



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

ACTION: Stello

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April 22, 1981

Cys: Dircks
Cornell
Rehm
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Denton
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MEMORANDUM FOR: William J. Dircks, Executive Director
for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-81-188 - EMERGENCY PREPAREDNESS

This is to advise you that the Commission (with all Commissioners approving) has approved the changes to page 2-11 of NUREG-0737 as provided in Enclosure 3 of the subject paper.

The Office of Inspection and Enforcement was informed of this action by telephone on April 22, 1981.

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cc: Chairman Hendrie
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne
Commission Staff Offices
Director, Inspection and Enforcement

CONTACT:
E. W. McGregor (SECY)
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IE(5)

March 20, 1981

SECY-81-188



POLICY ISSUE
(Notation Vote)

For: The Commissioners
From: William J. Dircks
Executive Director for Operations
Subject: EMERGENCY PREPAREDNESS

Background: NUREG-0694, "TMI-Related Requirements for New Operating Licenses," stated that prior to fuel loading it was necessary to comply with the then effective Appendix E to 10 CFR Part 50, "Emergency Plans for Production and Utilization Facilities," Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," and for offsite plans to meet the essential elements of NUREG-75/111 or have a favorable finding from FEMA. The submission and evaluation of emergency plans against the standards of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," was required prior to the issuance of a full power license. Copies of the appropriate pages from NUREG-0694 are attached as background information in Enclosure 1.

When NUREG-0737, "Clarification of TMI Action Plan Requirements," was being written, the timing for evaluation of offsite plans as set forth in NUREG-0654 was inadvertently changed to include those licensees requesting permission to conduct only fuel loading or low power testing. These changes appeared as entries on page 2-11 of a table to NUREG-0737 (Enclosure 2) as background information.

Discussion: 10 CFR § 50.47 became effective on November 3, 1980, and required compliance with emergency planning and preparedness standards prior to the issuance of operating licenses, including those authorizing fuel loading and low power testing. § 50.47(c) nevertheless provides a flexible approach for assessing the necessary

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degree of compliance, with the result that licensees requesting low power testing and fuel loading operating licenses can receive such licenses without having to meet every individual factor set forth in § 50.47, at least at that level of operation, provided that FEMA's findings support that approach. As discussed with the Commission prior to the issuance of NUREG-0694, it is unnecessary to require extensive offsite emergency capability at nuclear power plants where the licensee is performing either initial fuel loading or operating initially at low power levels because of the low potential for significant offsite releases.

In a parallel manner, 10 CFR § 50.57(c), governing adjudicatory hearings for the issuance of operating licenses, is specifically framed in terms of requiring Board findings only on those matters significant for the activity to be authorized. Thus, § 50.57(c) provides a basis for making a distinction between the Licensing Board findings necessary for issuance of full power operating licenses and those necessary for issuance of operating licenses authorizing low power testing or fuel loading.

A literal interpretation of the table in NUREG-0737 (Enclosure 2) could lead to a conclusion that the Commission intended to disregard the flexible, case-by-case approach expressly provided for in §§ 50.47(c) and 50.57(c), and to require that licensees comply with every facet of emergency planning contained in § 50.47 as prerequisite to the issuance of every operating license, even those where the activity sought to be authorized is fuel loading or low power testing. The staff did not intend, nor does it believe that the Commission intended, to interpret the table appearing in NUREG-0737 with respect to the effectiveness of 10 CFR § 50.47 so literally as to eliminate the flexibility provided by 10 CFR §§ 50.47(c) and 50.57(c). Consequently, the staff proposes that the Commission approve the suggested changes to the table in NUREG-0737 (Enclosure 2) to clarify the differences between the emergency planning requirements contained in 10 CFR § 50.47 that must be met prior to full power authorizations versus those prerequisite for operating license authorizations only for fuel loading or low power testing.

The Commissioners

- 3 -

Enclosure 2 contains page 2-11 as it appears in NUREG-0737 marked with the staff's recommended conforming changes. Enclosure 3 is the same page retyped as it would be issued. The staff believes it is important to issue this change promptly to serve as the basis for consideration of low power applications now in the hearing process.

Recommendation:

That the Commission approve the changes to page 2-11 of NUREG-0737 as provided in Enclosure 3.



William J. Dircks
Executive Director for Operations

Enclosures:

1. NUREG-0694 Pages-Background Information
2. NUREG-0737 Marked Page 2-11
3. NUREG-0737 Final Page 2-11

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Monday, April 6, 1981.

