November 1, 1983

TO ALL BOILING WATER REACTOR LICENSEES

Gentlemen:

Subject: NUREG-0737 TECHNICAL SPECIFICATIONS (Generic Letter No. 83-36)

NUREG-0737, "Clarification of TMI Action Plan Requirements," identifies those items for which Technical Specifications are required. Technical Specifications are required to provide assurance that facility operation is maintained within the limits determined acceptable following implementation at each facility. The scope and type of specification should include appropriate actions if limiting conditions for operation cannot be met. Relevant surveillance requirements for installed equipment should also be included.

The guidance on Technical Specifications provided in Generic Letter 83-02 covered NUREG-0737 items which were scheduled for implementation by December 31, 1981.

A number of NUREG-0737 items which require Technical Specifications were scheduled for implementation after December 31, 1981. Each of those items is presented in either Enclosure 1 or Enclosure 2. Included in the enclosure 1 is guidance on the scope of Technical Specifications which the staff would find acceptable. Enclosure 2 presents a discussion on items which do not require a response at this time. Enclosure 3 contains samples in Standard Technical Specification format with blanks or parentheses appearing where the information is plant specific. It includes appropriate pages as background information for facilities that do not have Standard Technical Specifications. These samples are for your information only.

We solicited comments on proposed Technical Specifications from the boiling water reactor owners group and Atomic Industrial Forum. Appropriate comments have been incorporated. We request that you review your facility's Technical Specifications to determine if they are consistent with the guidance provided in Enclosure 1. For those items where you identify deviations or absence of a specification we request that you submit an application for a license amendment. The Bases Section should be revised, as appropriate, to reflect the changes made in Technical Specifications. If some of the items are not yet implemented at your facility, you should submit an amendment request at the time they are implemented.

It is recommended that licensees respond within 90 days of receipt of this letter. However, it is recognized that some licensees may find this schedule to be stringent considering other activities planned at their facility as well as availability of the manpower. These licensees are encouraged to establish a realistic schedule for submittal of response to this letter by negotiating with the individual Project Manager assigned to their facility.

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This request for information was approved by the Office of Management and Budget under clearance number 3150-0065 which expires September 30, 1985.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures: See Packet
As Stated

Licensee's Service Lists:
See next page

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ENCLOSURE 1

STAFF GUIDANCE ON TECHNICAL SPECIFICATIONS FOR NUREG-0737
ITEMS SCHEDULED AFTER DECEMBER 31, 1981

(1) Reactor Coolant System Vents (II.B.1)

The staff has determined that no changes in Technical Specifications are required by this Action Plan item for Boiling Water Reactors (BWRs) which do not have isolation condenser. The staff has also concluded that no changes in Technical Speciofications are required for those plants which have isolation condenser, and either a turbine driven high pressure injection system or a feedwater coolant injection system with an auxiliary power source such as a gas turbine.

Those BWRs with isolation condenser, and no high pressure injection other than normal feedwater or the control rod drive system must have isolation condenser vents which satisfy the requirements of Item II.B.1 of NUREG-0737. These plants should have at least one reactor coolant system vent path (consisting of at least two valves which are powered from emergency buses) operable and closed at all times (except for cold shutdown and refueling) at isolation condenser high points. A typical Technical Specification for reactor coolant system vents is provided in Enclosure 3.

(2) Postaccident Sampling (II.B.3)

Licensees should ensure that their plant has the capability to obtain and analyze reactor coolant and containment atmosphere samples under accident conditions. An administrative program should be established, implemented and maintained to ensure this capability. The program should include:

a) training of personnel
b) procedures for sampling and analysis, and
c) provisions for maintenance of sampling and analysis equipment

It is acceptable to the Staff, if the licensee elects to reference this program in the administrative controls section of the Technical Specifications and include a detailed description of the program in the plant operation manuals. A copy of the program should be readily available to the operating staff during accident and transient conditions.

(3) Noble Gas Effluent Monitors (II.F.1.1)

Noble Gas effluent monitors provide information, during and following an accident, which are considered helpful to the operator in accessing the plant condition. It is desired that these monitors be operable at all times during plant operation, but they are not required for safe shutdown of the plant. In case of failure of the monitor, appropriate actions should be taken to restore its operational capability in a reasonable period of time. Considering the importance of the availability of the equipment and possible delays involved in administrative controls, 7 days

is considered to be the appropriate time period to restore the operability of the monitor. An alternate method for monitoring the effluent should be initiated as soon as practical, but no later than 72 hours after the identification of the failure of the monitor. If the monitor is not restored to operable condition within 7 days after the failure, a special report should be submitted to the NRC within 14 days following the event, outlining the cause of inoperability, actions taken and the planned schedule for restoring the system to operable status.

