

calculated for a number of postulated LOCAs of different sizes, locations, and other properties sufficient to provide assurance that the most severe postulated LOCAs are calculated.

Appendix K of Part 50, "ECCS Evaluation Models," requires, among other items, that the rate of energy release, hydrogen generation, and cladding oxidation from the metal/water reaction shall be calculated using the Baker-Just equation (Baker, L., Just, L.C., "Studies of Metal Water Reactions at High Temperatures, III. Experimental and Theoretical Studies of the Zirconium-Water Reaction," ANL-6548, page 7, May 1962) and implicitly assumes that either zircaloy or ZIRLO shall be used as the fuel rod cladding material.

Sections 50.44, and 50.46, and Appendix K of 10 CFR Part 50, make no provisions for use of fuel rods clad with other than zircaloy or ZIRLO. The licensee has requested the use of Framatome Cogema Fuels (FCF) "M5" advanced alloy for fuel rod cladding for the TMI-1 Cycle 14 operation. In order to accommodate the high fuel rod burnups that are required for today's modern fuel management schemes and core designs, FCF developed the M5 advanced fuel rod cladding and fuel assembly structural material. The M5 alloy is a proprietary zirconium-based alloy comprised of primarily zirconium (~99 percent) and niobium (~1 percent). The elimination of tin has resulted in superior corrosion resistance and reduced irradiation induced growth relative to both standard Zircaloy and low-tin Zircaloy. The addition of niobium increases ductility. Since the chemical composition of the M5 alloy differs from the specifications of Zircaloy or ZIRLO, a plant-specific exemption is required to allow the use of the M5 alloy as a fuel rod cladding material at TMI-1. The M5 would also be used for fuel assembly spacer grids, fuel rod end plugs and fuel assembly guide and instrument tubes.

3.0 Discussion

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50, when (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Special circumstances are present whenever application of the regulations in the particular circumstances would not serve the underlying purpose of the rule

or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of Section 50.46 is to ensure that facilities have adequate acceptance criteria for ECCS. FCF demonstrated in its topical report, BAW-10227P-A, "Evaluation of Advanced Cladding and Structural Material (M5) in PWR Reactor Fuel," dated September 30, 1997, and approved on February 4, 2000, that the effectiveness of the ECCS will not be affected by a change from zircaloy fuel rod cladding to M5 fuel rod cladding. The analysis described in BAW-10227P-A also concludes that the ECCS acceptance criteria applied to reactors fueled with zircaloy fuel are also applicable to reactors fueled with M5 fuel rod cladding.

The underlying purposes of Section 50.44 and Appendix K, paragraph I.A.5, are to ensure that cladding oxidation and hydrogen generation are appropriately limited during a LOCA and conservatively accounted for in the ECCS evaluation model. Specifically, Appendix K requires that the Baker-Just equation be used in the ECCS evaluation model to determine the rate of energy release, cladding oxidation, and hydrogen generation. In BAW-10227P-A, FCF demonstrated that the Baker-Just model is conservative in all post-LOCA scenarios with respect to the use of M5 advanced alloy as fuel rod cladding material. The licensee has stated that the amount of hydrogen generated in an M5-clad core will remain within the TMI-1 design basis. The NRC staff has reviewed the FCF's advanced cladding and structural material, M5, for pressurized water reactor fuel mechanical designs as described in BAW-10227P-A. In its February 4, 2000, safety evaluation, the NRC staff concluded that, to the extent specified and with limitations noted in the NRC staff's evaluation, the assumptions related to M5 material properties and mechanical design methodology are acceptable for referencing in fuel reload licensing applications. The NRC staff has determined that since the licensee and FCF have ongoing processes which assure that LOCA analysis input values for peak cladding temperature-sensitive parameters bound the as-operated plant values for those parameters at TMI-1 and also have ongoing processes to determine mixed-core penalties as needed, the methodologies and analyses described in BAW-10227P-A apply to TMI-1 and the plant can be safely operated within the bounds of those analyses with mixed- and full-core loadings of M5 clad fuel and other M5 core structures. The NRC staff further concluded that since fuel assemblies

which utilize the two different alloys (M5 and zircaloy) and which will be co-resident in the core have only slight geometry differences, there will be virtually no thermal-hydraulic effect, and a mixed core penalty in LOCA evaluations would not have to be assessed to compensate for the material differences. Therefore, based on the information described above, the NRC staff has determined that the underlying purposes of Section 50.44, and 50.46, and Appendix K of 10 CFR Part 50 have been achieved through the use of M5 advanced alloy as fuel rod cladding material and core structure material, and that the special circumstances required by 10 CFR 50.12(a)(2)(ii) for granting exemptions from 50.44, and 50.46, and Appendix K of 10 CFR Part 50 exist.

