

that would result from the proposed action, alternatives need not be evaluated.

#### *Alternative Use of Resources*

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for FSU.

#### *Agencies and Persons Consulted*

The license initiated this exemption, and the NRC staff is reviewing its request. The State of Colorado was notified of the proposed exemption. State Officials had no comments on the exemption.

#### **Finding of No Significant Impact**

NRC has determined not to prepare an environmental impact statement for the proposed exemption.

Based on this environmental assessment, the staff concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details on this action, see the licensee's application dated February 16, 1995, which is available for public inspection at the NRC's Public Document Room, 2120 L Street, NW, Washington, DC 20037, and at the local public document room at the Weld Library District.—Downtown Branch, 919 7th Street, Greeley, CO 80631.

For the Nuclear Regulatory Commission.

Dated at Rockville, Maryland, this 12th day of May, 1995.

#### **Michael F. Weber,**

*Chief, Low-Level Waste and Decommissioning Projects Branch, Division of Waste Management, Office of Nuclear material Safety and Safeguards.*

[FR Doc. 95-12471 Filed 5-19-95; 8:45 am]

BILLING CODE 7590-01-M

#### **Proposed Generic Communication Testing of Safety-Related Logic Circuits**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice of opportunity for public comment.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is proposing to issue a generic letter concerning problems with the testing of safety-related logic circuits. This draft generic letter requests addressees to review surveillance procedures to determine whether any of the procedures fail to test all required portions of the logic circuitry and, if any problems are found, to correct the problems. The NRC is seeking comment from interested parties

regarding both the technical and regulatory aspects of the proposed generic letter presented under the Supplementary Information heading. This proposed generic letter and supporting documentation were discussed in meeting number 272 of the Committee to Review Generic Requirements (CRGR) on April 25, 1995. The relevant information that was sent to the CRGR to support their review of the proposed generic letter will be made available in the NRC Public Document Room. The NRC will consider comments received from interested parties in the final evaluation of the proposed generic letter. The NRC's final evaluation will include a review of the technical position and, when appropriate, an analysis of the value/impact on licensees. Should this generic letter be issued by the NRC, it will become available for public inspection in the Public Document Rooms.

The staff recognizes that during implementation of the requested actions in the proposed generic letter, licensees may identify conditions in violation of their technical specifications or other NRC requirements. Consequently, the staff is considering the possibility of exercising enforcement discretion under certain circumstances during the period of implementation of the requested actions in order to encourage licensees to perform effective reviews.

**DATES:** Comment period expires on July 21, 1995. Comments submitted after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except for comments received on or before this date.

**ADDRESSES:** Submit written comments to Chief, Rules Review and Directives Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Written comments may also be delivered to 11545 Rockville Pike, Rockville, Maryland, from 7:30 am to 4:15 pm, Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, 2120 L Street, NW., (Lower Level), Washington, DC.

#### **FOR FURTHER INFORMATION CONTACT:**

Hukam Garg, (301) 415-2929.

#### **SUPPLEMENTARY INFORMATION:**

#### **NRC Generic Letter No. 95-XX: Testing of Safety-Related Logic Circuits**

#### *Addresses*

All holders of operating licenses or construction permits for nuclear power reactors.

#### *Purpose*

The U.S. Nuclear Regulatory Commission (NRC) is issuing this generic letter to: (1) notify addressees about problems with testing of safety-related logic circuits, (2) request that all addressees implement the actions described herein, and (3) require that all addressees submit a written response to this generic letter regarding implementation of the requested actions.

