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

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**Self-monitoring technology guidelines for pollution sources.
Cement manufacturing industry**

排污单位自行监测技术指南 水泥工业

(English Translation)

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Foreword

In order to implement the Law of the People's Republic of China on Environmental Protection, "Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution", "Chinese Republic of China Law on Prevention and Control of Water Pollution "to guide and standardize the cement industry sewage monitoring work unit itself to develop this standard.

This standard puts forward the general requirements for self-monitoring of the cement industry sewage disposal units, the development of monitoring plans, information recording and reporting 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 self-monitoring of the cement industry sewage disposal units, the development of monitoring plans, information recording and reporting the basic content and requirements.

This standard applies to the cement industry sewage units in the production and operation of its discharge of gas, water pollutants, noise and Surrounding environmental quality impact monitoring.

This standard applies to the cement (clinker) manufacturing, mining, bulk cement transfer station and cement production cement workers Industry sewage monitoring unit. The use of cement kiln co-disposal of hazardous waste, domestic waste (including waste plastics, waste rubber, Waste paper, waste tires, etc., the quality of mixed household garbage shall

not exceed 30% of the total mass of materials into the kiln), urban and industrial wastewater Disposal of sludge, animal and plant processing waste, contaminated soil, emergency waste, etc. Solid waste Cement industry Sewage units Self Line monitoring applies to this standard.

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 4915 Cement Industry Air Pollutant Emission Standard GB 12348 industrial enterprises boundary environmental noise emission standards GB 30485 cement kiln co-disposal of solid waste pollution control standards HJ/T 38 stationary sources - Determination of total non - methane hydrocarbons - Gas chromatography HJ/T 166 Soil Environmental Monitoring Technical Specifications Technical specifications for environmental protection of solid waste collected from cement kilns HJ 819 Technical Guidelines for Self-Monitoring of Sewage Disposal Units General "National Hazardous Waste Directory" (MEP 39)

3 Terms and definitions

GB 4915 and GB 30485 defined and the following terms and definitions apply to this standard.

Cement industry

Refers to the industries engaged in the mining of cement raw materials, manufacture of cement (clinker), bulk cement transfer and the production of cement products department.

Co-processing of solid waste cement kiln bypass ventilation system cement kiln by-pass system Refers to the cement kiln in the co-disposal of solid waste in order to avoid clinker alkali, chlorine, sulfide and other content is too high, reduce or prevent Crust kiln system blockage, the kiln tail high temperature flue gas from the bypass in proportion to the separation and quench, so that the gas phase the presence of volatile condensate on the fly ash, the fly ash collected by the precipitator to discharge the kiln system.

24 Self-monitoring of 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, in accordance with the law to the public monitoring results.

5 monitoring program development

5.1 Exhaust emissions monitoring

5.1.1 Organized emissions monitoring points, targets and frequency

5.1.1.1 Monitoring points Exhaust gas of each process is discharged to the external environment through an exhaust pipe or the like, and the exhaust gas discharge passage in front of the exhaust pipe or the exhaust pipe Set the monitoring point.

5.1.1.2 Monitoring indicators and monitoring frequency the cement industry sewage monitoring units monitoring points and the minimum monitoring frequency according to Table 1 implementation. Co-processing of solid waste During the period, the monitoring points, monitoring indicators and minimum monitoring frequency in Table 2 shall be implemented according to Table 2. The monitoring indicators for other monitoring points and the minimum frequency of monitoring is shown in Table 1.

Table 1 Minimum Monitoring Frequency of Organized Exhaust Gas Monitoring Indicators

Production process	Monitoring points	Monitoring indicators	Monitoring frequency
Cement manufacturing	Cement kiln and kiln waste heat utilization system	Gas cylinder	Particulate matter, nitrogen oxides, sulfur dioxide automatic monitoring
Ammonia b quarter	Fluoride (total F), mercury and its compounds	for six months	Kiln kiln head (cooler) exhaust
particulate matter automatic monitoring	Dryer, drying mill, coal exhaust pipe	particles, sulfur dioxide c, nitrogen oxides c	for six months
Crusher, mill, packaging machine	exhaust particles	for six months	d Conveying equipment and other ventilation production equipment
Exhaust tube	Particles	for two years	Mining Crusher exhaust particles
Conveying equipment and other ventilation production equipment	Exhaust tube	Particles	for two years
in bulk cement Transfer station and cement Product production	Cement silos and other ventilation production equipment	Exhaust tube	Particles for two years

Note. Exhaust gas monitoring must be in accordance with the corresponding monitoring and analysis methods, technical specifications simultaneously monitor the flue gas parameters.

