PDR

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

JUN 29 1979

7/2 Ireland
a) Doc. Control
b) dist to experts
R

MEMORANDUM FOR: Roger J. Mattson, Director
Division of Systems Safety
Office of Nuclear Reactor Regulation

FROM: Jose' N. Reyes, Jr.
Information Security Branch
Division of Security
Office of Administration

Copy to:
Lona
Olshinski
Sudlin
Telford
Chandler
Calvo
Conran
Smith-Cat
PDR

SUBJECT: LESSONS LEARNED FROM THE TMI-2 ACCIDENT

The following suggestions may be of assistance to the Lessons Learned Task Force and other offices within the Nuclear Regulatory Commission for developing constructive changes of our regulatory requirements for nuclear power plants, as well as to increase the responsiveness of the Commission in emergency situations.

Licensing Applications:

1) Develop a data bank on the failure rate of individual plant components having major safety implications, so as to determine an overall "System Safety Reliability Rating" for licensing purposes. Each facility would then be required to achieve a minimum safety reliability rating and maintain that rating throughout the life of the facility.

2) Re-evaluate the redundancy criteria and it's application to the condensate and feedwater systems.

3) Require core instrumentation that will determine exact core conditions (eg. water level) rather than inferring those conditions from instrumentation elsewhere in the system (eg. pressurizer level instrumentation). This should be done while taking into account it's overall affect on pressure vessel integrity.

4) Require that operators control the transfer of containment sump water to the radioactive waste storage system rather than having automatic pump initiation. This should be done while taking into account it's overall affect on the emergency function of the residual heat removal system.

NRC Accident Response Role, Capability and Management:

1) Develop a specially trained Nuclear Regulatory Commission Emergency Response Team to send to the site. This team would work with the plant operators to bring the reactor to a safe, cold-shutdown condition. All site decisions would be made by the Emergency Response Team.

2) Develop a specially trained NRC Information Support Team. This team would interact with plant vendors, architect/engineers, radiation monitoring crews, NRC staff, and utilities to provide all the information required by the NRC Emergency Response Team to function effectively.

3) Develop a specially trained NRC Communications Team. This team would consist of highly trained nuclear engineering and technical media specialists who would interact directly with the Emergency Response Team and the Information Support Team to provide the various government officials and news media correspondents with as much accurate information as possible. Basis for evacuation decisions would be developed by this team and provided to the responsible Federal, State, and Local officials.

It is obvious that these suggestions are not of sufficient detail to be implemented in the immediate future. Extensive studies would be required to evaluate their overall affect on reactor safety and NRC licensing policy. However, it is hoped that these suggestions will be useful in stimulating additional ideas for modifying those areas which have been identified as needing improvement, as a result of the Three Mile Island incident.

Sincerely,

Jose' N. Reyes Jr

Jose' N. Reyes, Jr.
Information Security Branch
Division of Security
Office of Administration

cc: Robert F. Whipp, INFOSEC