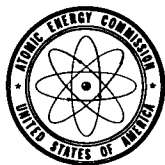


December 1968

Brief 68-10445



AEC-NASA TECH BRIEF



AEC-NASA Tech Briefs describe innovations resulting from the research and development program of the U.S. AEC or from AEC-NASA interagency efforts. They are issued to encourage commercial application. Tech Briefs are published by NASA and may be purchased, at 15 cents each, from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

Environmental Test Planning, Selection and Standardization Aids Available

Environmental testing is a tool used by design and development engineers to supplement analytical design procedures with empirical results. Test results verify or modify design assumptions as the design progresses, and testing demonstrates the adequacy of the design to perform under the environmental stresses which are expected in use. Environmental tests are also used by manufacturing and quality control engineers during production and by quality assurance personnel after the product is in use. If results of environmental tests are to be relied upon, it is essential that personnel conducting such tests do not substantially alter the outcome inadvertently by different choices of instrumentation, techniques, or equipment.

Sandia Laboratories has found by experience that standardized instrumentation, techniques, and equipment are as essential as standardized test levels. This is particularly important when the same design or product is tested by different laboratories. In order to promote uniformity in specifying and conducting environmental tests, Sandia personnel have prepared a report which presents requirements for instrumentation, equipment, and methods to be used in conduct-

ing environmental tests on components. This document is intended for use by a wide variety of technical personnel of different educational backgrounds, experience, and interests, and helps fill the gap that exists because there are no generally recognized standards governing the conduct of environmental testing. The material is intended to provide guidance to those involved in testing, to those involved in specifying or evaluating environmental tests, and to design, production, and quality engineers.

This report is available from Sandia Laboratories. Requests or inquiries should be directed to:

Sandia Office of Industrial Cooperation,
Sandia Laboratories
Post Office Box 5800
Albuquerque, New Mexico 87115
Reference: B68-10445

Patent status:

No patent action is contemplated by AEC or NASA.

Source: E. H. Copeland and J. T. Foley
(SAN-10028)

Category 03