Note a. The key control areas may appropriately increase the monitoring frequency according to the management needs;

b. apply to the use of ammonia, urea and other ammonia-containing material as a reducing agent to remove nitrogen oxides in flue gas process;

c. applies to drying equipment using independent heat source or kiln exhaust heat drying by independent exhaust emissions process;

d. Sewage disposal units should arrange monitoring plans rationally to ensure that the number of monitoring points of the same type of management facilities in each quarter is basically evenly distributed.

Table 2 Minimum monitoring frequency of co-processing of solid waste monitoring indicators for organized waste gas

Monitoring point	Monitoring indicators	Monitoring frequency
Collaborative disposal of non-dangerous Hazardous waste	Collaborative disposal of danger Hazardous waste	

Cement kiln and kiln waste heat Utilize system exhaust Particulate, sulfur dioxide, nitrogen oxides automatic monitoring automatic monitoring Ammonia b quarterly quarter Mercury and its compounds six and a half years Hydrogen chloride (HCl), hydrogen fluoride (HF), thallium, cadmium, lead, arsenic and its compounds (Tl Cd Pb As dollars), beryllium, chromium, tin, antimony, Copper, Cobalt, Manganese, Nickel, Vanadium and their compounds (based on Be Cr Sn Sb Cu Co Mn Ni V), Total Organic Carbon (TOC) c Six months quarter Dioxin category every year Cement kiln bypass ventilation system System exhaust Particulate matter, nitrogen oxides, sulfur dioxide, ammonia b Hydrogen chloride (HCl), hydrogen fluoride (HF), mercury and its compounds, thallium, Cadmium, lead, arsenic and their compounds (Tl Cd Pb As), beryllium, Chromium, Tin, Antimony, Copper, Cobalt, Manganese, Nickel, Vanadium and their compounds be Cr Sn Sb Cu Co Mn Ni V), total organic carbon (TOC) c, d Six months quarter Dioxin category every year Solid waste storage, pre-Processing unit exhaust tube e Odor concentration, hydrogen sulfide, ammonia, particulate matter Six months -Odor concentration, hydrogen sulphide, ammonia, non-methane total hydrocarbons, particulate matter - quarterly Note. Exhaust gas monitoring must be in accordance with the corresponding monitoring and analysis methods, technical specifications simultaneously monitor the flue gas parameters.

Note a. The key control areas may appropriately increase the monitoring frequency according to the management needs;

b. applicable to the use of ammonia, urea and other ammonia-containing material as a reducing agent to remove nitrogen oxides in flue gas production process;

c. Before the release of the national standard monitoring method, TOC can monitor according to relevant standards such as HJ 662 and HJ/T 38;

d. For the co-disposal of hazardous waste cement (clinker) manufacturing sewage units;

e. Sewage units that have obtained the approval of environmental impact assessment after January 1, 2015 (inclusive) shall, on the basis of the environmental impact assessment documents and their replies His environmental management requires the identification of other monitoring projects.

5.1.2 Unorganized emissions monitoring points, indicators and frequency Cement industry sewage unit unorganized emissions monitoring points, monitoring indicators and minimum monitoring frequency according to Table 3 implementation.

Table 3 Minimum monitoring frequency of unorganized emissions monitoring indicators

Monitoring point monitoring indicators monitoring frequency Factory boundary Particulate Quarter Ammonia a, hydrogen sulfide b, odor concentration b, non-methane hydrocarbons c years

Note a. for the use of ammonia, and other ammonia-containing material as a reductant to remove nitrogen oxides in flue gas cement industry sewage units, and the use of water Mud kiln co-disposal