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

JUL 18 1978

MEMORANDUM FOR: Lessons Learned Task Force

FROM: John A. Olshinski, Lessons Learned Task Force

SUBJECT: AIF SYSTEMS AND EQUIPMENT DESIGN CRITERIA SUBCOMMITTEE MEETING

On July 13, 1979, I met with the AIF Systems and Equipment Design Criteria Subcommittee. Enclosure 1 lists the subcommittee membership. The subcommittee met on 12 and 13 July 1979 to discuss the various topics listed in Enclosure 2. Subcommittee member responsibilities for each topic are also listed in Enclosure 2.

I discussed various Lessons Learned work or recommendations that impacted these topics. In addition, I indicated the proposed schedule of publishing NUREG-0578 (TMI-2 Lessons Learned Task Force Status Report and Short Term Recommendations).

Particular suggestions or recommendations that were made by the subcommittee included:

1. Considerations of possible negative impacts of containment inerting because of restricted access to equipment and possible negative health effects on plant personnel.

2. Evaluation of the use of stainless steal cladding as a preventative measure in limiting combustible gas generation vice the use of inerting of containments as a mitigation measure.

3. Consideration of evaluation of balance-of-plant items because of their impact on the initiation and mitigation of events as well as their impact on operator actions necessitated because of balance-of-plant initiated events.

4. Consideration of discussions with Naval Reactors concerning their quality control and system classification requirements when evaluating adequacy of current safety grade vs. non-safety grade classification of systems and components.

Additional discussion was held concerning analysis of core uncovery symptoms and the necessity for reactor vessel level detection instrumentation.

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JUL 18 1978

The subcommittee presently intends to make recommendations on their assigned areas by mid-October.

I encouraged the subcommittee to maintain contact with the Lessons Learned Task Force. I also encourage members of Lessons Learned to maintain contact with the subcommittee through Fred Stetson(AIF). The subcommittee work in review of systems and design criteria can provide an expanded informational base to the Lessons Learned Task Force in the evaluation of these areas.

John A. Olshinski
Lessons Learned Task Force

cc: F. Stetson (AIF)
PDR

ENCLOSURE 1

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Owners Groups Liaisons

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W:

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Enclosure 1

ENCLOSURE 2

Containment Isolation (Frank Hutchinson)

Backfit diverse actuation required by SRP 6.2.4.
Rethink essential and non-essential systems.
Loss of component cooling water to RCP motor bearings.
Loss of component water to RCP seals.
Criteria for actuation.
Criteria for systems isolated.
Ability to pump back gases and liquids to containment.

Emergency Power Supplies (John MacAdoo)

Pressurizer Heaters (i.e. need to maintain hotleg subcooling with loss of offsite power or use of an alternate pressure source e.g. inert gas, air compressor, or controllable head pump).
PORV and block valves.
Pressurizer level indicator.
Reactor coolant pumps (e.g. pony motors or reduced voltage/frequency - capability of pump to accommodate low speed operation).
Reliability of AC/DC power supplies - onsite and offsite.

Adequate Core Cooling (Don Roy)

Instrumentation and detection of inadequate core cooling.
RHR design basis and adequacy; access capability and equipment locations.
Increase letdown cooler capacity.
Prevention through design of degraded cooling.
  core cooling systems
  containment systems
  radwaste and effluent systems
Analysis of core uncovery symptoms.
Reactor vessel level detection.

Post Accident Hydrogen Control (Roy Dunham)

Provide reliable and dedicated penetrations for purge and recombiner systems.
Inert all mark I and II containments. (Vermont Yankee and Hatch).
Provide capability to use recombiners at all plants.
Filtered, vented containments on PWR's.

Instruments to Follow Accident (Ken Swarts)

Improve post-accident sampling.
Increase range of effluent monitors.
Provide hi-range containment monitor.
Improve in-plant and effluent iodine measurement.
Reg. Guide 1.97 Rev. 1 August, 1977 - implementation.

Safety and Process System Design Classifications (Bob Spilker)

Reliability.
Environmental qualification.
Power supply.
Establishment of a class 2E and 3E designation.

Miscellaneous (NSSS) (Ed Scherer)

Low temperature overpressure protection.
Reactor coolant system venting.

Miscellaneous (BOP) (Steve Milioti)

Auxiliary building ventilation and filtration.
Radiation control for systems outside containment.
Perform leak test and provide tech specs for safety and process systems.
Perform shielding review for safety and process systems.