

Tom Cox
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AUG 17 1979

MEMORANDUM FOR: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

FROM: Robert B. Minogue, Director
Office of Standards Development

SUBJECT: INSTRUMENTATION TO FOLLOW THE COURSE OF AN ACCIDENT

In a memorandum to you from Commissioner Ahearne dated August 10, 1979, Commissioner Ahearne asked several questions regarding the implementation of Regulatory Guide 1.97 and the revision of Task A-34.

I have prepared a short information sheet on the background of Regulatory Guide 1.97 and the current accelerated effort to develop a revision to the guide which I think is important to provide to Commissioner Ahearne, either included in or appended to your response.

Original signed by:
ROBERT B. MINOGUE

Robert B. Minogue, Director
Office of Standards Development

bcc: R. B. Minogue
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Regulatory Guide 1.97

Background

Development of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident" was begun in July, 1973. The preliminary development was based on the final report (BMI-X-647) from a staff sponsored study at Battelle-Columbus Laboratories. The initial draft of the guide (reviewed by the ACRS Regulatory Activities Subcommittee in closed session on April 10, 1974 and open session on May 8, 1974) contained an extensive list of parameters to be considered for post accident monitoring instrumentation. There were strong objections by those attending the open sessions (which was supported by the ACRS Regulatory Activities Subcommittee) to the specificity which the draft guide contained. Upon considerations of these objections, the guide was rewritten to provide general guidelines for the selection of post accident monitoring instrumentation, leaving the actual selection of the instrumentation to the applicant. After appropriate staff reviews, the guide was re-submitted to the ACRS and was reviewed on December 3, 1974. It was subsequently issued for public comment in December 1975.

There were a large number of public comments received. The resolution of these comments required about 20 months and 5 ACRS open session meetings. The main problems centered around what was called the "openendedness" of the objectives for post accident monitoring and so called "ambiguity" of the requirement. The open-endedness was claimed because no limit was put on the number of accidents for which an analysis should be made. It was the staff's contention that accident monitoring

should be prepared for any eventuality. After several modifications, the guide was finally issued in August 1977 with one additional position (Position C.3, pertaining to the measurement of 4 high-level parameters) which resulted from addressing a specific concern of the ACRS outlined in their letter of 8/17/76.

After Regulatory Guide 1.97 was issued, the applicants were reluctant to implement the guide because they felt more definitive guidance was needed to define acceptable means of compliance. Hence, Task Action Plan A-34 was initiated. The applicants also objected very strongly to the requirement for the high-level measurements.

Current Effort to Revise the Guide

On July 12, 1979, an effort was initiated to revise Regulatory Guide 1.97 which is to include a basic list of parameters to be monitored. The task group has obtained assistance from ANS 4.5 standards task force. An initial meeting was held July 30th through August 2nd at which time a draft of an accident monitoring standard was generated. The draft included a list of about 40 parameters that should be provided with instrumentation to assess plant conditions during an accident and to follow the course of the accident. The list took into account the recommendations of the TMI-2 Lessons Learned Task Force and some recommendations of other staff members, the ACRS, and representatives of the nuclear industry and the public. The next meeting with the ANS 4.5 standards task force is scheduled to begin August 20th and should result in a more complete draft post accident monitoring standard that can be used as a basis for revising Regulatory Guide 1.97. It is a goal to have a draft revision of Regulatory Guide 1.97 completed by the end of September 1979.