



# 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.

## Workmanship Standards for Fusion Welding

### The problem:

To define workmanship and standard practices, subject to acceptance and approval by rigid codes and specifications, for the fabrication, by fusion welding, of component piping, assemblies, and systems.

### The solution:

The development and publication of a workmanship standards manual as part of the standard operating procedure for fusion welding.

### How it's done:

*The Workmanship Standards Manual for Welding* covers the multiple aspects of fusion welding required in the fabrication, assembly, and installation of a major nuclear test facility. It provides personnel with a better understanding of the workmanship standards required in producing quality welds. It covers such aspects of welding as qualification, basic rules, care of filler material, shielding gas, root pass, filler pass, face pass, socket welds, and weld identification. The document contains written and pictorial presentations of the various types of welds and weld preparations. Illustrations include examples of acceptable and unacceptable welds.

### Note:

Copies of the document, *Workmanship Standards Manual for Welding*, by M. D. Phillips, NTO-SOP-0090, NERVA Test Operations, Jackass Flats, Nevada, October 1966, are available from:

Technology Utilization Officer  
AEC-NASA Space Nuclear Propulsion Office  
U.S. Atomic Energy Commission  
Washington, D.C. 20545  
Reference: B67-10200

### Patent status:

No patent action is contemplated by AEC or NASA.

Source: M. D. Phillips  
of Aerojet General  
under contract to  
AEC-NASA Space Nuclear Propulsion Office  
(NUC-10050)

Category 05