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

HJ 25.2-2019

**Technical guidelines for monitoring during risk control and
remediation of soil contamination of land for construction**

建设用地土壤污染风险管控和修复 监测技术导则

(English Translation)

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Foreword

According to the "Environmental Protection Law of the People's Republic of China" and the "Law of the People's Republic of China on Soil Pollution Control", Physical health, protecting the ecological environment, strengthening environmental protection and management of construction land, standardizing soil pollution risk management of construction land Control and repair monitoring, develop this standard.

This standard specifies the principles, procedures, work contents and techniques for the management and restoration monitoring of soil pollution risks on construction land.

Claim.

This standard was first published in 2014, and this is the first revision. The main contents of this revision include.

1. The standard name was revised from the Technical Guidelines for Site Environmental Monitoring to the Management and Remediation of Soil Pollution Risks on Construction Land Guidelines for Monitoring Technology;
2. The scope of application shall be modified accordingly with reference to the standard name;
3. Added the normative reference document "Soil Environmental Quality Construction Land Soil Pollution Risk Control Standard" (GB 36600), updated the relevant standard content of normative references;

4. Added terms and definitions for "soil pollution risk control and restoration", deleted "site" and "contaminated site" Terms and definitions, modified the terms and definitions of "concerned about pollutants";
5. Modify "Repair Engineering Acceptance" to "Repair Effect Evaluation" and "Deep Soil" to "Lower Soil" Soil ";
6. Improved the relevant content of the monitoring project and well washing requirements, and refined the vertical sampling interval of soil and evaluation of remediation effect Monitor layouts and more.

This standard and the following standards belong to a series of environmental protection standards for soil pollution risk management and restoration of construction land.

"Technical Guidelines for Investigation of Soil Pollution on Construction Land" (HJ 25.1);

"Technical Guidelines for Risk Assessment of Soil Pollution on Construction Land" (HJ 25.3);

"Guidelines for Soil Remediation Technology for Construction Land" (HJ 25.4);

"Technical Guidelines for Risk Control of Contaminated Land and Evaluation of Soil Remediation Effect" (HJ 25.5);

"Guidelines for Groundwater Remediation and Risk Management and Control of Contaminated Land" (HJ 25.6).

As of the implementation of this standard, the Technical Guidelines for Site Environmental Monitoring (HJ 25.2-2014) is abolished.

This standard was formulated by the Department of Soil Ecology and Environment, Laws and Standards Department of the Ministry of Ecology and Environment.

1 Scope

This standard specifies the basic principles, procedures, work content and skills requirement.

This standard applies to the investigation of soil pollution on construction land and the assessment of soil pollution risk, risk control, restoration, Environmental monitoring of activities such as risk management and control effectiveness assessment, restoration effectiveness assessment, and subsequent management.

This standard does not apply to the monitoring of radioactive and pathogenic biological pollution on construction land.

2 Normative references

The content of this standard refers to the clauses in the following documents. For undated references, the valid version applies for this standard.

GB 3095 Ambient Air Quality Standard GB 5085 Hazardous Waste Identification Standard
GB 14554 Emission Standard for Odor Pollutants GB 36600 Soil Environmental Quality
Control Standards for Soil Pollution Risk of Construction Land GB 50021 Geotechnical
Engineering Exploration Code HJ/T 20 Technical Specifications for Sampling and
Preparation of Industrial Solid Waste HJ 25.1 Technical Guidelines for Investigation of Soil
Pollution on Construction Land HJ 25.4 Technical guidelines for soil remediation for
construction land HJ 25.5 Technical Guidelines for Risk Management and Contamination
Evaluation of Contaminated Land HJ/T 91 Technical specifications for surface water and
sewage monitoring 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 Monitoring of Ambient Air Quality HJ 298 Technical
Specification for Hazardous Waste Identification HJ 493 Technical regulations for the
storage and management of water samples

3 Terms and definitions

The following terms and definitions apply to this standard.

Risk control and remediation of soil contamination Soil pollution risk management and remediation includes investigation of soil pollution status and assessment of soil pollution risks, risk management and control, repair Assessment, risk management and control effect assessment, restoration effect assessment, and later management activities.

Contaminant of concern Determine the need for soil pollution based on the characteristics of the land pollution, relevant standards and specifications, and stakeholder opinions
Pollutants in environmental surveys and soil pollution risk assessments.

Soil mixture sample

Refers to the soil sample after the surface layer or the same layer of soil is evenly mixed.
The number of sampling points that make up the mixed sample should be 5-20.

4.1.1 Principles of relevance

Plot environmental monitoring should be based on the investigation of soil contamination status, soil pollution risk assessment, treatment and restoration, and evaluation of restoration effects.

The purpose and requirements of environmental management at various stages such as assessment and retrospective assessment are carried out to ensure the coordination,

consistency and timeliness of monitoring results.

Effectiveness, providing a basis for environmental management of the plot.

4.1.2 Normative principles

Programmatically and systematically standardize the basic principles, working procedures and working methods that should be followed in the environmental monitoring of land plots Method to ensure the scientificity and objectivity of the land environment monitoring.

4.1.3 Feasibility Principle

Survey and review of soil pollution status and soil pollution risk assessment, governance and restoration, and assessment of remediation effects in the conditions of monitoring requirements at various stages such as performance assessment, comprehensive consideration of factors such as monitoring costs and technology application levels, to ensure that the monitoring work was feasible and the follow-up work went smoothly.

4.2.1 Survey and monitoring of soil pollution in the plot

The environmental monitoring during the investigation of soil pollution status and the risk assessment of soil pollution, the main work is to use monitoring Means to identify pollutants of concern and hydrogeological characteristics in soil, groundwater, surface water, ambient air, residual waste Collect, and comprehensively analyze and determine the types of pollution, the degree of pollution, and the scope of pollution in the plot.

4.2.2 Monitoring of land improvement and repair

Environmental monitoring during land remediation and repair, the main work is the implementation effect of various remediation and repair technical measures Relevant monitoring carried out, including the monitoring of environmental protection engineering quality and secondary pollutant discharge during the process of remediation Monitoring.

4.2.3 Evaluation and monitoring of land restoration effect

The environmental monitoring after the completion of the land remediation project is to assess and evaluate the Whether it has met the identified restoration goals and the relevant requirements raised by the engineering design.

4.2.4 Retrospective Evaluation and Monitoring of Land

After evaluation of the repair effect of the land, within a specific time range, in order to evaluate the land and soil Environmental monitoring of the environmental impacts of sewage, surface water and ambient air, as well as long-term in situ treatment of the land Validate environmental monitoring of the effects of physical restoration measures.