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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 36937-2018

Environmentally conscious design for laboratory instruments and equipment

实验室仪器及设备环境意识设计

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1 Scope

China's national standard for environmentally conscious design of laboratory instruments and equipment. It specifies the terms and definitions and the overall considerations for product design and development, beginning with the introduction of environmental awareness at the concept stage. Laboratory instruments are an unusual case for ecodesign. They are made in small numbers, they are expensive, they last for decades, and their environmental burden is dominated not by their manufacture but by what they consume in use: a mass spectrometer's vacuum pumps and a chromatograph's carrier gas run continuously, and an ultra-low temperature freezer draws as much power as a household. They also concentrate hazardous materials - solvents, reagents, radioactive sources, refrigerants - and their disposal is correspondingly awkward. The standard's insistence that environmental thinking enters at the concept stage rather than at the end reflects the ordinary finding of ecodesign: most of a product's impact is fixed by decisions taken before anything is drawn.

This standard specifies the basic principles for introducing environmental factors into laboratory instruments and equipment products, and also specifies low temperature constant temperature circulation devices, low Temperature constant temperature tank, high

temperature constant temperature circulation device, high temperature constant temperature tank, bio-artificial climate chamber, climate environment test chamber, biochemical incubator, drying oven, work Special requirements for environmentally conscious design of industry analyzers, laboratory centrifuges, salt shakers, shakers, oxygen bomb calorimeters and balances. This standard applies to the environmental awareness design of laboratory instruments and equipment products (hereinafter referred to as products).

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB 4793.7-2008 Safety requirements for electrical equipment for measurement, control and laboratory use - Part

3 Terms and definitions

The following terms and definitions are defined in GB/T 19000-2016, GB/T 24001-2016 and GB/T 24040-2008. In this document.

3.1 Environmental environment The external presence of organizational operations, including air, water, land, natural resources, plants, animals, people, and the mutual relationship.

Note 1. External presence may extend from within the organization to local, regional and global systems.

Note 2. External presence can be described by available biodiversity, ecosystems, climate or other characteristics. [GB/T 24001-2016, definition 3.2.1]

3.2 Environmental factor environmentalaspect An element of an organization's activities, products, or services that interacts with the environment or with the environment.

Note 1. An environmental factor may produce one or more environmental impacts, and an important environmental factor is one that has or is capable of producing one or more significant environmental impacts. envirnmental factor.

Note 2. Important environmental factors are determined by the organization using one or more criteria. [GB/T 24001-2016, definition 3.2.2]

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7 Special requirements

GB/T 9237-2017 Refrigeration systems and heat pump safety and environmental requirements

GB/T 18268.1-2010 Electromagnetic compatibility requirements for electrical equipment - Part 1 . General requirements

GB/T 19000-2016 Quality Management System Foundation and Vocabulary

GB/T 24001-2016 Environmental Management System Requirements and User Guide

GB/T 24040-2008 Environmental Management Life Cycle Assessment Principles and Framework

GB/T 24062-2009 Environmental Management Introduces Environmental Factors into Product Design and Development