BWR OWNERS' GROUP

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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Attention: Robert B. Elliott, Branch Chief – NRR/DSS/STSB

Subject: BWROG Comments on Enforcement Guidance Memorandum (EGM) 11-003, Rev.1

References: 1) Letter BWROG Comments on Enforcement Guidance Memorandum (EGM) 11-003, March 13, 2012 (BWROG-12006)

The purpose of this letter is to transmit the corrected BWROG Comments on Enforcement Guidance Memorandum (EGM) 11-003, March 13, 2012 (BWROG-12006) document due to a typographical error.

The error is noted within Footnote 2, where the statement that "movement of "recently" irradiated fuel assemblies is permitted without Secondary Containment being Operable" should have referred to "non-recently" irradiated fuel assemblies.

Footnote 2 in the attached document has been revised, highlighted in blue, to reflect the above noted typographical error.

Please feel free to contact Tony Browning, BWROG Licensing Committee Chairman (319-851-7750, tony.browning@nexteraenergy.com), to discuss this matter further. Thank you.

Sincerely,

Frederick P. "Ted" Schiffley, II
Chairman
BWR Owners' Group

cc: C.J. Nichols, BWROG Program Manager
BWROG Licensing Committee
BWROG Outage Management Committee
Brian Mann (EXCEL Services Corp.)
Michelle Honcharik (USNRC)
Joe Golla (USNRC)

Commitments: None

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NRR

Basis for Granting Enforcement Discretion

To improve regulatory clarity for BWR plants in the interim and to allow implementation of specific interim actions as an alternative to full compliance with plant technical specifications while this improvement is under development, the staff will exercise limited enforcement discretion.

The NRC staff intends to use the enforcement discretion described in this EGM, integrated with the license amendment process, to resolve TS compliance issues created by the lack of clear regulatory guidance on the meaning of OPDRV and inconsistent licensee implementation of the plain language meaning of the term OPDRV. The NRC considers enforcement discretion related to secondary containment operability during Mode 5 OPDRV activities appropriate because the associated interim actions necessary to receive the discretion ensure an adequate level of safety by requiring licensees' immediate actions to (1) adhere to the NRC plain language meaning of OPDRV activities, (2) meet the requirements which specify the minimum makeup flow rate and water inventory based on OPDRV activities with long drain down times, (3) ensure that adequate defense in depth is maintained to minimize the potential for the release of fission products by monitoring RPV level to identify the onset of a loss of inventory event, by maintaining the capability to isolate the potential leakage paths, by prohibiting Mode 4 (cold shutdown) OPDRV activities without Secondary Containment Operable [1] and by prohibiting movement of irradiated fuel with the spent fuel pool gates removed[2], and (4) ensure that licensees follow all other Mode 5 TS requirements for OPDRV activities. During the time period of enforcement discretion, the staff will work with the BWROG to develop an improvement to the STS that licensees will be able to adopt through the license amendment process.

To be eligible for enforcement discretion, licensees must meet the minimum criteria established in this EGM as described below. In addition, each licensee that receives the discretion must submit a license amendment request (LAR) to resolve the issue for its plant which the NRC staff LAR acceptance review finds acceptable in accordance with LIC-109, "Acceptance Review Procedures." The generic solution will be a generic change to the STS, and the NRC will publish a notice of availability (NOA) for the TSs solution in the *Federal Register*. Each licensee that receives discretion must submit its amendment request within 4 months of the NRC staff's issuance of the NOA. Licensees may submit LARs to adopt the NRC-approved approach or to propose an alternative approach for their plants.

ACTIONS:

Immediate Actions

In accordance with Section 3.5, "Violations Involving Special Circumstances," of the NRC Enforcement Policy, the agency will exercise enforcement discretion and will not cite licensees for TS violations related to the conduct of OPDRV activities with secondary containment inoperable. Enforcement discretion will only be granted for

outages occurring through December 31, 2013. Enforcement discretion is appropriate because the issue has low safety significance since licensees must implement compensatory measures to provide an adequate level of safety when using the discretion provided herein. The NRC will exercise enforcement discretion only if the licensee demonstrates that it has met the following criteria during an OPDRV activity:

1. The licensee shall consider any activity that could potentially result in draining or siphoning the RPV water level below the top of the fuel, without taking credit for mitigating measures, to be an OPDRV activity. The licensee shall declare (log) that they are in an OPDRV and document the actions being taken to ensure water inventory is maintained and defense-in-depth criteria are in place prior to entering the OPDRV activity. Note: use of normal system alignments and operations, following approved plant procedures, for steady state water level control is exempted from these requirements, provided automatic isolation of the draindown path remains available.[3]

2. The licensee shall meet the following requirements, which specify the minimum makeup flow rate and water inventory:

    a) During OPDRV activities the water level shall be equal to or greater than [23][4] feet (RHR – High Water Level) over the top of the RPV flange and the gate to the spent fuel storage pool and to the upper containment cavity to dryer pool (as applicable) shall be removed.

    b) During OPDRV activities, at least one safety-related pump shall be available (preferably aligned to the division with the required operable EDG) and shall be aligned to a makeup water source with the capability to inject water equal to, or greater than, the maximum potential leakage rate from the RPV for a minimum time period of 4 hours. If at any time the water inventory requirement is not met or inventory makeup capability is lost, then actions shall be initiated to immediately suspend OPDRV activities.

    c) During OPDRV activities, the time to drain down the water inventory from the RHR- High Water Level to the top of the RPV flange shall be greater than ~~72~~ 24[5] hours based on the best estimate ~~calculated maximum~~[6] leak rate for OPDRV activities.