#### *Background*

The Nuclear Regulatory Commission staff had previously issued the following information notices (INs) regarding problems with testing of safety-related logic circuits: IN 88-83, "Inadequate Testing of Relay Contacts in Safety-Related Logic Circuits," dated October 19, 1988; IN 91-13, "Inadequate Testing of Emergency Diesel Generators (EDGs)," dated March 4, 1991; IN 92-40, "Inadequate Testing of Emergency Bus Undervoltage Logic Circuitry," dated May 27, 1992; IN 93-15, "Failure to Verify the Continuity of Shunt Trip Attachment Contacts in Manual Safety Injection and Reactor Trip Switches," dated February 18, 1993; and IN 93-38, "Inadequate Testing of Engineered Safety Features Actuation Systems," dated May 24, 1993. Despite these notices, recent events have occurred similar to those described in the INs which indicate that licensees have not taken sufficient action to correct previously identified problems in logic circuit surveillance testing. On March 7, 1995, NRC issued IN 95-15, "Inadequate Logic Testing of Safety-Related Circuits," which informed licensees about these recent events at Cooper Nuclear Station, Fermi 2, Waterford 3, Grand Gulf Nuclear Station, and Arkansas Nuclear One, Unit 1 and Unit 2.

#### *Description of Circumstances*

The NRC has documented a significant number of instances involving problems with logic testing of safety-related circuits in the information notices described above. These information notices discuss events at various pressurized water and boiling water reactors. The examples of problems with logic testing cover a wide range of systems including safety injection system actuation, containment spray system actuation, residual heat removal system actuation, diesel generator load sequencing, and reactor protection system actuation. In most cases, the affected logic circuits functioned properly when testing in accordance with technical specification

(TS) requirements was performed. The NRC has taken enforcement action in many of these cases since they resulted in violations. The details of these instances are included in the information notices cited above. An example of the details associated with this issue at Fermi Station are repeated here.

On July 15, 1994, during a routine review of surveillance procedures required by the Fermi Unit 2 TS, the licensee (Detroit Edison Company) discovered that neither the procedures used for testing the load shedding of the 4160 volt Residual heat Removal (RHR) pumps nor the related instrumentation and control (I&C) logic functional test procedure provided for the full testing of the RHR pump start logic. Also, the test procedures did not include verification that the switchgear breaker would not close with an undervoltage signal present at the bus.

After investigating further, the licensee discovered additional deficiencies in the undervoltage functional test surveillance procedures including the logic functional test surveillance procedures for the three other engineered safety buses. Also, the surveillance test overlap did not include sufficient overlap of the logic circuit to cover the degraded voltage trip input to the non-interruptible air supply system isolation logic, the degraded voltage trip input to the bus feeder breaker position, and the alternative automatic closure circuits for the EDG output breakers. The licensee further determined that the 480 volt load shed logic had not been fully tested.

On September 9, 1994, the licensee identified additional surveillance deficiencies and expanded the investigation of its surveillance procedures for EDGs and I&C overlap testing. During this investigation, the licensee determined that (1) multiple pathways for starting an EDG through the emergency core cooling system (ECCS) logic were not being tested, (2) emergency equipment cooling water (EECW) actuation from the load sequencer was not being differentiated from EECW actuation on reactor building closed cooling water low pressure, and (3) test acceptance criteria permitted performance outside of the TS limits.

On November 30, 1994, the licensee identified several other test deficiencies in its surveillance procedures. These deficiencies were related to the core spray system, RHR system, reactor protection system, safety relief valves, alternate rod insertion and main steam isolation valve leadage control system logic, remote shutdown panel, primary

containment manual isolation valves, and alternate shutdown panel transfer switches.

To address the above deficiencies, the licensee has taken the following correction actions: (1) Reviewed deficient procedures and performed required surveillance to establish operability, (2) reviewed similar procedures to identify other deficiencies. The licensee has taken the following corrective actions: (1) reviewed deficient procedures and performed required surveillance to establish operability, (2) reviewed similar procedures to identify other deficiencies, (3) created electrical overlap drawings, and (4) trained authors and technical reviewers of procedures to be fully aware of logic surveillance requirements. The NRC staff issued a notice of violation to Detroit Edison Company concerning the above issue (NRC Inspection Report No. 50-341/94-12).

