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October 13, 1980

Division of Human Factors Safety
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Dr. Stephen Hanauer

Gentlemen:

We have reviewed the recent draft of NUREG/CR-1580 (Volumes I and II), "Human Engineering Guide to Control Room Evaluation" dated August, 1980. Our comments are given in the attachment to this letter. We hope our comments will be of some assistance to you.

Very truly yours,

A handwritten signature in cursive script, appearing to read "S. A. Bernsen".

S. A. Bernsen
Manager of Nuclear Engineering

SAB/pw

Attachment

1601
SIP

8010200 413

Comments
on
NUREG/CR-1580

Part I

Part I of NUREG/CR-1580 includes an over abundance of detail. It is anticipated that this methodology is a suggested review procedure, as stated, and does not preclude any other acceptable procedures. This part of the NUREG is very useful in establishing a control room review plan.

Part II

1. A number of the guidelines are related to human engineering considerations which are controlled by other industry standards. The NUREG should be referencing those standards, not introducing duplicate or contradictory guidelines.

Example: Passageway Dimensions (WA-31)

Minimum passageway dimensions are contrary to the requirements of the OSHA standards and building codes.

- Recommend a review to eliminate those guidelines that contradict or duplicate current codes and standards.

2. Several guidelines assume operating philosophies which are not typical of a nuclear power plant control room.

Example: Seated operator envelope of reachability is assumed to be from one point as illustrated on Pages WA-6, WA-28, and WA-29.

Due to the size of even the most advanced control panels, the operator must be more mobile than these guidelines indicate.

3. Most guidelines are drawn from existing human engineering references with a partial attempt to adapt them to power plant applications or power plant terminology.

Example: Examples used refer to "joysticks" or "flight service."

Labeling of power plant control panels is normally done with nameplates. There is no reference to nameplate usages.

- Suggest a review of the guidelines to include the appropriate power plant terminology and include guidelines addressing the use of nameplates and their unique characteristics.