

NUCLEAR REGULATORY COMMISSION

NUREG - 0700, Rev. 1; Issuance, Availability

The Nuclear Regulatory Commission (NRC) has developed guidance for the review of advanced control room designs and advanced human-system interfaces that may be located within conventional control rooms. This is being issued as Revision 1 to NUREG-0700, "Human-System Interface Design Review Guideline," which is the successor to, and integrates relevant sections of, the previous guidance used by the NRC staff, NUREG-0700 (1981), "Guidelines for Control Room Design Reviews." NUREG-0700, Revision 1 provides human factors engineering (HFE) guidance to the NRC staff for its: (1) review of the human system interface (HSI) design submittals prepared by licensees or applicants for a license or design certification of commercial nuclear power plants, and (2) performance of HSI reviews that could be undertaken as part of an inspection or other type of regulatory review involving HSI design or incidents involving human performance. The guidance consists of a review process and HFE guidelines. It describes those aspects of the HSI design review process that are important to the identification and resolution of human engineering discrepancies that could adversely affect plant safety. It provides guidance for the NRC staff to use in their review of an applicant's HSI design review process or to guide the NRC staff development of a review or inspection plan. It also provides detailed HFE guidelines for the assessment of HSI design implementations.

NUREG-0700, Revision 1 consists of three stand-alone volumes. Volume 1, "Process and Guidelines," is the principal technical document and includes a detailed discussion of both the review procedures and the HFE guidelines. In

Volume 2, "Reviewer's Checklist," the HFE guidelines are in a checklist format. Volume 3, "Review Software and User's Guide," is an interactive software application to support design reviews.

Revision 1 to NUREG-0700 is not a backfit and does not impose new requirements on current plants. It is not a generic communication that proposes a new NRC staff position or seeks additional licensee commitments. This document would not apply to licensees under 10 CFR Part 50 for the review of human-system interfaces unless the licensee initiated a voluntary upgrade.

Revision 1 to NUREG-0700 was developed to apply primarily to advanced reactors. New plant designs submitted to the NRC for review and approval under 10 CFR 52.47(a)(1)(ii) must meet 10 CFR 50.34(f)(2)(iii), which requires a "control room design that reflects state-of-the-art human factors principles." Revision 1 to NUREG-0700 will be used by the NRC staff as part of the comprehensive human factors engineering review process for advanced reactors described in the "Human Factors Engineering Program Review Model," NUREG-0711 (July 1994).

Revision 1 to NUREG-0700 is consistent with a previously established Commission position in that it does not include generic design certification communications or generic decisions for future plants (see SECY-92-224, June 22, 1992). The NUREG itself is not mandatory. Rather, the guidelines contained within it represent good human factors engineering practice based upon state-of-the-art research and validated review criteria developed in the nuclear industry as well as in other fields, primarily military and aerospace. The guidelines have been subjected to extensive independent peer review by subject matter experts as part of their development.

When this document was issued as a draft for comment in March 1995, the Commission encouraged comment "from all interested parties, and specifically from facilities licensed under 10 CFR Part 50, with regard to the NRC staff's contention that no backfitting is intended for current licensees with the issuance of this guidance document unless a licensee initiates a voluntary upgrade to its human-system interface." No such comments were received.

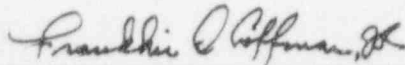
Four sets of written comments were received during the comment period, of which two were essentially identical. One additional set of comments was received after the expiration of the comment period. All comments were considered by the NRC staff in its preparation of the final NUREG. Copies of the submitted comments, together with a copy of the NRC staff's "Response to Public Comments on Draft NUREG-0700, Revision 1" (September 21, 1995), are available for inspection at the Commission's Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. Requests for single copies of NUREGs (which may be reproduced) should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Distribution and Mail Services Section. Telephone requests cannot be accommodated. NUREGs are not copyrighted, and Commission approval is not required to reproduce them.

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs of OMB.

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Dated at Rockville, Maryland, this 30 day of August 1996.

For the Nuclear Regulatory Commission.



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