4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a)(ii), the exemption is authorized by law, will not endanger life or property or common defense and security, and is, otherwise, in the public interest. Also, special circumstances are present. Therefore, the Commission hereby grants AmerGen Energy Company, LLC, an exemption from the requirements of 10 CFR 50.44, 10 CFR 50.46, and Appendix K to 10 CFR Part 50, for Three Mile Island Nuclear Station, Unit 1, as to the use of M5 cladding and core structures in lieu of Zircaloy or ZIRLO as currently specified or implied in those regulations.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (66 FR 23279).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 8th day of May 2001.

For the Nuclear Regulatory Commission.

John A. Zwolinski,

Director, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 01-12035 Filed 5-11-01; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-272 and 50-311]

PSEG Nuclear LLC, Salem Nuclear Generating Station, Unit Nos. 1 and 2; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering

issuance of an exemption from certain requirements of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix G, for Facility Operating License Nos. DPR-70 and DPR-75, issued to PSEG Nuclear LLC (the licensee), for operation of the Salem Nuclear Generating Station (Salem), Unit Nos. 1 and 2. The facility is located at the licensee's site on the southern end of Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. Salem, New Jersey is located approximately 7.5 miles northeast of the site.

Environmental Assessment

Identification of the Proposed Action

Title 10 of the Code of Federal Regulations, Part 50, Appendix G, requires that pressure-temperature (P-T) limits be established for reactor pressure vessels (RPVs) during normal operating and hydrostatic or leak rate testing conditions. Specifically, 10 CFR Part 50, Appendix G, states, "The appropriate requirements on both the pressure-temperature limits and the minimum permissible temperature must be met for all conditions." The purpose of 10 CFR Part 50, Appendix G, is to protect the integrity of the reactor coolant pressure boundary in nuclear power plants. This is accomplished through these regulations that, in part, specify fracture toughness requirements for ferritic materials of the reactor coolant pressure boundary. Appendix G of 10 CFR Part 50 specifies that the requirements for these limits are the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Appendix G limits.

The proposed action would exempt the licensee from implementing specific requirements of 10 CFR Part 50, Appendix G, for operation of Salem, Unit Nos. 1 and 2. In conjunction with the staff granting the proposed exemption to the requirements of 10 CFR Part 50, Appendix G, the licensee is proposing to substitute ASME Code Case N-640, "Alternative Reference Fracture Toughness for Development of P/T Limit Curves for ASME Section XI, Division I."

The proposed action is in accordance with the licensee's application for exemption dated November 10, 2000, as supplemented by letters dated March 28 and April 2, 2001.

The Need for the Proposed Action

ASME Code Case N-640 is needed to revise the method used to determine the reactor coolant system (RCS) P-T limits, since continued use of the present curves unnecessarily restricts the P-T

operating window. The methodology currently used to determine the lower bound fracture toughness of RPV material for development of P-T limit curves is based on the K_{Ia} fracture toughness curve of ASME Section XI, Appendix G, Figure G-2210-1. The licensee has determined that the use of the K_{Ia} curve provided appropriate conservatism when it was codified in 1974 due to the limited knowledge of RPV materials. However, since that time, additional knowledge has been gained about RPV materials, that demonstrates that the lower bound on fracture toughness provided by the K_{Ia} curve is well beyond the margin of safety required to protect the public health and safety from potential RPV failure. Implementation of ASME Code Case N-640 would provide an alternative to the methodology used to develop P-T limit curves. The code case methodology uses the K_{Ic} fracture toughness curve shown in ASME Section XI, Appendix A, Figure A-2200-1, in lieu of the K_{Ia} fracture toughness curve of ASME Section XI, Appendix G. Other margins involved with the ASME Section XI, Appendix G process for establishing P-T limit curves would remain unchanged. P-T curves based on the K_{Ic} curve would enhance overall plant safety by opening the P-T operating window with the greatest safety benefit in the region of low temperature operations. The operating window through which the operator heats up and cools down the RCS is determined by the difference between the maximum allowable pressure determined by ASME Section XI, Appendix G, and the minimum required pressure for the reactor coolant pump (RCP) seals adjusted for instrument uncertainties.

The staff has determined that, pursuant to 10 CFR 50.12(a)(2)(ii), the underlying purpose of the regulation to protect the integrity of the reactor coolant pressure boundary will continue to be served with the implementation of Code Case N-640.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed action and concludes that the exemption and implementation of the proposed alternative as described is consistent with the intent of the applicable regulations and would provide an acceptable margin of safety against brittle failure of the Salem, Unit Nos. 1 and 2 RPV material.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any

effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological environmental impacts, the proposed action does not involve any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Salem Nuclear Generating Station, dated April 1973.

Agencies and Persons Consulted

In accordance with its stated policy, on May 1, 2001, the staff consulted with the New Jersey State official, Mr. R. Pinney of the New Jersey Department of Environmental Protection, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 10, 2000, as supplemented by letters dated March 28 and April 2, 2001. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from

the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Electronic Reading Room).

Dated at Rockville, Maryland, this 8th day of May 2001.

For the Nuclear Regulatory Commission.

