



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

September 27, 2017

Mr. Richard Ayres
Attorney for Friends of the Earth
Ayres Law Group, LLP
1707 L Street, NW, Suite 850
Washington, DC 20036

Dear Mr. Ayres:

This letter is in response to the petition submitted by Friends of the Earth (FOE), as co-petitioned by Nuclear Information Resource Service and Hudson River Sloop Clearwater (the petitioners), dated May 24, 2016,¹ addressed to the U.S. Nuclear Regulatory Commission (NRC or the Commission) concerning degraded baffle-former bolts at Indian Point Nuclear Generating Unit Nos. 2 and 3 (Indian Point 2 and 3). As the point of contact for the petitioner, you asked that correspondence be addressed to you. The petition was referred to the Office of Nuclear Reactor Regulation (NRR) for review in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, "Requests for action under this subpart." The process for reviewing 2.206 petitions is contained in NRC Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions."²

The petitioners requested the Commission to (1) immediately issue an order preventing restart of Indian Point 2 until the Commission is satisfied that the unit can be safely restarted and (2) order the immediate shutdown of Indian Point 3 so that the baffle-former bolts in that unit may be inspected. As the basis for this request, the petition stated that there is increased risk to public health and safety following Entergy's discovery of damaged, degraded, or otherwise failed baffle-former bolts at Indian Point 2 and 3 and that the NRC's response to these deficiencies has been inadequate.

On June 3, 2016, the petitioners' request for immediate action was reviewed by members of the Petition Review Board (PRB) and advisors, which included staff from NRR, Office of the General Counsel, Region I office, and resident inspectors at Indian Point. After its review and discussion, the PRB determined that there were no immediate safety concerns that would adversely impact the public's health and safety; therefore, the PRB denied the petitioners' request for immediate action. In an e-mail dated June 3, 2016,³ the petition manager informed you of this decision, described the 10 CFR 2.206 process, and offered the petitioners an opportunity to address the PRB by a meeting or teleconference prior to making its initial recommendation.

On June 14, 2016,⁴ you indicated that the petitioners objected to the PRB's denial of their request for immediate action, as well as the processing of the petition under 10 CFR 2.206; however, the petitioners were also agreeable to address the PRB by telephone.

In your e-mail dated July 29, 2016,⁵ you informed the petition manager of FOE's filing of a Freedom of Information Act (FOIA) request dated May 2, 2016 (FOIA/PA-2016-0457),⁶ requesting copies of a number of documents related to the issues presented in the petition. You

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML16148A212

² ADAMS Accession No. ML041770328

³ ADAMS Accession No. ML16155A451

⁴ ADAMS Accession No. ML17221A030

⁵ ADAMS Accession No. ML17257A000

⁶ ADAMS Accession No. ML16124A017

requested to defer the petitioners' presentation to the PRB until FOE received a complete response to its FOIA request. The petition manager acknowledged your request to defer the presentation until a later date and indicated that he would coordinate with the FOIA office as appropriate to provide status of the FOIA response.

From July 29, 2016, to May 12, 2017, the FOIA office issued six interim responses to FOE's FOIA request.⁷ On June 13, 2017, the PRB discussed the path forward for proceeding with review of the petition and made its initial recommendation to not accept the petition for review under 2.206 because the underlying requested actions have occurred without enforcement (i.e., completion of baffle bolt inspection and replacement during the Indian Point 2 and 3 refueling outages in June 2016 and June 2017, respectively). The PRB also considered it prudent to move forward with the petitioners' presentation to address the PRB because there was no basis to continue to defer a decision until a FOIA request was complete. You were informed of this proposed determination during a phone call with the petition manager on July 7, 2017.

Additionally, you were informed that while the FOIA office had not fully completed FOE's FOIA request, it considered the review as being nearly complete, given the release of the six aforementioned partial responses. The petition manager offered to reinitiate the scheduling of the petitioners' presentation to the PRB and provided several dates to meet with the PRB in an e-mail dated July 7, 2017.⁸ The petitioners did not request a rescheduled date nor provide a response; therefore, the PRB considered this as declining to address the PRB.

The PRB notes that the FOIA office recently issued its seventh interim response on July 25, 2017,⁹ in which it determined that the remaining responsive records were deemed duplicates of documents that had already been provided in the previous six interim releases. Therefore, the FOIA office considers its seventh response as its final response and FOIA/PA-2016-0457 as closed.

On August 8, 2017, the petition manager contacted you by phone and informed you that the PRB reviewed the petition in accordance with MD 8.11 and made the initial recommendation that the petition met the criteria for rejection per MD 8.11, Part III, C.2, "Criteria for Rejecting Petitions Under 10 CFR 2.206," on the basis that the issues raised in the petition "have already been the subject of NRC staff review and evaluation either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question." During that conversation, you were offered an opportunity to address the PRB to provide any relevant additional explanation or support for the request in light of the PRB's recommendations. You indicated on that call that the petitioners did not desire to address the PRB or provide any additional information supporting its request. As such, the PRB's final determination is to not accept the petition for review under the 10 CFR 2.206 process because the petition meets the criteria for rejection in accordance with MD 8.11, Part III, C.2. Additional discussion is provided below in support of the PRB's final determination.