3. OPDRV activities shall be performed, to the maximum extent practicable, in a manner that maintains defense in depth against the release of fission product inventory. The following limitations shall apply:

    a) OPDRV activities are prohibited during Mode 4 with secondary containment inoperable.

    b) During OPDRV activities movement of [recently] irradiated fuel is prohibited with the spent fuel pool gates removed.[7]

    c) The capability to isolate the potential leakage path during OPDRV activities before the water inventory reaches the RPV flange shall be maintained.

    d) At least two independent means of monitoring the RPV water level shall be available for identifying the onset of loss of inventory events during an

OPDRV activity; at least one of these shall be an alarming indicator in the control room. One of the two indications may be by direct observation of the RPV water level, provided that such observation is continuous. It is not necessary to modify existing instrumentation to provide the required indication (e.g., recalibration to cold-shutdown conditions). The RPV water level monitoring capability shall ensure that a draining event is detected with sufficient time to (1) close at least

one secondary containment access door in each access opening before water reaches the top of the RPV flange and (2) close secondary containment equipment hatches before water reaches the top of the RPV flange.[8]

4. Licensees must follow all other TS Applicability and Action requirements for Mode 5 and Mode 5 OPDRV activities. If a licensee has a TS requirement that is more restrictive or conservative than the criteria stated herein, it must follow its TSs.

    a) Violations of other requirements (e.g., 10 CFR 50.59 and Criterion III, "Design Control," or Criterion V, "Instructions, Procedures, and Drawings," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities") that may have contributed to the above TS violation may be considered for enforcement discretion under this EGM on a case-by-case basis. Regions should consult with the Office of Enforcement in those instances.

    b) Violations associated with this enforcement discretion do not require discussion at an enforcement panel. They do require, however, the assignment of an enforcement action tracking number, and they shall be documented in an inspection report. The cover letter to the inspection report that discusses the violation should include the following or similar language: A violation of technical specifications [insert the applicable TS number] was identified. Because the violation was identified during the discretion period described in Enforcement Guidance Memorandum 11-003, the NRC is exercising enforcement discretion in accordance with Section 3.5, "Violations Involving Special Circumstances," of the NRC Enforcement Policy and, therefore, will not issue enforcement action for this violation, subject to a timely license amendment request being submitted.

Long-Term Actions

1. The BWR Owners Group has indicated that they intend to submit a proposed Technical Specifications Task Force (TSTF) Traveler that revises BWR/4 and BWR/6 OPDRV STS requirements for staff review. The generic resolution of this issue will include the development of a clear meaning of the term OPDRV within TS, additional clarification of the TS requirements for Mode 4 and Mode 5 OPDRV activities, model license amendment requests (LARs), model safety evaluations, model no significant hazards consideration determinations using the NRC consolidated line-item improvement process, issuance of NOAs for the models, and the timely processing of license amendments by the NRC staff.

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[1] This is an editorial clarification that is consistent with the EGM guidance in Item 3.a and will eliminate potential confusion in interpretation.

Annotated Pages from the NRC's
Enforcement Guidance Memorandum on Dispositioning Boiling Water Reactor Licensee Noncompliance with Technical Specification Containment Requirements during Operations with a Potential for Draining the Reactor Vessel

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[2] Because the EGM references the TS Applicability for RHR - High Water Level (LCO 3.9.8) and not ECCS Shutdown (LCO 3.5.2), the EGM does not require the spent fuel pool gates to be removed per requirement 2.a. With the spent fuel pool gates in place, an OPDRV will not drain the spent fuel pool and cannot uncover an irradiated fuel assembly being moved within the spent fuel pool. For licensees that have adopted the Alternative Source Term (10 CFR 50.67), movement of "non-recently" irradiated fuel assemblies is permitted without Secondary Containment being Operable. "Recently Irradiated" is for those plants that have adopted TSTF-51. We do not believe that it was the intent of the EGM to prohibit activities that were otherwise allowed under the plant's TS.

[3] Because control rod drives require cooling water, even during shutdown conditions, water is constantly being added to the RPV. Without the ability to remove this small amount of water (approximately 60 gpm) from the RPV, the water level would continuously rise. The normal means to remove this excess water inventory is through drainage paths below the Top of Active Fuel, which would cause this ongoing evolution to be classified as OPDRVs, per the EGM definition. Because this is essentially a continuous activity, it would preclude refueling activities from being performed per EGM requirement 3.b. Defense in depth is maintained by having the associated automatic isolation capability (instrumentation and valves) remain available.

[4] The addition of the [brackets] is intended to show that this value is plant-specific and should be the same as that used in the plant's TS for RHR - High Water Level, which is the intent of the EGM statement. Not all plants have the same 23 feet used in the EGM; this has generated numerous questions from licensees.

[5] The original 72 hours was impractical, as the resulting draindown rate was small enough that virtually all OPDRV activities would be precluded. The requested 24 hours will allow most routine activities to take place.

[6] Without detailed guidance on how to perform a "calculated maximum leak rate" (i.e., assumptions on seismic events, single active failures, loss of power, etc.) the proposed language will allow operating experience with the activity to predict an expected leak rate without having to perform a detailed engineering calculation.

[7] See Note 2 above.

[8] We are requesting a clarification of intent here. Does this last sentence establish an actual requirement that we be able to close all Secondary Containment doors, hatches, utility penetrations, etc. within this timeframe, or is this merely establishing the response time for the water level indication? If the Staff is expecting a licensee to develop a formal plan for restoration/closure of doors, hatches and utility penetrations, then this should be broken out as new item 3.e, with a clear nexus to item 2.c, and 3.d be re-written as follows: "The RPV water level monitoring capability shall ensure that a draining event is detected with sufficient time to meet 3.e below."