#### Discussion

A number of NRC regulations document the requirements to test safety-related systems to ensure that they will function as designed when called upon. For example, Title 10 of the Code of Federal Regulations (10 CFR), Section 50.36, "Technical Specifications," paragraph (c)(3) states that, "surveillance requirements are requirements relating to test, calibration or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within the safety limits, and that the limiting conditions of operation will be met." surveillance requirements to assure continued operability of safety related logic circuits have been included in the plant-specific technical specifications for all operating nuclear power plants

Other documents that provide a basis for these requirements include:

- 10 CFR 50.55a, "Codes and Standards," paragraph (h) which includes reference to Institute of Electrical and Electronic Engineers (IEEE) Standard 279, "Criteria for Protection Systems for Nuclear Power Generating Stations"
- Appendix A to 10 CFR 50, General Design Criterion (GDC) 21, "Protection System for Reliability and Testability"
- Appendix A to 10 CFR 50, General Design Criterion (GDC) 18, "Inspection and Testing of Electric Power Systems"
- Appendix B to 10 CFR 50, Criterion XI, "Test Control"
- Regulatory Guide (RG) 1.118, "Periodic Testing of Electric Power and Protection Systems"

- RG 1.32, "Criteria for Safety-Related Electric Power Systems for Nuclear Power Plants"

As noted above, the NRC staff has issued a number of information notices (identified in the "Background" section) that document identified deficiencies in actuation logic surveillance test programs. However, because of the number of more recently identified similar deficiencies, the NRC staff has determined that licensees may not have yet adequately addressed this issue and further action is necessary.

The NRC staff finds that the failure to adequately test safety-related actuation logic circuitry is safety significant in that inoperable essential electric components required for automatic actuation of post-accident mitigation systems may be undetected for extended periods. This is particularly true for the reactor protection system, whose unavailability is shown in probabilistic risk assessments to be a dominant contributor to potential core damage scenarios. Undetected reactor protection system availability/reliability degradation is also a potentially significant contributor to overall risk. Unavailability of those circuits associated with automatic emergency core cooling system (ECCS) actuation, especially in a loss-of-offsite-power situation, is a lesser contributor to overall risk but is important in ensuring post-accident recovery in accordance with licensing bases. Failure to automatically actuate safety systems also places the additional burden on the operators of having to manually actuate required functions and thus increases the chance for operator error.

The NRC staff notes that even in cases where surveillance testing of the logic circuits has not been complete, it is likely that only very small portions of the circuit have been omitted from the test. Further, the NRC staff is not aware of instances of specifically identified surveillance inadequacies that resulted in the unavailability of the safety system when called on during an event. Nevertheless, as indicated above, the NRC staff finds that compliance with the plant-specific technical specifications is essential in order to maintain the validity of the assumptions in the licensing basis accident analyses. On the basis of the recent events, previously issued INs, complexity of the logic, and contribution to the core damage frequency, the NRC staff has further determined that licensees should review their surveillance procedures for the reactor protection system, EDG load shedding and sequencing, and actuation logic for the engineered safety features systems to ensure that complete testing

is being performed as required by the technical specifications.

#### *Requested Actions*

The NRC staff requests that all holders of operating licenses for nuclear power reactors take the following actions:

(1) Compare electrical schematic drawings and logic diagrams for the reactor protection system, EDG load shedding and sequencing and actuation logic for the engineered safety features systems against technical specification surveillance test procedures to ensure that all portions of the logic circuitry, including the parallel logic, interlocks, bypasses and inhibit circuits, are adequately covered in the surveillance procedures. This review should also include relay contacts, control switches, and other relevant electrical components within these systems, utilized in the logic circuits.

(2) Modify the surveillance procedures as necessary for complete testing to comply with the technical specifications. Additionally, the licensee may request an amendment to the technical specifications if relief from certain testing requirements can be justified.

It is requested the completion of these actions not go beyond the first refueling outage commencing 90 days after the issuance of this generic letter.

**Note:** Some licensees may have already performed the requested reviews and taken appropriate corrective actions. These licensees do not need to perform any additional review unless modifications have been made to the logic circuits for these systems. In these cases the modifications should be reviewed.

#### *Required Response*

All addressees, including those who have already completed the requested actions, are required to submit a written response to this generic letter as follows:

(1) Within 60 days of the date of this generic letter, a written response indicating whether or not the addressee will implement the actions requested above. If the addressee intends to implement the requested actions, submit a schedule for completing implementation. If an addressee chooses not to take the requested actions, submit a description of any proposed alternative course of action, the schedule for completing the alternative course of action (if applicable), and the safety basis for determining the acceptability of the planned alternative course of action.

