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

GB/T 39791.2-2020

**Technical guidelines for identification and assessment of
environmental damage - General principles and key
components - Part 2: Damage investigation**

生态环境损害鉴定评估技术指南 总纲和关键环节 第2部分：损害调查

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Investigation principles
- 5 Work content and work procedures
- 6 Preliminary investigation
- 6.1 Data collection and analysis
- 7 System investigation
- 7.1 Survey content
- 7.3 Investigation requirements
- 7.3.1 Baseline level survey

1 Scope

GB/T 39791.2-2020 is Part 2 of the Chinese technical guidelines for identifying and assessing ecological and environmental damage, and covers the investigation. The investigation is where an ecological damage case is won or lost: the evidence is perishable, the baseline against which damage is measured usually has to be reconstructed after the fact, and a sampling design that a defendant can pick apart takes the assessment with it. The standard sets the investigation principles, the work content and procedures, the preliminary investigation, the systematic investigation, the quality assurance and quality control, and the summary and analysis of the information gathered, with informative annexes giving the assessment questionnaire and guidance on sampling surveys. It excludes damage from nuclear and radiological causes and took effect on 1 January 2021.

25.1 Technical Guidelines for the Investigation of Soil Pollution Status of Construction Land HJ

25.2 Technical Guidelines for Soil Pollution Risk Control and Remediation Monitoring of Construction Land HJ

91.1 Technical Specification for Wastewater Monitoring

HJ 493 Technical Regulations for Storage and Management of Water Quality Samples

HJ 1069 Determination of Acute Toxicity of Water Quality Zebrafish Egg Method

HJ 710 (all parts) Technical guidelines for biodiversity observation HJ/T

55 Technical Guidelines for Monitoring Unorganized Emissions of Air Pollutants HJ/T 91 Technical specification for surface water and sewage monitoring HJ/T 164 Technical Specification for Groundwater Environmental Monitoring HJ/T 166 Technical Specification for Soil Environmental Monitoring HJ/T 194 Technical specification for manual monitoring of ambient air quality HJ/T 298 Technical Specification for Identification of Hazardous Wastes HJ/T 373 Fixed pollution source monitoring quality assurance and quality control technical specifications (trial implementation) HJ/T 397 Fixed source exhaust gas monitoring technical specification HJ/T 589 Emergency Monitoring Technical Specification for Emergent Environmental Incidents SN/T 3524 Chemical fish reproductive toxicity test method CJ/T 150 Determination of Mutagen in Urban Water Supply Salmonella Typhimurium/Mammalian Microsomal Enzyme Test

NY/T 395 Technical Specification for Monitoring Farmland Soil Environmental Quality

NY/T 396 Farmland Water Source Environmental Quality Monitoring Technology

NY/T 397 Ambient air quality monitoring technical specifications for agricultural areas

NY/T 789 Pesticide residue analysis sample sampling method

NY/T 1669 Technical Specification for Investigation of Agricultural Wild Plants SF/ZJD 0606001 Operational technical specification for judicial identification of agricultural environmental pollution damage SF/ZJD 0606002 Technical specifications for forensic investigation of crop pollution designated by the Ministry of Justice LY/T 1814 Specification for Investigation of Biodiversity in Nature Reserve SC/T 9102 Fishery Ecological Environment Monitoring Specification DD.2014 Groundwater Pollution Investigation and Evaluation Sample Analysis Quality Control Technical Requirements DZ/T 0282 Hydrogeological Survey Specification (1.50000) National Technical Regulations on Plant Species Resources Investigation (for Trial Implementation) (Ministry of Environmental Protection Announcement [2010] No. 27) National Animal Species Resource Investigation Technical Regulations (for Trial Implementation) (Ministry of Environmental Protection Announcement [2010] No. 27) National Technical Regulations on the Investigation of Freshwater Biological Species Resources (for Trial Implementation) (Ministry of Environmental Protection Announcement [2010] No. 27) National Marine Biological Species Resources Investigation Technical Regulations (for Trial Implementation) (Ministry of Environmental Protection Announcement [2010] No. 27) National Microbial Resources Investigation Technical Regulations (for Trial Implementation) (Ministry of Environmental Protection Announcement [2010] No. 27)

2 Normative references

This standard refers to the following documents or their clauses. For dated reference documents, only the dated version applies to this standard. For undated references, the latest version (including all amendments) applies to this standard.