Commission Staff Office comments, if any, should be submitted to the Commissioners "LT" March 30, 1981, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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Exhibit B

Page 6 of 11

II.K.3 FINAL RECOMMENDATIONS OF B&O TASK FORCE*

- C.3.9** For Westinghouse-designed reactors, modify the pressure integral derivative controller, if installed on the PORV, to eliminate spurious openings of the PORV.
- C.3.10 For Westinghouse-designed reactors, if the anticipatory reactor trip upon turbine trip is to be modified to be bypassed at power levels less than 50 percent, rather than below 10 percent as in current designs, demonstrate that the probability of a small-break LOCA resulting from a stuck-open PORV is not significantly changed by this modification.
- C.3.11 Demonstrate that the PORV installed in the plant has a failure rate equivalent to or less than the valves for which there is an operating history.
- C.3.12 For Westinghouse-designed reactors, confirm that there is an anticipatory reactor trip on turbine trip.

These requirements shall be met before fuel loading.

III.A.1.1 UPGRADE EMERGENCY PREPAREDNESS

Comply with Appendix E, "Emergency Facilities," to 10 CFR Part 50, Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," and for the offsite plans, meet essential elements of NUREG-75/111 (Ref. 28) or have a favorable finding from FEMA.

*The B&O recommendations were not specifically delineated as to fuel-loading or full-power requirements prior to the review of Sequoyah, North Anna 2, and Salem 2. The NRR staff is presently confirming compliance with these four items for these plants.

**Table C.3 of the Action Plan lists the requirements derived from final recommendations of the B&O Task Force.

[This requirement shall be met before fuel loading.

III.A.1.2 UPGRADE EMERGENCY SUPPORT FACILITIES

Establish an interim onsite technical support center separate from, but close to, the control room for engineering and management support of reactor operations during an accident. The center shall be large enough for the necessary utility personnel and five NRC personnel, have direct display or callup of plant parameters, and dedicated communications with the control room, the emergency operations center, and the NRC. Provide a description of the permanent technical support center.

Establish an onsite operational support center, separate from but with communications to the control room for use by operations support personnel during an accident.

Designate a near-site emergency operations facility with communications with the plant to provide evaluation of radiation releases and coordination of all onsite and offsite activities during an accident.

These requirements shall be met before fuel loading. See NUREG-0578, Sections 2.2.2.b, 2.2.2.c (Ref. 4), and letters of September 27 (Ref. 23) and November 9, 1979 (Ref. 24) and April 25, 1980 (Ref. 29).

III.D.3.3 INPLANT RADIATION MONITORING

Provide the equipment, training and procedures necessary to accurately determine the presence of airborne radioiodine in areas within the plant where plant personnel may be present during an accident.

This requirement shall be met before fuel loading. See NUREG-0578, Section 2.1.8c (Ref. 4), and letters of September 27 (Ref. 23) and November 9, 1979 (Ref. 24).

- C.2.16 For B&W-designed reactors, evaluate the effect of reactor coolant pump damage and leakage following a small-break LOCA concurrent with a loss of offsite power that results in the loss of seal cooling. See letter of August 21, 1979 (Ref. 30).

These requirements shall be met before issuance of a full-power license.

II.K.3 FINAL RECOMMENDATIONS OF B&O TASK FORCE

- C.3.3* Assure that any failure of a PORV or safety valve to close will be reported to the NRC promptly. All challenges to the PORVs or safety valves should be documented in the annual report.

This requirement shall be met before issuance of a full-power license.

III.A.1.1 UPGRADE EMERGENCY PREPAREDNESS

Provide an emergency response plan in substantial compliance with NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (which may be modified as a result of public comments solicited in early 1980) except that only a description of and completion schedule for the means for providing prompt notification to the population (App. 3), the staffing for emergencies in addition to that already required (Table B.1), and an upgraded meteorological program (App. 2) need be provided (Ref. 10). NRC will give substantial weight findings on offsite plans in judging the adequacy against NUREG-0654. Perform an emergency response exercise to test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

This requirement shall be met before issuance of a full-power license.

*Table C.3 of the Action Plan lists all of the recommendations of the B&O Task Force.

