fire damage in the event of a fire. Based on the existing fire barriers, fire detectors, automatic and manual fire suppression equipment, administrative controls, the fire hazard analysis, the Hemyc configuration, and the absence of significant combustible loads and ignition sources, the NRC staff judges that application of Subsection III.G.2 of 10 CFR Part 50, Appendix R, for these Fire Areas is not necessary to achieve the underlying purpose of this regulation. No new accident precursors are created by allowing use of a fire barrier expected to provide less than 1 hour of fire protection and the probability of postulated accidents is not increased. Similarly, the consequences of postulated accidents are not increased. Therefore, there is no undue risk (since risk is probability multiplied by consequences) to public health and safety.

3.8 Consistent With Common Defense and Security

The proposed exemption would allow use of a fire barrier expected to provide less than 1 hour of fire protection based on the existing fire barriers, fire detectors, automatic and manual fire suppression equipment, administrative controls, the fire hazard analysis, the Hemyc configuration, and the absence of significant combustible loads and ignition sources. This change to the plant requirements for the specific configuration in this fire zone has no relation to security issues. Therefore, the common defense and security is not impacted by this exemption.

3.9 Special Circumstances

One of the special circumstances, described in 10 CFR 50.12(a)(2)(ii), is that the application of the regulation is not necessary to achieve the underlying purpose of the rule. The underlying purpose of Subsection III.G.2 of 10 CFR Part 50, Appendix R, is to ensure that one of the redundant trains necessary to achieve and maintain hot shutdown conditions remains free of fire damage in the event of a fire. For Fire Area ETN–4 (Fire Zones 7A, 60A, and 73A) and Fire Area PAB–2 (Fire Zone 1), the NRC staff finds that the existing configuration described herein will ensure that a redundant train necessary to achieve and maintain safe shutdown of the plant will remain free of fire damage in the event of a fire in these fire zones. Based upon consideration of the information in the licensee's Fire Hazards Analysis, administrative controls for transient combustibles and ignition sources, previously-granted exemptions for this fire zone, and the considerations noted above, the NRC staff concludes that this exemption meets the underlying purpose of the rule.

4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. In addition, a special circumstance is present such that the application of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of the rule. Therefore, the Commission hereby grants ENO an exemption from the requirement of Section III.G.2 of 10 CFR Part 50, Appendix R, for Fire Area ETN–4 (Fire Zones 7A, 60A, and 73A) and Fire Area PAB–2 (Fire Zone 1) at IP3, provided that the existing Hemyc ERFBS in these areas are modified to achieve at least a 24-minute fire resistance rating for cable tray configuration and 30-minute fire resistance rating for conduits and box configurations, consistent with the licensees comparison to the NRC's tested configurations as documented in Entergy Engineering Report IP–RPT–06–00062, Revision 0, ''Comparison of IP3 Hemyc Electrical Raceway Fire Barrier System to NRC Hemyc Fire Test Results,'' which meet ASTM–E–119 temperature rise acceptance criteria. The modifications, as committed in Entergy Letter NL–07–061, dated May 23, 2007, will include:

Complete modification (including supporting engineering evaluation) to install stainless steel over-banding (as described), additional protection of the electrical raceway supports, and protection of certain metallic penetration items, associated with the existing Hemyc ERFBS located outside containment at Indian Point 3. [This is a clarification of commitment 3 (licensee reference number COM–07–00034) made in Entergy Letter NL–06–060 dated June 8, 2006.]

The licensee is also committed to keep fire protection compensatory measures in place at IP3 until the aforementioned modifications are completed. The scheduled completion date of these modifications is December 1, 2008. The acceptance of this exemption is also based on the licensee's stated availability of administrative control procedures that control hot work and limit transient combustibles in the affected areas.

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 (72 FR 55254).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 28th day of September 2007.

For the Nuclear Regulatory Commission.

