

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 12 1979

MEMORANDUM FOR: Robert B. Minogue, Director
Office of Standards Development

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

SUBJECT: INSTRUMENTATION TO ASSESS NUCLEAR POWER PLANT
CONDITIONS DURING AND FOLLOWING AN ACCIDENT

One of the major lessons learned from the Three Mile Island accident is that better information needs to be provided to nuclear power plant operators to enable them to reliably assess what is taking place in the plant during an accident or transient situation so that they are better able to take remedial action. In addition to providing specific recommendations on instrumentation that should be required of licensees in the short term, the TMI Lessons Learned Task Force has strongly recommended that Regulatory Guide 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident, be revised on an expedited basis for early implementation. The purpose of this revision would be to incorporate the instruments already required by the Lessons Learned Task Force plus instruments that are determined to be necessary based on a more in-depth reanalysis of the past history of Regulatory Guide 1.97 in view of the experience of the TMI-2 accident. One important criterion that should guide the revision is the need to implement, as soon as practical, state of the art equipment in operating nuclear power plants to significantly increase the ability to follow the course of an accident. Long term instrument development matters should be deferred for further study pending results from longer term investigations and decisions flowing from TMI. We believe that a minimum set of basic instrumentation to follow an accident should be required of plants now in operation as well as those under construction on an expedited basis as soon as such a list is available.

During a meeting on July 3, 1979, between representatives from my office and your office, a course of action was discussed to accomplish an expeditious review and revision of Regulatory Guide 1.97. In accordance with the discussions during that meeting, I request that SD take the lead in this effort as follows:

a. An in-depth review of instrumentation needed to assess plant conditions during and following an accident should lead to a revision to R.G. 1.97 on an expedited basis; approximately two months to establish revised positions for review by the Regulatory Requirements Review Committee.

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b. Interest in providing assistance in this effort has been expressed by representatives of the national consensus standards committees and the Atomic Industrial Forum. Such assistance should be encouraged.

c. Ed Wenzinger, Chief, Reactor Systems Standards Branch, SD, will be in charge of this effort. In addition, SD will provide an engineer knowledgeable in the area of radiological monitoring.

d. NRR will assign Victor Benaroya of DSS and Leonard Soffer of DSE to assist in this effort.

If there is any problem in carrying out this effort, please let me know.



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

cc: S. Levine
V. Stello
L. Gossick