



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 15, 2011

Deborah Brancato, Esq.  
Staff Attorney  
Riverkeeper, Inc.  
20 Secor Road  
Ossining, NY 10562

Dear Ms. Brancato:

In an electronic transmittal addressed to Mr. R. William Borchardt, the Executive Director for Operations at the U.S. Nuclear Regulatory Commission (NRC), dated March 28, 2011, you submitted a petition request pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206 of the NRC's regulations on behalf of Riverkeeper, Inc. asking that enforcement action be taken against the licensee, Entergy Nuclear Operations, Inc. (Entergy), for Indian Point Nuclear Generating Unit Nos. 2 and 3 (IP2 and IP3). Riverkeeper requested that the NRC order Entergy: 1) to lower the licensing basis peak cladding temperature (LBPCT) of IP2 and IP3 to below 1832 °F in order to provide necessary margins of safety in the event of a loss-of-coolant accident (LOCA); 2) to determine how far below 1832 °F the LBPCTs of IP2 and IP3 need to be lowered to provide necessary margins of safety; 3) to lower the LBPCTs of IP2 and IP3 to 1600 °F until conservative LBPCTs are determined; and 4) to demonstrate that IP2 and IP3 emergency core cooling systems (ECCS) would effectively quench the fuel cladding in the event of LOCAs. As the basis for your request, Riverkeeper's representatives reviewed experimental data from which they concluded that IP2's and IP3's LBPCTs of 1937 °F and 1961 °F, respectively, do not provide a necessary margin of safety, primarily due to the autocatalytic properties of the zirconium-water reaction associated with the fuel cladding. Your petition request was referred to the Office of Nuclear Reactor Regulation's (NRR's) Petition Review Board (PRB) and is publicly available in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML110890956.

On April 18, 2011, representatives of Riverkeeper participated in a teleconference with the PRB and provided information in support of the petition. The transcript of that teleconference is publicly available in ADAMS under Accession No. ML111570242. Mr. Mark Leye, who had participated in the teleconference on April 18, 2011, as a representative for Riverkeeper, submitted information to the PRB on the use of hydrogen recombiners by email dated April 19, 2011. His document is publicly available in ADAMS under Accession No. ML111580398.

Following the April 18, 2011, teleconference, the PRB met internally to discuss the petition. Specifically, the PRB reviewed the Request for Action in Section I of the petition. In accordance with NRC Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 petitions," the PRB determined that there were insufficient facts provided to warrant that the NRC take action to require IP2 and IP3 to lower their LBPCTs pending resolution of the 10 CFR 2.206 petition. On April 19, 2011, the NRC's petition manager informed you of that decision.

During subsequent internal PRB meetings, the PRB considered if the petition request met the criteria for acceptance under 10 CFR 2.206, using the guidance in MD 8.11. The PRB confirmed that the IP2 and IP3 designs meet current NRC requirements in 10 CFR 50.44 for

control of combustible gases such as hydrogen. The PRB's initial recommendation was that the petition did not meet the MD 8.11 criteria for accepting a petition for review, because there is another NRC proceeding (rulemaking) in which the petitioners could be a party and through which the petitioner's concerns relating to ECCS requirements in 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," could be addressed. The NRC is already considering two petitions for rulemaking, PRM 50-93 and PRM 50-95, regarding the adequacy of NRC's ECCS requirements in 10 CFR 50.46.

On June 7, 2011, the petition manager informed you of the PRB's initial recommendation and offered you another opportunity to address the PRB. On July 11, 2011, representatives of Riverkeeper participated in another teleconference with the PRB, where the initial recommendation was discussed and they provided additional information in support of the petition. The transcript of that teleconference is publicly available in ADAMS under Accession No. ML111990427. Following that teleconference, Mr. Leyse submitted notes and references for some of the material discussed during the teleconference. That information is publicly available in ADAMS under Accession No. ML112020054.

The NRC staff considered the additional information provided on July 11, 2011, and concluded that your petition does not meet the criteria for review under 10 CFR 2.206 because the safety concerns that you raised are generic, and if determined to have merit would apply to all power reactors and would require revisions to existing NRC rules. Revisions to NRC rules are properly handled through a petition for rulemaking. Petitions for rulemaking are submitted in accordance with 10 CFR 2.802, "Petition for rulemaking." NRC rule 10 CFR 50.46 sets forth the NRC requirements applicable to ECCS performance. The licensing basis accident analyses for IP2 and IP3 show that the ECCS are capable of maintaining the LBPCT below the regulatory limit of 2200 °F. The NRC staff has previously reviewed and accepted the licensing basis accident analyses for IP2 and IP3. The PRB finds no evidence that IP2 or IP3 are in violation of 10 CFR 50.46. As IP2 and IP3 are in compliance with 10 CFR 50.46 and 10 CFR 50.44, the PRB concludes that there is adequate protection of public health and safety.

The PRB has forwarded the information in your 10 CFR 2.206 petition to the rulemaking branch responsible for PRM 50-93 and 50-95, so that any additional information contained in this petition relating to the adequacy of NRC's ECCS requirements in 10 CFR 50.46 can be considered during the review of the PRMs.

Sincerely,

A handwritten signature in black ink, appearing to read 'F. Brown', with a long horizontal line extending to the right.

Frederick D. Brown, Director  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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Sincerely,

/ra/

Frederick D. Brown, Director  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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Package: ML111990519 Incoming: ML110890956 Transcript1: ML111570142

Transcript2: ML111990427 Letter: ML111990531 \*Via email

OFFICE	LPL1-1/PM	LPL1-1/LA	LPL1-1/BC*	2.206 Coord
NAME	JBoska	SLittle	NSalgado	TMensah
DATE	7/20/11	7/20/11	7/20/11	7/20/11
OFFICE	DD/DIRS			
NAME	FBrown			
DATE	8/15/11			

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Letter to Deborah Brancato from Frederick D. Brown dated August 15, 2011

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