(4) Sampling and Analysis of Plant Effluents (II.F.1.2)

Each operating nuclear power reactor should have the capability to collect and analyze or measure representative samples of radioactive iodines and particulates in plant gaseous effluents during and following an accident. An administrative program should be established, implemented and maintained to ensure this capability. The program should include:

a) training of personnel
b) procedures for sampling and analysis, and
c) provisions for maintenance of sampling and analysis equipment

It is acceptable to the staff, if the licensee elects to reference this program in the administrative controls section of the Technical Specifications and include detailed description of the program in the plant operation manuals. A copy of the program should be readily available to the operating staff during accident and transient conditions.

(5) Containment High-Range Radiation Monitor (II.F.1.3)

A minimum of two in containment radiation-level monitors with a maximum range of 10^8 rad/hr (10^7 r/hr for photon only) should be operable at all times except for cold shutdown and refueling outages. In case of failure of the monitor, appropriate actions should be taken to restore its operational capability as soon as possible. If the monitor is not restored to operable condition within 7 days after the failure, a special report should be submitted to the NRC within 14 days following the event, outlining the cause of inoperability, actions taken and the planned schedule for restoring the equipment to operable status.

Typical surveillance requirements are presented in Enclosure 3. The setpoint for the high radiation level alarm should be determined such that spurious alarms will be precluded. Note that the acceptable calibration techniques for these monitors are discussed in NUREG-0737.

(6) Containment Pressure Monitor (II.F.1.4)

Containment pressure should be continuously indicated in the control room of each operating reactor during Power Operation and Startup Modes. Two channels should be operable at all times when the reactor is operating in any of the above mentioned modes. Technical Specifications for these monitors should be included with other accident monitoring instrumentation in the present Technical Specifications. Limiting conditions for operation (LCO) for the containment pressure monitor should be similar to other accident monitoring instrumentation included in the present Technical Specifications. Typical acceptable LCO and surveillance requirements for accident monitoring instrumentation are included in Enclosure 3.

(7) Containment Water Level Monitor (II.F.1.5)

A continuous indication of suppression pool water level should be provided in the control room of each reactor during Power Operation and Startup Modes. Two channels should be operable at all times when the reactor is operating in any of the above mentioned modes. Technical Specifications for suppression pool water level monitors should be included with other accident monitoring instrumentation in the present Technical Specifications. Limiting conditions for operation (LCO) for these monitors should be similar to other accident monitoring instrumentation included in the present Technical Specifications. Typical acceptable LCO and surveillance requirements for accident monitoring instrumentation are included in Enclosure 3.

The BWRs with dry containment should have at least two channels for wide range instruments and one channel of narrow range instrument operable at all times during above mentioned modes. LCOs for wide range monitors should be similar to that discussed above. LCOs for narrow range monitor should include the requirement that the inoperable channel will be restored to operable status within 30 days or the reactor will be brought to hot shutdown condition as required by other accident monitoring instrumentation.

(8) Containment Hydrogen Monitor (II.F.1.6)

Two independent containment hydrogen monitors should be operable (should be capable of performing the required function) at all times when the reactor is operating in Power Operation and Startup Modes. Technical Specifications for hydrogen monitors should be included with other accident monitoring instrumentation in the present Technical Specification. Typical acceptable LCO and surveillance requirements are included in Enclosure 3.

(9) Control Room Habitability Requirements (II.D.3.4)

Licensees should assure that control room operators will be adequately protected against the effects of the accidental release of toxic and/or radioactive gases and that the nuclear power plant can be safely operated or shut down under design basis accident conditions. If the results of the analyses of postulated accidental release of toxic gases (at or near the plant) indicated a need for installing the toxic gas detection system, it should be included in the Technical Specifications. Typical acceptable LCO and surveillance requirements for such a detection system (e.g. chlorine detection system) are provided in Enclosure 3. All detection systems should be included in the Technical Specifications.

In addition to the above requirements, other aspects of the control room habitability requirements should be included in the Technical Specifications for control room emergency air filtration system. Two independent control room emergency air filtration system should be operable continuously during all modes of plant operation and capable of meeting design requirements. Sample Technical Specifications are provided in Enclosure 3.