Robert J. Fretz,

Project Manager, Section 2, Project Directorate I, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 01-12036 Filed 5-11-01; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

Public Meeting on an Overview of Activities Related to the Potential High-Level Waste Repository at Yucca Mountain, NV

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of public meeting in Mesquite, Nevada.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) staff will hold a public meeting on the high-level waste repository licensing process. The meeting is intended to foster a common understanding among the stakeholders on issues that would be associated with the licensing process, should the U.S. Department of Energy (DOE) submit a license application to the NRC for a possible geologic repository at Yucca Mountain, Nevada. All meetings will be facilitated by Francis X. Cameron, Special Counsel for Public Liaison, of the NRC Office of the General Counsel.

The meeting is primarily to acquaint the public with the NRC's high-level waste licensing process. It will begin with an overview of the licensing process, followed by NRC presentations on the role of the NRC technical staff in evaluating the DOE license application, and the NRC role with respect to the transportation of high-level waste. An opportunity for questions will be provided. In addition, members of the NRC staff will be available for informal discussion with members of the public. The time, date, and location of the Public Meeting is shown below.

Time/Date: Thursday, May 24, 2001, from 5:30 p.m.-7 p.m. (Pacific time).

Place: Mesquite City Hall, Council Chamber, 10 E. Mesquite Boulevard, Mesquite, Nevada.

FOR FURTHER INFORMATION CONTACT: Francis X. Cameron, Special Counsel for Public Liaison, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington DC 20555-

0001, or by telephone: (301) 415-1642 or e-mail: fxc@nrc.gov.

Dated at Rockville, Maryland this 8th day of May, 2001.

For the Nuclear Regulatory Commission,

Newton K. Stablein,

Acting Chief, High-Level Waste and Performance Assessment Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 01-12037 Filed 5-11-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Public Meetings on Issues Associated With the Licensing Process for a Possible High-Level Waste Repository at Yucca Mountain, Nevada; Overview of NRC's Formal Hearing Process

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of public meetings in Pahrump, Nevada and Las Vegas, Nevada.

SUMMARY: In response to public requests, the U.S. Nuclear Regulatory Commission (NRC) staff will continue its series of public meetings on the high-level waste repository licensing process. The next meetings are intended to foster an understanding of the hearing process that the NRC would use to decide whether to issue a construction authorization for a possible repository at Yucca Mountain, Nevada, if the U.S. Department of Energy (DOE) were to submit a license application to the NRC. On April 15, 2001, the Commission announced its intent to retain a formal hearing process for evaluating a potential license application for a geologic repository. Both meetings will be facilitated by Francis X. Cameron, Special Counsel for Public Liaison, of the NRC Office of the General Counsel.

Two meetings on this topic will be conducted to acquaint the public with the NRC's high-level waste hearing process. They will begin with an overview of the events that would have to take place before NRC would initiate a formal hearing, a general review of the NRC's licensing role, and a general description of the NRC's formal hearing process. These presentations will be followed by a question and answer period. In addition, members of the NRC staff will be available for informal discussion with members of the public. The time, date, and location of the Public Meetings are shown below.

Time/Date: Tuesday, May 22, 2001, from 6:30 p.m. to 9 p.m. (Pacific time).

Place: Mountain View Casino and Bowl, 1750 Pahrump Valley Boulevard, Pahrump, Nevada 89048.

Time/Date: Wednesday, May 23, 2001, from 1 p.m. to 4 p.m. (Pacific time).

Place: Regional Transportation Commission Building (Next to Clark County Government Center) Room 108, 600 South Grand Central Parkway, Las Vegas, Nevada 89155.

FOR FURTHER INFORMATION CONTACT:

Francis X. Cameron, Special Counsel for Public Liaison, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-001, or by telephone: (301) 415-1642 or e-mail fxc@nrc.gov.

Dated at Rockville, Maryland this 8th day of May 2001.

For the Nuclear Regulatory Commission.

C. William Reamer,

Chief, High-Level Waste Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 01-12038 Filed 5-11-01; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

Sunshine Act Meeting

AGENCY HOLDING THE MEETING: Nuclear Regulatory Commission.

DATE: Weeks of May 14, 21, 28, June 4, 11, 18, 2001.

PLACE: Commissioner's Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and Closed.

MATTERS TO BE CONSIDERED:

Week of May 14, 2001

There are no meetings scheduled for the Week of May 14, 2001.

Week of May 21, 2001—Tentative

There are no meetings scheduled for the Week of May 21, 2001.

Week of May 28, 2001—Tentative

Wednesday, May 30, 2001

10:25 a.m. Affirmation Session (Public Meeting) (If needed)

Week of June 4, 2001—Tentative

Tuesday, June 5, 2001

9:25 a.m. Affirmation Session (Public Meeting) (If needed)

2 p.m. Discussion of Management Issues (Closed-Ex. 2)

Wednesday, June 6, 2001

10:30 a.m. All Employees Meeting (Public Meeting)

1:30 p.m. All Employees Meeting (Public Meeting)