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INDUSTRY STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

EJ/T 20149.2-2018

Guidelines for the design of hot cell equipment-Part 2: Mechanical drive systems for remote operation

热室设备设计导则 第2部分：远程操作用机械驱动系统

(English Translation)

Issued on: December 28, 2018 **Implemented on: March 1, 2019**

Issued by: State Administration of Science, Technology and Industry for National Defense

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1 Foreword

EJ/T 20149.2-2018 was issued by State Administration of Science, Technology and Industry for National Defense on 28 December 2018 and has been in force since 1 March 2019.

It is one of 2 parts of the EJ/T 20149 series.

This is a draft translation for reference among interesting stakeholders. The finalized translation (passing through draft translation, self-check, revision and verification) will be delivered upon being ordered.

2 Scope Preview

This part specifies guiding principles for the design, selection, quality assurance, installation, operation, and maintenance of mechanically driven systems used in remote operation hot cell environments. The mechanically driven systems referred to in this part include individual components that transmit driving force to hot cell equipment systems,

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subsystems, assemblies, and other components, as well as complete positioning units and systems that provide position indicators required for driving force and motion monitoring. Specific types include, but are not limited to: drive motors; torque transmission components (such as gears, shafts, couplings, transmission belts, transmission chains, torque limiters, slip clutches, brakes); linear positioning systems (such as lead screws, screw jacks, pneumatic cylinders, hydraulic cylinders, electric actuators); position indicators (such as resolvers, encoders, linear variable differential transformers, limit switches). This part applies to mechanically driven systems operating under one or more of the following conditions: materials handled or processed pose a significant radiation hazard to personnel or the environment; the equipment service life typically exceeds two years, although equipment with a shorter service life is not excluded; equipment cannot be operated or maintained directly and can only be observed through radiation shielding windows or video observation systems.

EJ/T 20149.2-2018 carries no ICS number and no Chinese Standard Classification code.

This catalogue holds 313 other EJ/T standards.

In this catalogue, EJ/T standards carry edition years from 1992 to 2018.

3 About this standard

Sector: Nuclear Industry Standard (Recommended)

Issued by: State Administration of Science, Technology and Industry for National Defense

English translation: about 15 pages (approximate)

4 Related standards

Other parts of this standard:

EJ/T 20149.1-2018 - Thermal equipment design guides - Part 1: General design guidelines

Standards on related subjects:

JB 2293-1978 - Wind tunnel test method of radiator of automobile and tractor

5 Classification and status

Prefix EJ/T: recommended standard.

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