ENCLOSURE 2 (CONTINUED)

Clarification Item	Shortened Title	Description	Implementation Schedule	Plant Applicability	Requirements Issued	Clarification Issued	Tech Spec. Req.	Remarks
II.K.3	Final recommendations, BAO task force (continued)	c. New analyses	In accordance with review schedule	All	^A	Encl. 3	No	
		31. Plant-specific analysis	1/1/80A	All	^A	Encl. 3	No	
		44. Evaluate transients with single failure	1/1/81A	BWR	^A	Encl. 3	As required	
		45. Manual depressurization	1/1/81A	BWR	^A	Encl. 3	No	
		46. Michelson concerns	Fuel load	BWR	^A	Encl. 3	No	
III.A.1.1	Emergency preparedness, short term	Short-term improvements	Fuel load Complete	All	8/19/80	NUREG-0654	No	Use NUREG-0654 until Rev. 1 issued (due on 10/80)
III.A.1.2	Upgrade emergency support facilities	1. Establish TSC, OSC, EOF (interim basis)	TBD	All	9/27/79	11/9/79	No	
		2. Design	TBD	TBD	TBD	TBD	TBD	
		3. Modifications	TBD	TBD	TBD	TBD	TBD	
III.A.2	Emergency preparedness	1. Upgrade emergency plans to App E, 10 CFR 50	Full power Full power	All	8/19/80	NUREG-0654	No	Yes
		2. Meteorological data	Fuel load	All	6/26/80	NUREG-0654	No	Yes
III.D.1.1	Primary coolant outside containment	Measure leak rates & establish program to keep leakage ALARA	Full power	All	9/27/79	11/9/79 Encl. 3	Yes	
III.D.3.3	Inplant I ₂ radiation monitoring	1. Provide means to determine presence of radiiodine	Fuel load	All	9/27/79	11/9/79 Encl. 3	Yes	
		2. Modifications to accurately measure radiiodine	1/1/81 or prior to licensing	All	9/27/79	11/9/79 Encl. 3	Yes	
III.D.3.4	Control-room habitability	1. Identify and evaluate potential hazards	Full power	All	6/26/80	Encl. 3	No	
		2. Schedule for modifications	Full power	All	6/26/80	Encl. 3	No	
		3. Modifications	Full power	All	6/26/80	Encl. 3	Yes	

^A Four months before operating license is issued or 4 months before date indicated.

^A Requirement formally issued by this letter.

2-11
Exhibit B
Page 10 of 11

Enclosure 2

ENCLOSURE 2 (CONTINUED)

Clarification Item	Shortened Title	Description	Implementation Schedule	Plant Applicability	Requirements Issued	Clarification Issued	Tech Spec. Req.	Remarks
II.K.3	Final Recommendations, B&U task force (Continued)	c. New analyses	In accordance with review schedule	All	*	Encl. 3	No	
		31. Plant-specific analysis	1/1/80A	All	*	Encl. 3	No	As required
		44. Evaluate transients with single failure	1/1/81A	DWR	*	Encl. 3	No	
		45. Manual depressurization	1/1/81A	DWR	*	Encl. 3	No	
46. Michelson concerns	Fuel load	DWR	*	Encl. 3	No			
III.A.1.1	Emergency preparedness, short term	Short-term improvements	Complete				No	
III.A.1.2	Upgrade emergency support facilities	1. Establish TSC, OSC, EOF (interim basis)	TBD	All	9/27/79	11/9/79	No	
		2. Design	TDD	TDD	TDD	TDD	TDD	
		3. Modifications	TDD	TDD	TDD	TDD	TDD	
III.A.2	Emergency preparedness	1. Upgrade emergency plans to App E, 10 CFR 50	Full power	All	0/19/80	NUREG-0654	Yes	
		2. Meteorological data	Full power	All	6/26/80	NUREG-0654	Yes	
III.D.1.1	Primary coolant outside containment	Measure leak rates & establish program to keep leakage ALARA	Full power	All	9/27/79	11/9/79 Encl. 3	Yes	
III.D.3.3	Inplant I ₂ radiation monitoring	1. Provide means to determine presence of radiiodine	Fuel load	All	9/27/79	11/9/79 Encl. 3	Yes	
		2. Modifications to accurately measure radiiodine	1/1/81 or prior to licensing	All	9/27/79	11/9/79 Encl. 3	Yes	
III.D.3.4	Control-room habitability	1. Identify and evaluate potential hazards	Full power	All	6/26/80	Encl. 3	No	
		2. Schedule for modifications	Full power	All	6/26/80	Encl. 3	No	
		3. Modifications	Full power	All	6/26/80	Encl. 3	Yes	

Four months before operating license is issued or 4 months before date indicated.
 *Requirement formally issued by this letter.