

HJ

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

HJ 1148-2020

**The format and content of the radiation environmental protection
acceptance monitoring report for the completion of the associated
radioactive mine development and utilization project**

伴生放射性矿开发利用项目竣工辐射环境保护验收监测报告的格式与内容
(English Translation)

Issued on: December 3, 2020

Implemented on: January 1, 2021

Issued by: Ministry of Ecology and Environment

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Appendix A (Normative Appendix) The format and content of the radiation environmental protection acceptance monitoring report for the completion of the associated radioactive mine development and utilization project

Foreword

In order to implement the "Law of the People's Republic of China on the Prevention and Control of Radioactive Pollution", the "Environmental Impact Assessment Law of the People's Republic of China", the "Environmental Protection Management Regulations", which regulates the acceptance and monitoring of radiation environmental protection after completion of development and utilization projects of associated radioactive minerals, and formulates this standard.

This standard specifies the format and content of the radiation environmental protection acceptance monitoring report for the development and utilization of associated radioactive minerals.

Adjust the content of the report according to the actual situation.

The completed radiation environmental protection acceptance monitoring report shall be part of the project completion environmental protection acceptance monitoring report and shall be prepared simultaneously.

This standard is issued for the first time.

Appendix A of this standard is a normative appendix.

This standard was formulated by the Department of Radiation Source Safety Supervision and the Department of Regulations and Standards of the Ministry of Ecology and Environment.

Drafting organization of this standard. Beijing Institute of Chemical Metallurgy of Nuclear Industry.

This standard was approved by the Ministry of Ecology and Environment on December 3, 2020.

This standard shall come into effect on January 1, 2021.

This standard is interpreted by the Ministry of Ecology and Environment.

Completion of the associated radioactive mine development and utilization project, radiation environmental protection acceptance Format and content of monitoring report

1 Scope of application

This standard specifies the format and content of the radiation environmental protection acceptance monitoring report for the development and utilization of associated radioactive minerals.

Adjust the content of the report according to the actual situation.

This standard is applicable to the completion of radiation environmental protection acceptance supervision of the development and utilization project of associated radioactive minerals in the compilation of special articles on radiation environmental impact assessment.

Test work.

2 Normative references

This standard quotes the terms in the following documents. For undated reference documents, their valid versions are applicable to this standard.

GB 18871 Basic standard for ionizing radiation protection and radiation source safety HJ 1114 Technical Specification for Environmental Protection of Radiation Environmental Protection for Storage of Associated Radioactive Materials and Solid Waste Landfill (Trial)

3 Terms and definitions

The terms and definitions defined in GB 18871 apply to this standard.

Other radioactive mines Refers to raw ore, intermediate products, tailings,, or other residues of uranium (thorium) in which the activity concentration of a single nuclide exceeds 1 Bq/g.

Uranium (thorium) mine.

Effluents

In practice, when the source is discharged into the environment in the form of gas, aerosol, dust or liquid, it can be diluted in the environment under normal circumstances and dispersed radioactive material.

Other radioactive material Uranium (thorium) used or produced in the development and

utilization of non-uranium (thorium) mineral resources is a source with a single nuclide activity concentration exceeding 1 Bq/g Mines, intermediate products, tailings, and other residues.

Other radioactive solid waste Uranium (thorium) produced in the development and utilization of non-uranium (thorium) mineral resources is a solid waste with a single nuclide activity concentration exceeding 1 Bq/g, Including tailings, and other residues produced during mining and smelting.

4 Content and format requirements

The completed radiation environmental protection acceptance monitoring report shall be part of the project completion environmental protection acceptance monitoring report and shall be prepared simultaneously.

The content of the completed radiation environmental protection acceptance monitoring report should include but not limited to the following. project overview, acceptance basis, project construction Situation, radioactive pollution prevention and control facilities, main conclusions and recommendations of the special article on radiation environmental impact assessment, comments on the approval of environmental assessment documents, and acceptance Accuracy, acceptance monitoring plan, quality assurance, acceptance monitoring results, acceptance monitoring conclusions and attachments, etc.

The normative appendix A of this standard gives the format of the radiation environmental protection acceptance monitoring report for the development and utilization of associated radioactive minerals.

And content.

A.1 Project overview Briefly describe the project approval, construction and commissioning process, the preparation unit and the approval time of the radiation environmental impact assessment paper, and the radiation environmental protection after completion Acceptance inspection and monitoring unit, acceptance scope and content, acceptance monitoring entrusted status, and acceptance monitoring process.

A.2 Basis for acceptance Provide radiation environmental protection laws, regulations, rules and technical specifications related to the project, special articles on radiation environmental impact assessment and environmental assessment document approval opinions and other related documents.

A.3 Project construction **A.3.1 Geographical location and layout** Briefly describe the geographical location of the project and surrounding environmentally sensitive targets, and give a geographical map and the location of environmentally sensitive targets and radiation-related facilities Relationship diagram.

Briefly describe the relative position of the main facilities of the project in the factory area,

and give the project layout plan. Various types of radiation are indicated on the floor plan the distance between related production facilities, airborne effluent and liquid effluent discharge points, associated radioactive materials and solid waste storage sites, and the plant boundary.

A.3.2 Construction content Briefly describe the project products, production scale, construction content, actual total investment, etc., and give the construction content and List of actual construction content.

For reconstruction and expansion projects, a brief introduction should be made to the original engineering facilities and the relationship between the project and the original engineering.

A.3.3 Main raw and auxiliary materials the list explains the name, source, design unit consumption, and unit consumption during commissioning of the main raw materials and auxiliary materials.

A.3.4 Production process Briefly describe the main production process, and give a schematic diagram of the production process, which indicates the production and discharge of associated radioactive pollutants.

A.3.5 Water balance and nuclide balance Briefly describe the production water source, water consumption, circulating water volume, waste water reuse volume and discharge volume of the project, and give a water balance diagram for actual operation.

Analyze the main radionuclides such as uranium or thorium and their distribution and whereabouts in the process, and give the main radionuclide balance diagram.

A.3.6 Project changes Briefly describe the main changes of the project, including radiation environmental impact assessment special articles and environmental assessment document approval requirements, actual construction conditions, the reason for the change and analyze whether it is a major change.

A.4 Radioactive pollution prevention and control facilities
A.4.1 Implementation of the "Three Simultaneities" of radioactive pollution prevention and control facilities Briefly describe the implementation of the "Three Simultaneities" of the project's radioactive pollution prevention and control facilities, and give a special chapter on radiation environmental impact assessment, design, and actual construction List of circumstances.

A.4.2 Radioactive pollution prevention and control facilities
A.4.2.1 Associated radioactive waste water Briefly describe the source, quantity, types of radionuclides, treatment facilities, discharge conditions, design treatment capacity and treatment of associated radioactive waste water Efficiency, and list description. Provide a schematic diagram of the relevant treatment process, a schematic diagram of the treatment facility and photos. Description of associated radioactive waste water treatment Whether the facility meets the requirements of the special paper on radiation environmental impact assessment and environmental