ISA-TR52.00.01-2006

Recommended Environments for Standards Laboratories

Approved 29 December 2006

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ISBN: 978-1-55617-977-8

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Preface

This preface, as well as all footnotes and annexes, is included for information purposes and is not part of ISA-TR52.00.01-2006.

This document has been prepared as part of the service of ISA—the Instrumentation, Systems, and Automation Society—toward a goal of uniformity in the field of instrumentation. To be of real value, this document should not be static but should be subject to periodic review. Toward this end, the Society welcomes all comments and criticisms and asks that they be addressed to the Secretary, Standards and Practices Board; ISA; 67 Alexander Drive; P. O. Box 12277; Research Triangle Park, NC 27709; Telephone (919) 549-8411; Fax (919) 549-8288; E-mail: standards@isa.org.

This project began with Task Force No.1 on Environmental Standards as organized by the Measurement Standards Division in 1959. A report was published in the February 1961 issue of the ISA Journal, entitled "Recommended Environments for Standards Laboratories." In 1962 the Measurement Standards Instrumentation Division organized the F-6 Environmental Committee. The Committee's report was published in the October 1964 issue of ISA Transactions, entitled "Recommended Environments for Standards Laboratories."

The committee known as the RP 52 Committee on Recommended Environments for Standards Laboratories was organized by the Metrology Division in 1966. This committee conducted a panel discussion meeting at the 23rd Annual ISA Conference (1968) in New York City. The purpose was to review the 1964 Recommendations and to elicit new information from the audience on experience gained from environmental control of standards laboratories.

From a resume of this panel discussion it was possible for the committee members to formulate a revision of the 1964 Recommendations in light of new information. As an additional step, a reedited version of the panel discussion was sent to 29 members of the National Conference of Standards Laboratories (NCSL) in order to gain further information. Selection for this survey was made from among the total membership in NCSL on the basis of extended experience with operation of a standards laboratory where environmental control was a factor of concern and interest. From responses of a portion of the 29 members selected, it was possible for the committee to have additional information at hand as an aid in revising the 1964 Recommendations. The result of this somewhat lengthy process of revision was the original ISA-RP52.1-1975 document.

The SP52 committee has updated the existing references within this document and also added references to NSTL RP-14, *Guide to Selecting Standards-Laboratory Environments*, where appropriate in this version published as a technical report.

The ISA Standards and Practices Department is aware of the growing need for attention to the metric system of units in general, and the International System of Units (SI) in particular, in the preparation of instrumentation standards. The Department is further aware of the benefits to USA users of ISA standards of incorporating suitable references to the SI (and the metric system) in their business and professional dealings with other countries. Toward this end, this Department will endeavor to introduce SI-acceptable metric units in all new and revised standards, recommended practices, and technical reports to the greatest extent possible. *Standard for Use of the International System of Units (SI): The Modern Metric System*, published by the American Society for Testing & Materials as IEEE/ASTM SI 10-97, and future revisions, will be the reference guide for definitions, symbols, abbreviations, and conversion factors.

It is the policy of ISA to encourage and welcome the participation of all concerned individuals and interests in the development of ISA standards, recommended practices, and technical reports. Participation in the ISA standards-making process by an individual in no way constitutes endorsement by