

ENCLOSURE 1

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

January 5, 1980

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Hendrie
Commissioner Bradford

FROM: Lee V. Gossick
Executive Director for Operations

SUBJECT: TMI ACTION PLAN -- PREREQUISITES FOR RESUMPTION OF LICENSING

In response to the Secretary's memorandum of December 28 and the guidance of the Commission at the meeting on December 21, the TMI Action Plan Steering Group has developed a proposed definition of the actions that would be required to be taken before reactor licensing could be resumed. This memorandum provides that proposed definition and reports on an important initial step in that effort -- the identification of the specific licensing requirements for the near-term operating license applications. This memorandum and its attached list of near-term OL requirements were presented to and discussed with the Directors of NRR, IE, RES, and SD on January 4, and they have concurred. The Executive Legal Director has no legal objections.

The licensing pause has been described previously, but not in the detail now needed. It was broadly defined by the Commission in its November 9, 1979 letter to Dr. Press in the Executive Office of the President. In providing its analysis and views of the recommendations of the President's Commission, the NRC said in that letter, in part,

"NRC has decided that new plants will not be licensed until the required criteria have been developed. This approach assures that the NRC staff can give the necessary attention to implementation of the changes on operating plants.

NRC plans to proceed systematically in the following manner: (1) review and correlate the recommendations of the President's Commission, those of internal lessons learned groups, those of the Advisory Committee on Reactor Safeguards, the findings of NRC Special Inquiry (when available), the findings of ongoing Congressional investigations (when available), and other inputs; (2) transform the recommendations in each subject area into a statement of goals (i.e. define the new or improved safety objectives to be accomplished in each area); (3) develop task action plans to transform the goals into organizational and procedural changes as they apply to NRC,

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or into regulatory requirements as they apply to licensees; (4) initiate implementation of the new regulatory requirements on operating plants; and (5) initiate implementation of the new regulatory requirements on plants under construction."

The "action plans" called for in the November 9 letter have now come to be known as the draft TMI Action Plan (NUREG-0660). The desired format and content of the action plan in the context of the Commission's licensing pause were described in Commissioner Hendrie's memorandum of November 16, as "...essentially a matrix formed by listing the points in the November 9th paper, plus any other actions we think necessary, along one axis and the various classes of cases along the other axis." Table 1 of NUREG-0660 is the matrix of licensing and other actions developed by the staff in response to this guidance from the Commission.

The Action Plan contains what the staff presently believes constitutes the complete set of additional requirements and programs for NRC, for operating reactors, for operating license applicants, for reactors under construction, and for construction permit applicants. In its totality, the Action Plan will identify all actions considered to be necessary as a result of the accident at TMI. Some will be required to be finished before the resumption of licensing. Others may be required to be undertaken before resumption of licensing. Still other, longer term actions may not be undertaken until well after licensing has been resumed. Adoption of the Plan describing all of these actions by the NRC would constitute "getting its house in order." We do not believe that the isolated approval of any particular subset of action items -- for example, the licensing requirements that are applicable to near-term operating licenses -- is a sufficient condition to justify the resumption of licensing.

We believe that Commission consideration and approval of the Action Plan in its entirety is a necessary action. Approval of the plan would mean Commission endorsement that the total program defined in the Plan constitutes the sufficient measures to be undertaken to permit resumption of licensing. This is important and necessary guidance for licensees, license applicants, the staff, and the hearing boards. In this connection, the form of the Commission approval of the Plan is an important subject that needs further consideration. Some preliminary thoughts by ELD on this subject are attached.

There are several deficiencies in the present draft that render it inadequate for approval at this time. First, it is incomplete. Recognizing that the NRC Special Inquiry report may contain additional requirements not presently identified in the draft Action Plan and that there is staff review of the plan still ongoing, we are not recommending approval of the existing draft Action Plan. Second, the plan as presently drafted is a mixture of policy objectives, program descriptions, and specific licensing criteria. Some of this material is at a level of detail that is too specific for Commission approval (i.e., it is at a level of detail more appropriate for staff action and interpretation). We anticipate furnishing to the Commission another draft of the plan within about a month of issuance of the NRC Special Inquiry Report. It is our intent that

it will correct these sorts of deficiencies. In addition, at that time, we expect to furnish an analysis of the resource and programmatic implications of the Plan, including the identification of necessary reprogramming, future budget requirements, and effect on present programs.

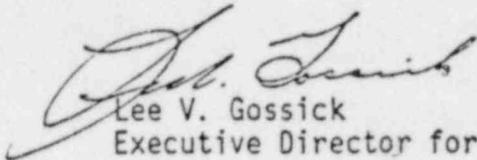
We recognize that there are many action items in the present draft of the Plan that require clearer description, fuller explanation of need, development of detailed criteria, consideration of alternative approaches, and the like, before final decisions on them could be expected. We plan, for the next draft, to identify each of those actions and a proposed schedule and method for obtaining Commission approval. We propose that those approvals can be granted external to or subsequent to Commission approval of the Action Plan itself. Approval of the Plan will simply mean, in these areas, that the Commission agrees in principal with the indicated action but intends to treat them separately and on specific schedules and according to methods or procedures outlined in the Plan. The balance of the action items in the Plan will be sufficiently well-described that Commission approval of the overall Plan will constitute specific approval of those items. Examples of the sort of detailed requirements that can be decided by Commission approval of the overall Plan are the specific near-term operating license requirements described below.