Catherine Haney,

Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. E7–19663 Filed 10–3–07; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

[Docket No. STN 50–456]

Exelon Generation Company, LLC; Braidwood Station, Unit 1; Exemption

1.0 Background

Exelon Generation Company, LLC (Exelon, the licensee) is the holder of Facility Operating License No. NPF–72, which authorizes operation of Braidwood Station, Unit 1. The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facility consists of two pressurized-water reactors located in Will County in Illinois.

2.0 Request/Action

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, section 50.46,

''Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors,'' requires, in part, ''that each boiling or pressurized light-water nuclear power reactor fueled with uranium oxide pellets within cylindrical Zircaloy or ZIRLO cladding must be provided with an emergency core cooling system (ECCS) that must be designed so that its calculated cooling performance following postulated loss-of-coolant accidents conforms to the criteria set forth in paragraph (b) of this section.'' 10 CFR Part 50, Appendix K, ''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. 10 CFR 50.46 and 10 CFR Part 50, Appendix K make no provisions for use of fuel rods clad in a material other than Zircaloy or ZIRLO.

The Braidwood, Unit 1 core consists of a combination of Westinghouse-designed VANTAGE 5 and VANTAGE+ fuel assemblies. Each fuel assembly has 264 fuel rods arranged in a 17 by 17 array. The licensee intends to insert up to eight fuel assemblies containing AREVA NP Inc. (AREVA) modified Advanced Mark-BW(A) (Advanced Mark-BW(A)) fuel. These assemblies will be placed in nonlimiting locations of the core during Cycles 15, 16,

and 17. The Advanced Mark-BW(A) fuel assemblies are similar in design to the Advanced Mark-BW fuel assemblies using the approved M5 alloy for the cladding, structural tubing, and grids. The Advanced Mark-BW fuel design was approved in a topical report BAW–10239(P)–A, entitled ''Advanced Mark-BW Fuel Assembly Mechanical Design Topical Report'' (Advanced Mark-BW Topical Report).

The licensee requested an exemption from the requirements of 10 CFR 50.46 and 10 CFR Part 50, Appendix K to allow the use of fuel rods clad with AREVA's M5 alloy. The M5 alloys are proprietary alloys and chemically different from Zircaloy or ZIRLO fuel cladding materials which are approved for use. Therefore, a plant specific exemption from these regulations is required to support the use of the eight Advanced Mark-BW(A) fuel assemblies for Braidwood Station, Unit 1.

In summary, the licensee has requested an exemption from the requirements of 10 CFR 50.46 and 10 CFR Part 50, Appendix K, to allow the use of fuel assemblies containing Advanced Mark-BW(A) fuel design.

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. These circumstances include the special circumstances that application of the regulation in 10 CFR 50.46 and 10 CFR Part 50, Appendix K is not necessary to achieve the underlying purpose of the rule.

Authorized by Law

This exemption would allow the licensee to load fuel assemblies containing Advanced Mark-BW(A) fuel at Braidwood Station, Unit 1. As stated above, 10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR 50.46 and 10 CFR Part 50, Appendix K. The NRC staff has determined that granting of the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

No Undue Risk to Public Health and Safety

The underlying purposes of 10 CFR 50.45 is to establish acceptance criteria for ECCS performance. Previously, the approved Advanced Mark-BW Topical Report demonstrated the acceptability of the M5 cladding under loss of coolant accident (LOCA) conditions. The unique features of the proposed fuel assemblies were evaluated for effects on the LOCA analysis. The results showed that the assemblies would not adversely affect the ECCS performance. Since the eight Advanced Mark-BW(A) fuel assemblies will be located at non-limiting core locations, the NRC concludes that the LOCA safety analyses will remain bounding for these assemblies at Braidwood Station, Unit 1.