ENCLOSURE 2

DISCUSSION OF NUREG-0737 ITEMS SCHEDULED AFTER

DECEMBER 31, 1981, WHICH DO NOT REQUIRE THE RESPONSE

(1) Minimum Shift Crew (I.A.1.3.2)

The requirements of this Action Plan item are superceded by a recent rule concerning staffing of licensed operators at Nuclear Power Plants. The effective date of this rule is January 1, 1984. The rule was promulgated on July 11, 1983.

(2) Instrumentation for Detection of Inadequate Core Cooling (II.F.2)

The BWR Owners' group has proposed some modifications in existing instrumentation to satisfy the requirements of this Action Plan Item. The staff is currently evaluating various options to modify existing instrumentation in boiling water reactors. Changes in Technical Specifications will be determined after the evaluation is completed. No response is required at this time.

(3) Isolation of Isolation Condensers on High Radiation (II.K.3.14)

This Action Plan item is applicable to only seven boiling water reactors. Licensees of all seven plants have submitted the responses on this item and the staff has determined that no changes are required in the present design. No changes in Technical Specifications are needed.

(4) Reduction of Challenges and Failures of Relief Valves (II.K.3.16)

The staff has reviewed the information submitted by the BWR Owners' group in response to Item II.K.3.16, and identified acceptable modifications which will reduce safety/relief valve challenges and failures. One of these modifications involves the design of Low-Low Set (LLS) Relief Logic System. This system may require changes in the Technical Specifications. However, for the BWRs with Mark I containment, the Technical Specifications changes will be reviewed as part of the Mark I containment modifications review. For BWRs, with mark II containment the need for changing the Technical Specifications will be determined on a case by case basis. Some licensees may decide to change the water level setpoint for the closures of main steam isolation valves (MSIVs) as a part of the implementation of this item. This will require the changes in the Technical Specifications. These changes will be reviewed on a case by case basis. No other changes are required.

(5) Emergency Core-Cooling Systems (ECCS) Outage (II.K.3.17)

The staff has completed the review of ECCS outage data provided by the licensees, and determined that no changes in Technical Specifications are required at this time. No response is required.

(6) Automatic Depressurization System Logic Modification (II.K.3.18)

Licensees are required to perform a feasibility and risk assessment study to determine the optimum approach for modifying automatic depressurization system (ADS) actuation logic to eliminate the need for manual actuation to assure adequate core cooling. The BWR Owners' group has submitted an evaluation to the staff. The staff has identified the acceptable options for modifications of ADS logic. Each licensee was requested to select appropriate modifications approved by the staff. Technical Specifications changes resulting from the modifications will be reviewed on a case by case basis.

(7) Adequacy of Space Cooling for High-Pressure Coolant Injection and Reactor Core Isolation Cooling Systems (II.K.3.24)

The staff has reviewed the responses from all licensees for this Action Plan item and concluded that space cooling system for high pressure coolant injection (HPCI) and Reactor Core Cooling Isolation (RCIC) systems is powered from diesel generators in case of loss of offsite power. As the space cooling system is considered to be a supporting system for HPCI and RCIC systems, the operability requirements of this system should be already included in the Technical Specifications for HPCI and RCIC. No further changes are required.

(8) Qualification of Accumulators on Automatic Depressurization System Valves (II.K.3.28)

The staff is currently reviewing information provided by the licensees. Changes in the Technical Specifications will be determined after our review is completed. No response is required at this time.

(9) Compliance with 10 CFR Part 50.46 (II.K.3.31)

This Action Plan item requires licensees to submit plant specific calculations to show compliance with 10 CFR Part 50.46, if changes have been made in the small break loss of coolant accident (LOCA) evaluation model to show compliance with 10 CFR Part 50, Appendix K (Item II.K.3.30). The staff has reviewed the generic response submitted by General Electric in response to Item II.K.3.30. Pending formal documentation of the staff review, it is anticipated that no changes in the Technical Specifications will be required by this Action Plan item.

(10) Evaluation of Anticipated Transients with Single Failure (II.K.3.44)

The staff has completed the review of the evaluation submitted by the BWR Owners' group and determined that no changes are required in the design. No changes in Technical Specifications are required.

(11) The Upgrade of Emergency Support Facility (III.A.1.2)

Meteorological Data (III.A.2.2)

These two items are covered under supplement 1 to NUREG-0737. "Requirements for Emergency Response Capability" (Generic Letter 82-33). No response is required at this time.