There are several subsets of requirements that could be extracted from the Plan for separate consideration and decision by the Commission. Consistent with our understanding of the Commission's request at the December 21 meeting, we have extracted those actions that are uniquely applicable to near-term operating licenses. We have defined "near-term operating licenses" as those that would be issued before July 1980. A longer time period would add, subtract, or modify requirements. It is necessary to establish such a temporal definition because the subset of actions required to be accomplished by applicants before obtaining an OL differs depending on that definition. The set of requirements for near-term OL applicants according to a July 1980 definition is attached as Enclosure 1.

A similar listing of requirements could be extracted for other classes of activities, such as the set of short-term lessons learned already applied to operating reactors, the additional requirements for operating reactors beyond the short-term lessons learned, the actions required to be taken by holders of construction permits, and the internal actions required to be taken by the NRC that would define "putting our house in order." It is our intent that an improved Table 1 in the next draft of NUREG-0660 will more clearly identify such subgroupings of all the actions contained in the Plan.

Besides the information discussed above, the Steering Group will be prepared at its meeting with the Commission on January 9 to discuss the status of ongoing work to revise the action plan generally, to identify the method being used to identify resource reprogramming candidates in the current NRC operating plan

and budget submissions, and to propose a method for obtaining feedback and ideas from reactor operators and others involved in the implementation of the TMI-related requirements.


Lee V. Gossick
Executive Director for Operations

Enclosures:

1. Near-Term Operating License Requirements
2. ELD Comments on Form of Commission Approval

cc: Office Directors
Steering Group Members
Task Managers

TMI ACTION PLAN
NEAR-TERM OPERATING LICENSE REQUIREMENTS

<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable*</u>
I.A.1.1 <u>Shift Technical Advisor</u> Provide technical advisors with engineering expertise on each shift.	Yes	FL
I.A.1.2 <u>Shift Supervisor Duties</u> Minimize administrative duties.	Yes	FL
I.A.1.3 <u>Shift Manning</u>		
(1) SRO and RO in control room.	No	FL
(2) Administrative aide to shift supervisor on each shift.	No	FL
(3) Restrictions on use of overtime.	No	FL
I.B.1.1 <u>Organization and Management Criteria</u> Interoffice NRC review of licensee management to determine organizational and managerial capabilities, pending development of criteria.	No	FL

*FL = before fuel load
 FP = before full power

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<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
I.B.3.1 <u>Safety Engineering Group</u> Licensee provide onsite safety engineering group to provide supplemental engineering review and support. Interoffice NRC review of the adequacy of this group, pending development of formal criteria.	No	FL
I.B.3.4 <u>Resident Inspector</u> NRC resident inspector at each site for new OL.	No	FL
I.C.1(1) <u>Analysis and Procedure Modifications</u> (1) Phase I - small break LOCA's.	Yes	FL
(2) Phase II - inadequate core cooling.	Yes	FL
I.C.1(2) <u>Shift Relief and Turnover Procedures</u> Plant procedures for shift and relief turnover.	Yes	FL
I.C.1(3) <u>Shift Personnel Responsibilities</u> Plant procedures specifying responsibilities of shift personnel for safe operation of the plant.	Yes	FL

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<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
I.C.1(4) <u>Control Room Access</u> Plant procedures for limiting access to the control room.	Yes	FL
I.C.2 <u>Vendor Review of Procedures</u> NSSS vendor review of licensee emergency procedures, low power test procedures, and power ascension procedures.	No	FP
I.C.3 <u>Pilot Program for Review of Selected Emergency Procedures</u> NRC conduct in-depth review of development and use of selected emergency procedures on NTOL plants.	No	FP
I.E.1 <u>Licensee Operating Experience Evaluation Capability</u> Onsite and offsite capability for evaluation of operating experiences at nuclear power plants.	Partial	FL
I.E.2 <u>Licensee Dissemination of Operating Experiences</u> Procedures that assure feedback of operating experiences to operators and other personnel.	No	FL

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<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
I.G <u>Training During Low Power Testing</u> Conduct "hands on" training in selected plant evolutions and off-normal events for shift personnel.	No	FP
II.B.1 <u>Degraded Core - Primary System Vent</u> Provide design of remotely operable high-point reactor coolant system vents.	Yes	FP
II.B.2 <u>Degraded Core - Shielding</u> Provide design of additional shielding required to provide access to vital areas and protect safety equipment.	Yes	FP
II.B.3 <u>Degraded Core - Sampling</u> Provide interim procedures and final system design for sampling and analyzing reactor coolant and containment atmosphere.	Yes	FP
II.B.4 <u>Degraded Core - Training</u> (1) Establish training program for all operating personnel in the mitigation of severe core damage using existing equipment.	No	FL
(2) Complete initial training.	No	FP

