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BUREAU OF INDIAN STANDARDS

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भारतीय मानक **मसौदा**

अंतरिक्ष प्रणालियाँ — द्रव तंत्र की सतह की सफाई
भाग 4 रफ-क्लीनिंग प्रक्रियाएँ

Draft *ndian Standard*

Space Systems — Surface Cleanliness of Fluid Systems
Part 4 Rough-Cleaning Processes

ICS: 49.080

Air and Space Vehicles Sectional Committee, TED 14	**Last date for receipt of comments is 28/08/2024**

NATIONAL FOREWORD

(Identical Clause to be added later)

This standard is one of a series of Standards on the Space systems — Surface cleanliness of fluid systems. Other standard in this series are:

Doc No.	*Title*
Doc (22927)/ ISO 14952-1 : 2003	Space systems — Surface cleanliness of fluid systems — Part 1 Vocabulary (*under development*)
Doc (22930)/ ISO 14952-2 : 2003	Space systems — Surface cleanliness of fluid systems — Part 2 Cleanliness levels (*under development*)
Doc (22931)/ ISO 14952-3 : 2003	Space systems — Surface cleanliness of fluid systems — Part 3 Analytical procedures for the determination of nonvolatile residues and particulate contamination (*under development*)
Doc (22933)/ ISO 14952-5 : 2003	Space systems — Surface cleanliness of fluid systems — Part 5 Drying processes (*under development*)
Doc (22934)/ ISO 14952-6 : 2003	Space systems — Surface cleanliness of fluid systems — Part 6 Precision-cleaning processes (*under development*)

The text of ISO standard has been proposed as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.

b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exists. The corresponding Indian Standard, which is to be substituted in its respective place, is listed below along with its degree of equivalence for the edition indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 14952-1 : 2003 Space systems — Surface cleanliness of fluid systems — Part 1 Vocabulary	Doc (22927)/ ISO 14952-1 : 2003 Space systems — Surface cleanliness of fluid systems — Part 1 Vocabulary (*under development*)	Identical under dual numbering

The technical committee has reviewed the provisions of following International Standards referred in this adopted standards and has decided that their acceptable for use in conjunction with this standard:

International Standard	*Title*
ISO 14951-10 : 1999	Space systems — Fluids characteristics — Part 10 Water

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

SCOPE

This part of ISO 14952 provides requirements related to rough-cleaning processes used to prepare parts and components for precision cleaning. It identifies precleaning processes that can be used for ground support equipment, launch vehicles and spacecraft.

Rough cleaning removes contaminants such as weld scale, heat-treat scale, corrosion, oxide films, oils, grease, and shop soil, fuel and carbon deposits. Rough cleaning is considered a normal shop process and usually does not require special environmental controls, packaging, handling or storage beyond accepted good practice.

This part of ISO 14952 is applicable equally to ground support equipment, launch vehicles and spacecraft.

FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 14952-4: 2003 or CONTACT:

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