoring indicators of pollution sources or production equipment, the minimum monitoring frequency in strict accordance with the implementation.

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

Monitoring points of production process monitoring points Type of monitoring indicators Monitoring frequency Ingredients and Feeding Organic liquid ingredients machinery and other equipment, facilities row Gas cylinder Process organic waste gas Volatile Organic