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The Honorable Lando W. Zech, Jr.  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Chairman Zech:

SUBJECT: NRC'S HUMAN FACTORS PROGRAMS AND INITIATIVES

During the 349th meeting of the Advisory Committee on Reactor Safeguards, May 3-6, 1989, we discussed the draft Commission paper related to the NRC's human factors programs and initiatives. Our Subcommittee on Human Factors discussed this matter with the staff during a meeting held on April 19, 1989. The subcommittee previously discussed draft Revision 1 of the Human Factors Regulatory Research Program Plan with the staff on January 26, 1989. We also had the benefit of the document referenced.

We are pleased that the NRC again is devoting a portion of its research program to human factors issues. The list of topic areas being worked on or planned is extensive. This will require dedicated research program management attention to help ensure that the research progresses in a timely fashion and the results are provided in a form for possible use by the agency.

During the January 26, 1989 meeting of our Human Factors Subcommittee, it concluded that the Human Factors Regulatory Research Program Plan be expanded into a human factors plan for the entire agency, i.e., to include the human factors programs and initiatives of all of the NRC offices. We are pleased to see that the staff has subsequently reached the same conclusion. We believe that the more comprehensive document will be of greater use to the Commission and to the interested individuals. We recommend that the discussion of the other office programs and initiatives be retained in the NUREG document when issued.

We believe that the Office of Nuclear Materials Safety and Safeguards' human factors initiative, addressing material and fuel cycle activities, is a welcome and needed addition to the NRC human factors efforts. Because few human factors considerations have been included in these activities in the past, much effort will be required. It is likely that additional human factors personnel will be needed by NMSS to carry out these activities in an effective manner.

The utilization of a number of diverse institutions and organizations as human factors research providers is commendable. This is particularly noteworthy in the organization and management and in the reliability assessment program elements of the research plan. The use of diverse research providers has already generated new input to, as well as interest in, the human factors research program.

Finally, we have recommended to the staff that a human factors research effort be initiated to develop improved methodology for the selection and training of resident inspectors. These individuals play a significant role

in the regulatory program for operating nuclear power plants. Effective resident inspectors can have an extremely positive impact on nuclear safety through their interfacing role between the NRC and licensees. Conversely, inspectors who are poorly qualified either technically or in their approach to regulation or their interpersonal skills can have a detrimental impact on nuclear plant safety performance. We believe that appropriate human factors research could develop aptitude testing to assist in the selection of resident inspectors and develop training material relating to their work assignments and their relationship to licensee personnel.

We recommend proceeding with the proposed human factors research program and initiatives. We would like to be briefed by the staff on the results of the research and any proposed implementation into the regulatory process at appropriate times.

Sincerely,

Forrest J. Remick  
Chairman

Reference:

Letter dated March 31, 1989 from F. D. Coffman, Jr., Office of Nuclear Regulatory Research to Herman Alderman, ACRS, transmitting the Commission Information Paper on NRC's Human Factors Programs and Initiatives (PREDECISIONAL)

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