

HJ

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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**Technical specification for pollution control of waste lithium-ion
power battery treatment (for trial implementation)**

废锂离子动力蓄电池处理污染控制技术规范（试行）

(English Translation)

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1 Scope of application

This standard specifies the general requirements for the treatment of waste lithium-ion power batteries, the technical requirements for pollution control in the treatment process, and the control of pollutant emissions.

and environmental monitoring requirements and operational environmental management requirements.

This standard is applicable to the pollution control of waste lithium-ion power battery treatment process, and can be treated as waste lithium-ion power battery related construction Technical reference basis for project environmental impact assessment, construction and operation, environmental protection acceptance upon completion, and emission permit management.

For other types of waste lithium-ion batteries such as energy storage and consumption, as well as the pollution control of the waste disposal process of lithium-ion battery production, please refer to Follow this standard.

This standard does not apply to the fault detection, repair and refurbishment of lithium-ion power batteries during the warranty period.

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 3095 Ambient Air Quality Standard GB 8978 Integrated Wastewater Discharge Standard GB 9078 Industrial Furnace Air Pollutant Emission Standard GB 12348 Industrial Enterprise Boundary Environmental Noise Emission Standard GB/T 14848 Groundwater Quality Standard GB 16297 Comprehensive Emission Standard of Air Pollutants GB 18484 Standard for Pollution Control of Hazardous Waste Incineration GB 18597 Hazardous Waste Storage Pollution Control Standard GB 18599 General Industrial Solid Waste Storage and Landfill Pollution Control Standard GB 31573 Inorganic Chemical Industry 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 819 General Principles of Technical Guidelines for Self-Monitoring of Pollutants

3 Terms and Definitions

The following terms and definitions apply to this standard.

power lithium-ion battery Lithium ions are used as conductive ions to move between the anode and the cathode, and charge and discharge are realized through the mutual conversion of chemical energy and electrical energy, providing new A battery that supplies energy to the energy vehicle powertrain.

battery cell

The basic unit device that converts chemical energy and electrical energy into and out of, usually includes electrodes, separators, electrolytes, casings and terminals, and is Designed to be rechargeable.

battery module

A combination of more than one battery cells in series, parallel or series-parallel, and used as a power source.

battery pack

A unit that obtains electrical energy from the outside and can output electrical energy to the outside, usually including battery cells, battery management modules, battery boxes and corresponding Accessories (cooling components, connecting cables, etc.).

treatment

Extract substances from waste lithium-ion power batteries through dismantling, roasting, crushing, sorting, leaching, purification, smelting and other processing procedures the process of.

dismantling the work of disassembling waste lithium-ion power battery packs and battery modules.

roasting

The process of heating spent lithium-ion power batteries without melting them to change their chemical composition or physical properties.

material recycling

The process of recovering waste electrode material powder or extracting metal materials from waste lithium-ion power batteries using a certain treatment process.

4 General requirements

4.1

The site selection of waste lithium-ion power battery treatment and construction projects should not be located in the State Council and relevant competent departments of the State Council, as well as provinces, autonomous regions, and direct Within the ecological protection red line area, permanent basic farmland and other areas that need special protection designated by the municipal people's government.

4.2

Waste lithium-ion power battery processing enterprises shall have environmental protection facilities that match the production scale.

Construction and operation shall comply with the "Three Simultaneous" environmental management system.

4.3

The site of the waste lithium-ion power battery treatment enterprise shall be divided into areas by function, and the living area shall be separated from the production area.

4.4

The raw material storage area, processing operation area and product storage area of the waste lithium-ion power battery processing enterprise shall be set up in a windproof and rainproof workshop.

The ground should be hardened and an anti-seepage layer should be constructed; the functional areas such as raw material storage area, processing operation area and product storage area should have clear boundaries and standards.

Wastewater collection facilities should be set up in the treatment operation area, and the ground washing wastewater should be collected and treated separately, and should not be directly discharged into the rainwater collection pipe network.

4.5

Waste lithium-ion power battery processing enterprises should give priority to adopting processes and equipment with high resource utilization and low pollutant emissions;

The waste lithium-ion power battery processing enterprise of the battery cell should at least have the ability to process the waste lithium-ion power battery into waste battery electrode material powder Ability.

4.6

The exhaust gas, waste water, noise and other emissions generated in the process of waste lithium-ion power battery treatment should meet the national and local pollutant emissions Standards and pollutant discharge permit requirements; solid waste generated shall be properly stored, utilized and disposed of in accordance with relevant national environmental protection regulations and standards.

4.7

In addition to meeting the relevant requirements for environmental protection, the treatment process of waste lithium-ion power batteries should also comply with national production safety, occupational health, Relevant requirements of laws and regulations such as transportation and fire protection.

5.1 Incoming

5.1.1

The waste lithium-ion power battery should be tested before entering the factory. If it is found that there is liquid leakage, smoke, electricity leakage, damage to the casing, etc., it should be used.

Store it separately in a special container and dispose of it in time to avoid the environmental risk caused by the spontaneous combustion of the waste lithium-ion power battery.

5.1.2

When storing waste lithium-ion power batteries with liquid leakage, smoke, electricity leakage, shell damage, etc., the storage warehouse or container should use micro-negative Pressure design, and equipped with corresponding waste gas collection and treatment facilities.