(2) Within 30 days of completion of the requested actions, a response confirming completion.

#### *Backfit Discussion*

The actions requested in this generic letter are considered backfits in accordance with NRC procedures. Because established regulatory requirements exist but were not satisfied, these backfits are necessary to bring the addressees into compliance with existing requirements. Therefore, on the basis of 10 CFR 50.109(a)(4)(i), a full backfit analysis was not performed.

An evaluation was performed in accordance with NRC procedures, including a statement of the objectives of and reasons for the requested actions and the basis for invoking the compliance exception. Response to question ix in the CRGR review package contains this evaluation.

Dated at Rockville, Maryland, this 15th day of May, 1995.

For the Nuclear Regulatory Commission.

**Brian K. Grimes,**

*Director, Division of Project Support, Office of Nuclear Reactor Regulation.*

[FR Doc. 95-12468 Filed 5-19-95; 8:45 am]

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#### **Advisory Committee on Reactor Safeguards; Meeting Agenda**

In accordance with the purposes of Sections 29 and 182b. of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards will hold a meeting on June 8-10, 1995, in Conference Room T2B3, 11545 Rockville Pike, Rockville, Maryland. The date of this meeting was previously published in the **Federal Register** on Wednesday, December 28, 1994 (59 FR 66977).

*Thursday, June 8, 1995*

*8:30 a.m.-8:45 a.m.: Opening Remarks by the ACRS Chairman (Open)*—The ACRS Chairman will make opening remarks regarding conduct of the meeting and comment briefly regarding items of current interest. During this session, the Committee will discuss priorities for preparation of ACRS reports.

*8:45 a.m.-9:15 a.m.: Preparation for Meeting with the Commissioners (Open)*—The Committee will discuss topics scheduled for the meeting with the Commissioners.

*9:30 a.m.-11:00 a.m.: Meeting with the Commissioners (Open)*—The Committee will meet with the Commissioners, in the Commissioner's Conference Room, One White Flint North, to discuss items of mutual interest.

*11:15 a.m.-12:00 noon: Ethics Training (Open)*—The Committee will

hear presentations by and hold discussions with representatives of the NRC Office of the General Counsel regarding the provisions of the Ethics regulations which apply to Special Government Employees.

*1:00 p.m.-3:00 p.m.: Proposed Final PRA Policy Statement (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the proposed Final PRA Policy Statement. Also representatives of the Nuclear Energy Institute (NEI) will brief the Committee regarding the NEI/EPRI Probabilistic Safety Assessment (PSA) Application Guide.

*3:15 p.m.-4:45 p.m.: Proposed Final Rule on Reactor Vessel Annealing (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the proposed final rule on reactor vessel annealing.

Representatives of the industry will participate, as appropriate.

*5:00 p.m.-6:30 p.m.: Preparation of ACRS Reports (Open)*—The Committee will discuss proposed ACRS reports on matters considered during this meeting.

*Friday, June 9, 1995*

*8:30 a.m.-8:35 a.m.: Opening Remarks by the ACRS Chairman (Open)*—The ACRS Chairman will make opening remarks regarding conduct of the meeting.

*8:35 a.m.-9:45 a.m.: Status of Issues Associated with the AP600 Design Certification Review (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the status of issues associated with the AP600 design certification review.

Representatives of the industry will participate, as appropriate.

*9:45 a.m.-10:45 a.m.: Policy and Technical Issues for Passive Plant Designs (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding policy and technical issues for passive plant designs.

Representatives of the industry will participate, as appropriate.

*11:00 a.m.-12:30 p.m.: Prioritization of Generic Safety Issues (GSIs) (Open)*—The Committee will hold discussions with representatives of the NRC staff regarding the comments from cognizant subcommittee chairman on the priority rankings proposed by the Staff for a group of GSIs, and also the schedule for prioritizing the remaining GSIs.

*1:30 p.m.-2:30 p.m.: Fire-Protection Related Issues (Open/Closed)*—The Committee will hear presentations by