

HJ

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Self-monitoring technology guidelines for pollution sources - Bulk oil terminal and oil filling station

排污单位自行监测技术指南 储油库、加油站

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1 Scope of application

This standard specifies the general requirements for self-monitoring of pollutant discharge units in oil depots and gas stations, the establishment of monitoring programs, and the basis for information recording and reporting.

content and requirements.

This standard is applicable to the oil storage depots that implement key management and simplified management of pollutant discharge permits in the "List of Fixed Pollution Source Pollutant Discharge Permit Classification Management" (including the oil storage area supporting the wharf), the water and air pollutants, noise, and pollution to the gas station discharge unit during the production and operation stage.

Carry out self-monitoring on the impact of border environmental quality. Oil storage under the management of pollutant discharge permit registration in the "List of Fixed Pollution Source Pollutant Discharge Permit Classification Management" Depots (including the oil storage area supporting the wharf) and pollutant discharge units of gas stations can carry out self-monitoring according to the provisions of this standard. storage liquid organic chemistry the pollutant discharge unit of the oil storage depot of the product can carry out self-monitoring with reference to the provisions of this standard.

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 20950 Air Pollutant Emission Standards for Oil Storage Depots GB 20952 Gas Station Air Pollutant Emission Standard GB 36600 Soil Environmental Quality Construction Land Soil Pollution Risk Control Standard (Trial) GB 37822 Volatile organic compound fugitive emission control standard 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 733 Technical Guidelines for the Detection of Volatile Organic Compounds in Leaks and Open Liquid Surface Emissions 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 1118 Technical Specifications for Application and Issuance of Pollutant Discharge Permits for Oil Storage and Gas Stations HJ 1200 Technical Specification for Pollution Discharge Permit Application and Issuance Industrial Solid Waste (Trial) "National Hazardous Waste List" "List of Fixed Pollution Source Pollutant Discharge Permit Classification Management"

3 Terms and Definitions

The terms and definitions defined in GB 20950, GB 20952 and the following apply to this standard.

Bulk oil terminal pollutant emission unit it consists of oil storage tanks and sends and receives (including storage) crude oil, refined oil and other oil products through tank cars, railway tank cars, ships or pipelines.

(except for crude oil, refined oil and other oil storage places in production enterprises).

Oil filling station pollutant emission unit it consists of oil storage tanks, fuel dispensers and oil guns, etc. It is a sewage discharge unit that adds refined oil to motor vehicles.

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.

Oil and gas vapor

The volatile organic compounds generated during the storage, delivery and reception of oil products in the oil depot and the refueling, unloading and storage of gasoline at the gas station. This standard uses non-Methane total hydrocarbons (expressed as NMHC) are used as monitoring indicators for oil and gas emissions from exhaust pipes and enterprise boundaries.

sealing point of vapor collection system in bulk oil terminal the parts where the oil and gas collection system supporting the oil storage depot and the oil-generating facility may leak Head, submerged oil sealing cover on the top of railway tank car, oil and gas recovery pipeline flange of oil tanker.

vapor recovery system closed binding sites in oil filling station the oil and gas recovery system of the gas station should keep tight parts under normal conditions, such as the end cover of the manual oil measuring port, the oil discharge port, and the oil and gas recovery port cover.

Cap, nozzle of liquid collecting tank, oil and gas recovery pipe and valve of fuel dispenser, pressure/vacuum valve of discharge pipe (when closed), connection to oil and gas treatment device the connecting flanges, valves and other parts of the connected pipelines, as well as the interfaces that should be tightly connected with the unloading tools such as oil transport trucks and tankers during the unloading process, Pipelines etc.

oil and gas treatment device vapor recovery device A device that processes and recovers the oil and gas collected by the oil and gas recovery system by means of adsorption, absorption, condensation, membrane separation, etc.

3.10

leak detection value Use the prescribed monitoring method to deduct the VOCs concentration of the equipment and pipeline components detected by the detection instrument and the leakage point of the oil and gas recovery system Net value after ambient background value, expressed as mole fraction of carbon.

Appendix E in GB 20952.

5.2.4.2 The online monitoring system of the gas station can be located near the oil discharge port, inside/outside the tanker (refueling area), artificial oil wells, and oil and gas processing devices Install a concentration sensor at the discharge port, etc. to monitor the concentration of oil and gas leakage.

5.2.4.3 The online monitoring system of the gas station can install HD video monitoring in

key areas such as near the oil unloading area, artificial oil wells, and refueling areas the camera continuously records and stores the unloading operation, manual oil measurement, refueling operation, etc. Can be integrated with existing video equipment at gas stations the video data should be kept for more than 3 months in preparation for the supervision and inspection of the ecological environment department, and the conditions for accessing the environmental protection management platform should be reserved.

5.2.4.4 The online monitoring system of the gas station shall be able to monitor the pressure at the inlet and outlet of the oil and gas treatment device, the oil and gas temperature (condensation method), and the real-time operating conditions.

condition and operating time, etc.

5.2.4.5 The online monitoring system of the gas station shall be calibrated and tested at least once a year. For the calibration and testing method, see Appendix F in GB 20952.

5.3 Boundary environmental noise monitoring

5.3.1

The setting of monitoring points for environmental noise at the boundary of the pollutant discharge unit of the oil storage depot shall follow the principles in HJ 819, mainly considering various types of compressors, pumps, the distribution of noise sources such as pressure regulating valves and throttle valves in the station and the location of surrounding noise-sensitive buildings.

5.3.2

Daytime and nighttime noise monitoring shall be carried out at least once every quarter for the boundary environmental noise of the pollutant discharge unit of the oil storage depot, and the monitoring index shall be equivalent to continuous A sound level. When there is frequent and occasional noise at night, measure the maximum sound level of frequent and occasional noise at the same time. Night noise may not be carried out for those who do not produce at night Monitoring, if there are noise-sensitive buildings around, the frequency of monitoring should be increased.

5.4 Surrounding environmental quality impact monitoring

5.4.1

If there are clear requirements in laws and regulations, etc., carry out monitoring of surrounding environmental quality impact as required.

5.4.2

If there is no specific requirement, if the pollutant discharging unit deems it necessary, it can refer to Table 5 according to the actual situation for the surrounding air, surface water, the monitoring of seawater, groundwater and soil can be carried out according to HJ 194,