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Attachment 1

<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
II.B.8 <u>Degraded Core - Rulemaking</u> Issue notice of intent to conduct rulemaking on requirements for design features for accidents involving severely damaged cores.	No	FP
10 (New) II.B.8 <u>Interim Hydrogen Control Requirements for Small Containments</u> Under development.	No	FP
II.C.1.1 <u>Mini-IREP</u>	No	FP
II.C.1.8 <u>Reliability Assurance</u> Establish a reliability assurance program for engineered safety features systems.	No	FP
2 II.D.1.1 <u>Relief and Safety Valve Test</u> Commit to performance testing of RCS relief and safety valves under the full range of normal and accident conditions by July 1981.	Yes	FL
(New) II.D.1.5 <u>Relief and Safety Valve Position</u> Install direct indication of relief and safety valve position.	Yes	FL

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<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
II.E.1 ¹ <u>Auxiliary Feedwater System Reliability</u> Perform simplified reliability analysis of AFW system and modify as necessary.	No	FP
II.E.1.3 ^{new} <u>Auxiliary Feedwater Initiation</u> Install safety grade automatic start of AFW and safety grade flow indicators.	Yes	FP
II.E.3 ¹ <u>Emergency Power for Decay Heat Removal</u> Install capability to supply some pressurizer heaters and controls from emergency power supply and implement necessary training and procedures.	Yes	FP
II.E.4.1 <u>Containment Penetrations</u> Provide design of redundant dedicated containment penetrations for external hydrogen recombiner, if applicable.	Yes	FL
II.E.4.3 <u>Containment Isolation</u> Install diverse containment isolation signal.	Yes	FP
II.E.4.5 <u>Containment Purge</u> Restrict containment purge operation and demonstrate purge valve operability.	Yes	1938 226 FP

<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
<u>II.F.2 Inadequate Core Cooling Instruments</u>		
(1) Install subcooling meter.	Yes	FL
(2) Submit design of vessel level indicator.	Yes	FL
<u>II.G Emergency Power for Pressurizer Equipment</u>		
Modify power supplies for the pressurizer relief valves, block valves, and level indicators to be from emergency power sources.	Yes	FL
<u>III.A.1.1 Role of NRC</u>		
More detailed definition of role of NRC in emergencies than presently contained in Action Plan.	No	FP
<u>III.A.1.5 Communications</u>		
Install two direct dedicated telephone lines between plant and NRC.	Yes	FL
<u>III.A.2.1 Technical Support Center</u>		
Establish initial onsite TSC and provide plans, procedures, staffing, communications, and radiation monitoring equipment. (Upgrade on same schedule as present OR's.)	Yes	FL

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<u>Requirement</u>	<u>Already Approved</u>	<u>When Applicable</u>
<p>III.A.2.2 <u>Onsite Operational Support Center</u> Establish an OCS as described in the 10/30/79 letter to licensees. (Upgrade on same schedule as present OR's.)</p>	Yes	FL
<p>III.A.2.3 <u>Near-Site Emergency Operations Center</u> Establish an EOC as a base for coordinating onsite and offsite activities and interface with State, local, and Federal agencies. (Upgrade on same schedule as present OR's.)</p>	Yes	FL
<p>III.A.3 <u>Upgrade Licensee Emergency Preparedness</u> Upgrade emergency plans in accordance with Regulatory Guide 1.101 and NUREG-0610.</p>	Yes	FL
<p>III.B.3.2 <u>FEMA-NRC Concurrence in State and Local RERP</u> Concurrence must be obtained.</p>	Yes	FL
<p>III.D.1.3.a <u>Area Radiation Monitors (Partial)</u> Provide instrumentation to determine in-plant airborne radioiodine concentrations.</p>	Yes	FL

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Requirement

Already Approved

When Applicable

III.D.2.1 Control Room Habitability

Confirm compliance with existing regulatory requirements or establish schedule for necessary modifications to achieve compliance.

No

FP

III.D.2.2.b Evaluation of Secondary Side Hazards

Evaluate secondary side leakage and radiological hazards which could result from major accident, and make modifications to reduce hazards.

Yes

FP

III.D.2.2.c Improve Auxiliary Building

Identify improvements to control radioactive leakage from auxiliary buildings, including requirements for building exhaust filtration where it doesn't already exist, and provide schedule for modifications.

No

FP

III.E.1.1 Improved Vent Gas Systems

Review vent gas and leak detection systems against new design criteria and provide schedule for modifications.

No

FP

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Requirement

Already Approved

When Applicable

III.E.1.2.a Surveillance Testing (Filtration
Systems) (Partial)

Implement surveillance testing program for
non-ESF filtration systems.

No

FP

III.E.2.1.b NRC Monitoring

NRC establish TLD surveillance network around
site.

Yes

FL

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