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

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**Self-monitoring technology guidelines for pollution sources -
Petroleum chemistry industry
(English Translation)**

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Foreword

To implement the "Environmental Protection Law of the People's Republic of China", "Water Pollution Prevention and Control Law of the People's Republic of China" the National Air Pollution Prevention and Control Law, which guides and regulates the self-monitoring work of the petrochemical industry pollutant discharge units, and formulates this standard.

This standard proposes the sewage chemical unit and the synthetic resin industry (excluding the PVC resin production equipment).

General requirements for monitoring, program development, information recording and reporting basic content and requirements.

This standard is the first release.

This standard was proposed and organized by the Ministry of Ecology and Environment.

This standard is mainly drafted by. China National Environmental Monitoring Center, China National Petroleum Corporation Safety and Environmental Technology Research Institute, China Stone Oil Chemical Co., Ltd. Fushun Petrochemical Research Institute, China National Petroleum Corporation Lanzhou Petrochemical Company Ring Environmental Monitoring Station, Beijing Feiyan Petrochemical Environmental Technology Development Co., Ltd.

This standard is approved by the Ministry of Ecology and Environment on July 31, 2018.

This standard has been implemented since October 1, 2018.

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

Sewage unit self-monitoring technical guide petrochemical industry

1 Scope of application

This standard proposes the general requirements for the self-monitoring of the petrochemical industry's pollutant discharge units, the development of monitoring plans, information records and the basic content and requirements of the report.

This standard applies to the petrochemical industry and the synthetic resin industry (excluding PVC resin production equipment).

The production and operation phase monitors the water, gas pollutants, noise and the impact on the surrounding environment.

Self-monitoring requirements for self-contained thermal power generating units (plants) and supporting power boilers of sewage disposal units shall be implemented in accordance with HJ 820.

2 Normative references

The contents of this standard refer to the following documents or their terms. For undated references, the valid version is appropriate.

Used in this standard.

GB 14554 Odor Pollutant Discharge Standard GB 18484 Hazardous Waste Incineration Pollution Control Standard GB 31571 Petroleum chemical industry pollutant discharge standards GB 31572 synthetic resin industrial pollutant discharge standard HJ/T 55 Technical Guidelines for the Monitoring of Unorganized Emissions of Air Pollutants HJ/T 91 Surface Water and Wastewater Monitoring Technical Specifications HJ/T 164 Technical Specifications for Groundwater Environmental Monitoring HJ/T 166 Technical Specifications for Soil Environmental Monitoring HJ/T 194 Technical Specifications for Manual Air Quality Monitoring HJ 442 Code for Environmental Monitoring of Coastal Waters HJ 664 Technical Specifications for Environmental Air Quality Monitoring Points (Trial) HJ 733 Guidelines for the detection of volatile organic compounds in leaking and open level discharges HJ 819 General Guidelines for Self-Monitoring Technical Units of Sewage Units HJ 820 sewage unit self-monitoring technical guide thermal power generation and boiler National Directory of Hazardous Wastes (Ministry of Environmental Protection, National Development and Reform Commission, Ministry of Public Security Order No. 39)

3 Terms and definitions

The following terms and definitions defined in GB 31571, GB 31572, HJ 819 apply to this standard.

Petrochemical industry chemistry industry Using petroleum fractions, natural gas, etc. as

raw materials to produce organic chemicals (see GB 31571 Appendix A), synthetic resins, Industries such as synthetic fibers and synthetic rubber.

Synthetic resin industry Production of synthetic resin by low-molecular compound-monomer as main raw material and polymerization into macromolecules the industry, or the industry that uses ordinary synthetic resins as raw materials, and uses new methods such as modification to produce new synthetic resin products. Also package Including synthetic resin as raw material, using mixing, blending, modification and other processes, through extrusion, injection, pressing, calendering, foaming Production of synthetic resin products by other methods, or production of new synthesis by recycling of waste synthetic resin Industry of resin or synthetic resin products.

Organic characteristic wastewater pollutants Organic pollutants in wastewater listed in Appendix A. Petrochemical industry enterprises use or generate more than the production process Raw materials, products, by-products and intermediate products equal to 10 tons/year, according to Appendix A, determine the control of wastewater discharged from enterprises.

Organic characteristic pollutants in wastewater.

Organic characteristic air pollutants Organic pollutants in the exhaust gases listed in Appendix B. Petrochemical industry enterprises use or generate more than the production process Raw materials, products, by-products and intermediate products equal to 10 tons/year, and the wastes to be controlled in the exhaust gas of enterprises shall be determined in accordance with Appendix B.

Gas organic characteristic pollutants.

Volatile organic compounds Refers to an organic compound that participates in atmospheric photochemical reactions, or measures or accounts for established organic compounds according to specified methods.

Object. This standard uses non-methane total hydrocarbons as a comprehensive control indicator for exhaust gas cylinders and emissions of volatile organic compounds at the enterprise boundary.

4 General requirements for self-monitoring

The pollutant discharge unit shall check the pollution source, pollutant index and potential environmental impact of the unit, formulate a monitoring plan, and set up and maintenance monitoring facilities, carry out self-monitoring according to the monitoring plan, do quality assurance and quality control, record and save monitoring Data, publicly monitor the results to the public according to law.

5.1.1 Monitoring points

The sewage disposal unit shall set up monitoring points at the total discharge port of the wastewater, the wastewater discharge port of the workshop or production facility, and the rainwater discharge port.

5.1.2 Monitoring indicators and frequency

The discharge unit of GB 31571 shall perform the corresponding monitoring requirements of the types of petrochemical industry enterprises in Table 1.

Use raw materials, production processes, products and by-products, and screen the organic pollutants of wastewater from Appendix A.

Conduct self-monitoring.

To implement the sewage disposal unit of GB 31572, the corresponding monitoring requirements of the synthetic resin industrial enterprise type in Table 1 shall be implemented.

Record the synthetic resin listed in C, and also select other wastewater pollutant indicators from Appendix C to carry out self-monitoring according to the product type.

Measurement.

Table 1 Minimum monitoring frequency of wastewater discharge monitoring indicators

Enterprise type	Monitoring point	Monitoring index	Frequency of monitoring	Direct emission	Indirect emissions
Petrochemical industry	Waste water discharge	Chemical oxygen demand, ammonia nitrogen, automatic flow monitoring	week	pH, suspended solids, total nitrogen, total phosphorus, petroleum, sulfide, Volatile phenol	Zhou Yue 5th BOD, total organic carbon, fluoride, total vanadium, total Copper, total zinc, total cyanide, adsorbable organic halide
Workshop or production facility	Waste water discharge port a	Total lead, total cadmium, total arsenic, total nickel, total mercury, total chromium, hexavalent chromium	Month	quarter	Wastewater organic characteristic pollutants for half a year
	Rainwater discharge port b	pH, chemical oxygen demand, ammonia nitrogen, petroleum, suspended matter	day	c	Synthetic resin industry
	Waste water discharge	Chemical oxygen demand, ammonia nitrogen, automatic flow monitoring	week	pH, suspended solids, total nitrogen, total phosphorus	5-day biochemical oxygen demand, total organic carbon, and absorbing organic halides
	Other wastewater pollutants d	for half a year	Workshop or production facility	Waste water discharge	Total lead, total cadmium, total arsenic, total nickel, total mercury, total chromium, hexavalent chromium
	Alkyl mercury	half year	b	Rainwater discharge	pH, chemical oxygen demand, ammonia nitrogen, suspended solids
		day	c		

Note 1: The municipal and above environmental protection authorities in the district have clearly