Paragraph I.A.5 of 10 CFR Part 50, Appendix K states that the rates of energy, hydrogen concentration, and cladding oxidation from the metal-water reaction shall be calculated using the Baker-Just equation. Since the Baker-Just equation presumes the use of Zircaloy clad fuel, strict application of the rule would not permit use of the equation for the advanced zirconium-based and M5 alloys for determining acceptable fuel performance. The underlying intent of this portion of 10 CFR Part 50, Appendix K, however, is to ensure that analysis of fuel response to LOCAs is conservatively calculated. The approved Advanced Mark-BW Topical Report show that due to the similarities in the chemical composition of the M5 alloys and Zircaloy, the application of the Baker-Just equation in the analysis of the M5 clad fuel rods will continue to conservatively bound all post-LOCA scenarios. Thus, application of 10 CFR Part 50, Appendix K, Paragraph I.A.5 is not necessary for the licensee to achieve its underlying purpose in these circumstances.

Based on the above, no new accident precursors are created by using the proposed Advanced Mark-BW(A) fuel assemblies at Braidwood Station, Unit 1, thus, the probability of postulated accidents is not increased. Also, based on the above, the consequences of postulated accidents are not increased. Therefore, there is no undue risk to public health and safety.

Consistent With Common Defense and Security

The proposed exemption would allow the use of Advanced Mark-BW(A) fuel assemblies at Braidwood Station, Unit 1. This change to the operation of the plant has no relation to security issues. Therefore, the common defense and security is not impacted by this exemption.

Special Circumstances

Special circumstances, in accordance with 10 CFR 50.12, are present whenever application of the regulation 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 10 CFR 50.46 is to establish acceptance criteria for ECCS performance. Since the eight Advanced Mark-BW(A) fuel assemblies will be located at non-limiting core locations, the NRC concludes that the LOCA safety analyses will remain bounding for these assemblies at Braidwood Station, Unit 1. The underlying purpose of 10 CFR Part 50, Appendix K is to ensure that analysis of fuel response to LOCAs is conservatively calculated. The approved Advanced Mark-BW Topical Report show that due to the similarities in the chemical composition of the M5 alloys and Zircaloy, the application of the Baker-Just equation in the analysis of the M5 clad fuel rods will continue to conservatively bound all post-LOCA scenarios. Thus, application of 10 CFR Part 50, Appendix K is not necessary for the licensee to achieve its underlying purpose in these circumstances. Therefore, since the underlying purpose of 10 CFR 50.46 and 10 CFR Part 50, Appendix K is achieved, the special circumstances required by 10 CFR 50.12 for the granting of an exemption from 10 CFR 50.46 and 10 CFR Part 50, Appendix K exist.

4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants Exelon, an exemption from the requirements of 10 CFR 50.46 ''that each boiling or pressurized light-water nuclear power reactor fueled with uranium oxide pellets within cylindrical Zircaloy or ZIRLO cladding must be provided with an emergency core cooling system (ECCS) that must be designed so that its calculated cooling performance following postulated loss-of-coolant accidents conforms to the criteria set forth in paragraph (b) of this section,'' and 10 CFR Part 50, Appendix K that the rate of energy release, hydrogen generation, and cladding oxidation from the metal/water reaction shall be calculated using the Baker-Just equation for Braidwood Station, Unit 1.

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 (72 FR 52585). This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 27th day of September 2007.

For the Nuclear Regulatory Commission.

Tim McGinty,

Acting Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. E7–19666 Filed 10–3–07; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

Advisory Committee on Nuclear Waste and Materials; Meeting Notice

The Advisory Committee on Nuclear Waste and Materials (ACNW&M) will hold its 183rd meeting on October 16–18, 2007, Room T–2B3, 11545 Rockville Pike, Rockville, Maryland.

Tuesday, October 16, 2007

8:30 a.m.–8:35 a.m.: Opening Remarks by the ACNW&M Chairman (Open)—The Chairman will make opening remarks regarding the conduct of today's sessions.

ACNW&M Working Group Meeting on Preclosure Seismic Analysis Evaluation at the Proposed Yucca Mountain, Nevada, Repository

Purpose

The purpose of this Working Group Meeting is to understand the regulatory