

HJ

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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Self-monitoring technology guidelines for pollution sources - Onshore oil and gas exploitation and production industry

排污单位自行监测技术指南 陆上石油天然气开采工业

(English Translation)

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 General requirements for self-monitoring
- 5 Monitoring plan formulation
- 6 Information recording and reporting
- 7 Other

1 Scope of application

This standard specifies the general requirements for self-monitoring, monitoring plan formulation, information recording and the basic content and requirements of the report.

This standard is applicable to the water and gas pollutants discharged by the onshore oil and natural gas mining industrial pollutant discharge units during the production and operation stages, and the noise and and carry out self-monitoring of the impact on the surrounding environmental quality. Oil sands, oil shale, shale gas, coalbed methane, natural gas hydrate and other unconventional oil and gas development the self-monitoring of industrial sewage discharge units can be implemented by reference.

Self-monitoring requirements for self-provided thermal power generating units (factories) and supporting power boilers shall be implemented in accordance with HJ 820.

2 Normative references

This standard refers to the following documents or clauses thereof. For dated references, only the dated version applies to this standard.

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

GB 36600 Soil Environmental Quality Construction Land Soil Pollution Risk Control Standard (Trial) GB 37822 Volatile organic compound fugitive emission control standard GB 39728 Emission Standard of Air Pollutants for Onshore Oil and Gas Exploitation Industry HJ 91.2 Technical Specification for Surface Water Environmental Quality Monitoring HJ 164 Technical Specification for Groundwater Environmental Monitoring HJ/T 166 Technical Specification for Soil Environment Monitoring HJ 194 Technical Specification for Manual

Monitoring of Ambient Air Quality HJ 442.8 Technical Specifications for Environmental Monitoring in Offshore Sea Areas Part VIII Direct Sea Pollution Sources and Impact on the Water Environment in Offshore Sea Areas monitor HJ 610 Environmental Impact Assessment Technical Guidelines Groundwater Environment HJ 664 Technical Specifications for Layout of Ambient Air Quality Monitoring Points (Trial) HJ 819 General Principles of Technical Guidelines for Self-Monitoring of Pollutants HJ 820 Technical Guide for Self-Monitoring of Pollutant Emission Units Thermal Power Generation and Boiler HJ 964 Environmental Impact Assessment Technical Guidelines Soil Environment (Trial) HJ 1200 Technical Specification for Pollution Discharge Permit Application and Issuance Industrial Solid Waste (Trial) "National Hazardous Waste List"

3 Terms and Definitions

The terms and definitions defined in GB 39728 and the following apply to this standard.

onshore oil and gas exploitation and production Oil and gas extraction activities in onshore oil and gas fields, onshore and offshore oil and gas fields and onshore terminals of offshore oil and gas fields, including oil and gas exploration Exploration, drilling, completion, logging,, downhole operations, oil and gas testing, oil and gas production, oil and gas gathering and transportation, and oil and gas processing operations or processes it does not include oil sands, oil shale, shale gas, coalbed methane, natural gas hydrate and other unconventional oil and gas exploration activities.

direct discharge

The act of discharging water pollutants directly into environmental water bodies.

indirect discharge

The act of discharging water pollutants to a centralized sewage treatment facility by a sewage discharge unit.

rainwater outlet

A discharge outlet that specifically discharges natural precipitation to outside the factory boundary directly or through ditch, canal or pipeline and other facilities.

volatile organic compounds (VOCs) Organic compounds participating in atmospheric photochemical reactions, or organic compounds determined according to relevant regulations. This standard uses non-methane total hydrocarbons as a monitoring indicator of volatile organic compound emissions from exhaust stacks and enterprise boundaries.

leak detection value Using the specified monitoring method, the VOCs concentration detected by the detection instrument at the leakage point of the equipment and pipeline components is deducted from the environmental background value.

Net value, expressed as mole fraction of carbon.

steam injection boiler used in viscous oil production it is a production equipment that provides high temperature and high pressure steam for the exploitation of heavy oil and super heavy oil.

Oil and gas field heater used in petroleum industry Thermal equipment for heating medium such as crude oil, natural gas, water and their mixtures in the process of onshore oil and gas exploitation, the main types Including tubular heating furnace, water jacket heating furnace, vacuum phase change heating furnace, heat medium heating furnace, etc.

4 General requirements for self-monitoring

The pollutant discharging unit should find out the pollution source, pollutant index and potential environmental impact of the unit, formulate a monitoring plan, set up and maintain monitoring facilities, carry out self-monitoring in accordance with the monitoring plan, do a good job in quality assurance and quality control, record and save monitoring information, and disclose it to the public in accordance with the law Monitoring results.

5.1 Wastewater discharge monitoring

The wastewater discharge monitoring points, monitoring indicators and minimum monitoring frequency of sewage discharge units shall be implemented in accordance with Table 1.

5.5 Other requirements

5.5.1

In addition to the pollutant indicators in Tables 1 to 3, the pollutant indicators in 5.5.1.1 and 5.5.1.2 should also be included in the scope of monitoring indicators, and refer to Table 1~Table 3 and HJ 819 to determine the monitoring frequency.

5.5.1.1

Pollutant Discharge Permit, Implemented Pollutant Discharge (Control) Standards, Environmental Impact Assessment Documents and Their Approvals [Only in 2015 Pollutants that have obtained the approval of the environmental impact assessment after January 1, index.

5.5.1.2

The sewage discharge unit determines the actual discharge according to the raw and auxiliary materials used in the production process, the production process, the types of intermediate and final products, and the monitoring results.

released, the pollutant indicators in the list of toxic and hazardous pollutants or the priority control chemicals list, or other toxic pollutant indicators.

5.5.2

The monitoring frequency of each indicator can be increased according to the determination principle in HJ 819 on the basis of meeting this standard.

5.5.3

Key pollutant discharging units shall install and use automatic monitoring equipment according to laws and regulations. Non-key pollutant discharging units do not have mandatory requirements.

The monitoring frequency of bits and indicators shall be implemented with reference to this standard.

5.5.4

Sampling methods, monitoring analysis methods, monitoring quality assurance and quality control shall be implemented in accordance with HJ 819.

5.5.5

The description and changes of the monitoring program shall be implemented in accordance with HJ 819.

6.1.1 Monitoring information record

Manual monitoring records and automatic monitoring operation and maintenance records are implemented in accordance with HJ 819. The authenticity and accuracy of the automatic monitoring data by the sewage unit Responsible for the abnormal data transmission should be reported in a timely manner, and the implementation of the national standard specification or automatic monitoring data abnormal marking rules.

6.1.2.1 General provisions

The pollutant discharging unit shall record the operation status of production and pollution control facilities in detail, and shall refer to 6.1.2.2~6.1.2.5 to record relevant information in daily production.

and organize them into a ledger for future reference.

6.1.2.2 Production Health Record

Record the amount and composition of raw and auxiliary materials, product output, water intake, and fuel consumption of each set of equipment in each major production unit on a daily (or shift) basis volume and composition, design scale and process parameters of storage tank (temperature, liquid level, turnover), working state of flare and pilot facilities (flare gas flow, Torch flame temperature, tinder gas flow, tinder temperature, etc.), running time, etc.