GB 5085 (all parts) Identification standard for hazardous waste

GB 5490 General Rules for Grain and Oil Inspection

GB 15618 Soil Environmental Quality Agricultural Land Soil Pollution Risk Control Standard (for Trial Implementation)

GB 17378 Marine Monitoring Specification

GB 34330 General Rules for the Identification Standard of Solid Waste

GB 36600 Soil Environmental Quality Construction Land Soil Pollution Risk Control Standard (Trial)

GB/T 12763 Marine Survey Specification

GB/T 12990 PFU method for monitoring water quality microbiota

GB/T 13266 Method for the determination of acute toxicity of water substances to fleas (large fleas)

GB/T 13267 Determination of acute toxicity of water quality substances to freshwater fish (zebrafish)

GB/T 15441 Water quality-Determination of acute toxicity-Luminescent bacteria method

GB/T 16310 Specification for Hazard Evaluation of Liquid Chemicals Transported in Bulk on Ships

GB/T 21281 Classification test method for acute toxicity of hazardous chemicals in fish

3 Terms and definitions

The following terms and definitions apply to this guide.

3.1 Environmental damage investigation Use scientific and systematic on-site surveys, monitoring, observations, interviews, aerial photography, data access and other methods to collect information and data to make a living The process of providing support for the assessment of environmental damage.

4 Investigation principles

4.1 Normative principles A procedural and systematic approach is adopted to standardize the investigation behavior. Professionals use nationally-recognized technical methods to conduct on-site investigations. Investigation and monitoring ensure the scientificity and objectivity of the investigation process. During the investigation, data and information collection, sample collection and transportation, The analysis and testing of samples shall be carried out in accordance with relevant technical specifications.

4.2 The principle of neutrality Investigation activities are not subject to interference from any

department or personal factors. The personnel involved in the investigation should remain neutral and not be entrusted by the appraisal And other interference.

4.3 The principle of comprehensiveness The investigation should be rigorous and thorough, without partiality, to ensure that the investigation data and conclusions can objectively reflect environmental pollution or ecological damage. condition.

4.4 Timeliness principle Intervene as soon as possible after environmental pollution or ecological damage occurs, start work as soon as possible, formulate investigation plans and monitoring plans in time, and obtain relevant information Data, conduct environmental monitoring, and obtain the data needed for identification and evaluation.

5 Work content and work procedures

5.1 Work content Ecological environment damage investigation includes ecological environment baseline investigation, pollution source investigation, environmental quality investigation, biological investigation, and ecological service functions Survey, ecological environment restoration measures and cost survey, ecological environment restoration effect evaluation survey.

5.2 Working procedures The ecological environment damage investigation is divided into two stages. preliminary investigation and systematic investigation. The preliminary investigation mainly includes data collection, site survey and human Interviews with personnel to make preliminary judgments and analyses on the scope and extent of ecological environment damage. Environmental monitoring in the preliminary investigation stage with rapid on-site testing Mainly, carry out laboratory tests as needed. On the basis of preliminary investigations, systematic investigations will carry out targeted investigations on ecological Provide support for damage confirmation and damage quantification. The preliminary investigation and systematic investigation phases shall separately formulate investigation work plans. The plans include investigation objects, investigation contents, investigation methods, and investigations. Check methods and quality control. Investigators should choose to collect relevant information based on the specific circumstances of ecological environment damage and the needs of ecological environment damage assessment, and make ecological List of environmental damage assessment materials (see Appendix B). After the investigation work is completed, please refer to Appendix A for the preparation requirements of the ecological environment damage appraisal assessment investigation report. The working procedure of the investigation is shown in Figure 1.

6.1 Data collection and analysis

6.1.1 Background information survey collection The main content collected by background information investigation includes.

a) Natural conditions such as climate and weather, topography and geomorphology,