Discussion

In response to the Indian Point 2 baffle-former bolt degradation, the NRC conducted a range of baseline reactor oversight process inspections to independently assess the adequacy of visual and ultrasonic bolt examinations, observe bolt replacement activities, and review Entergy's

⁷ ADAMS Package Accession Nos. ML16222A421, ML16259A086, ML16349A208, ML16363A245, ML17066A334, and ML17170A280

⁸ ADAMS Accession No. ML17221A012

⁹ ADAMS Accession No. ML17207A084

evaluations of Indian Point 2 and 3 corrective actions. Based on those reviews, the NRC concluded that Indian Point Unit 2 was safe to operate until at least its next refueling outage. In addition, Entergy performed an operability determination to evaluate the impact of baffle-former bolt degradation at Indian Point 3. NRC inspectors reviewed Entergy's evaluations and concluded that these evaluations provided reasonable assurance that the Indian Point 3 baffle-former bolts would perform as required until that planned refueling outage in spring 2017, at which time Entergy had planned to examine the bolts. The results of the NRC's inspections for Indian Point 2 and 3 are found in Revised Integrated Inspection Report 05000247/2016002 and 05000286/2016002, dated March 30, 2017.¹⁰

The NRC staff evaluated the degraded baffle-former bolts issue for potential reduction in safety margin using NRR Office Instruction LIC-504, Revision 4, "Integrated Risk-Informed Decision-Making Process for Emergent Issues."¹¹ The LIC-504 process guides the decision on whether immediate regulatory action, such as ordering a plant shutdown, is required. The staff performed a risk-informed evaluation of the safety significance of the recently identified reactor vessel baffle-former bolt degradation, and completed its review on October 20, 2016.¹² As discussed in that review, the staff identified the facilities of greatest concern, assessed the need for immediate shutdown of those facilities, and prepared available options based upon currently known information. Based on a review of operating experience, the staff concluded that the potential for significant bolt degradation is most susceptible at Westinghouse 4-loop designs with a downflow configuration and Type 347 stainless steel bolts, which include Indian Point 2 and 3. The staff also concluded that the degradation of baffle-former bolts did not represent an imminent safety hazard and, as a result, immediate plant shutdowns to inspect and repair degraded baffle-former bolts were not necessary. Furthermore, it was the staff's overall recommendation that the plants most susceptible to baffle-former bolt degradation be permitted to operate until their next scheduled refueling outage, at which time they will perform visual and UT inspections of the baffle-former bolts, because the risk of core damage from baffle-former bolt degradation over this time period was found to be low.

In response to the baffle former bolt degradation issue, the NRC staff worked with the Electric Power Research Institute (EPRI) Materials Reliability Program (MRP) working group to understand the extent of this condition within the industry. On July 19, 2016, a public meeting was held with representatives of the EPRI MRP working group, industry, and the NRC staff to discuss the inspections and operating experience of baffle-former bolt degradation. The meeting summary and meeting handouts are available in ADAMS.¹³

Additionally, the MRP convened a special focus group on May 16, 2016, to support an integrated approach among industry organizations and address the recent operating experience with baffle-former bolts. The baffle-former bolt focus group has issued two letters dated July 27, 2016, and March 15, 2017, transmitting interim guidance for all Westinghouse-design plants. The interim guidance calls for accelerated initial inspection schedules for downflow plants (Tier 1 and Tier 2) and places limits on the maximum time to reinspect the baffle-former bolts following the initial inspection, depending on the findings of the initial inspection. The interim guidance letters modified the guidance for baffle-former bolt inspection in MRP-227-A and MRP-227, Revision 1, "Materials Reliability Program: Pressurized Water Reactor [PWR] Internals Inspection and Evaluation Guidelines." The NRC staff plans to document its position in the interim guidance in its safety evaluation of MRP-227, Revision 1, which is currently under review. The focus group will continue working to establish an improved fundamental

¹⁰ ADAMS Accession No. ML17089A245

¹¹ ADAMS Accession No. ML14035A143

¹² ADAMS Accession No. ML16225A341

¹³ ADAMS Package Accession No. ML16208A001

understanding of the degradation mechanisms and develop potential changes to the MRP-227 inspection guidance as needed.

On July 12, 2017, and July 13, 2017, the NRC staff met with industry representatives from EPRI and the PWR Owner's Group to discuss the ongoing industry and NRC activities to address baffle-former bolt degradation in PWRs, as well as the specific review activities associated with MRP-227, Revision 1. All information related to the meeting is publicly available.¹⁴

In summary, the NRC staff has concluded that baffle-former bolt degradation observed at operating facilities to date, including Indian Point 2 and 3, does not represent an immediate safety concern and does not warrant the immediate shutdown of any plant. The NRC staff will continue to monitor baffle-former bolt inspections and will ensure the condition is suitably understood and addressed and that appropriate regulatory actions are taken.

In conclusion, and in accordance with the criteria in MD 8.11, the PRB's final determination is that your petition does not meet the criteria for consideration under 10 CFR 2.206, because it raises issues that have already been reviewed, evaluated, and resolved by the NRC. Therefore, the PRB has concluded that your petition meets the criteria for rejection in accordance with MD 8.11, Part III, C.2.

This letter closes all NRC actions associated with your 2.206 petition. If you have any questions, please feel free to contact Richard Guzman at (301) 415-1030 or by e-mail to Richard.Guzman@nrc.gov.

Sincerely,



Eric J. Benner, Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

cc: Mr. Anthony J. Vitale (w/copy of petition)
Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

Additional Distribution via Listserv

¹⁴ ADAMS Package Accession No. ML17158B164

SUBJECT: RESPONSE/CLOSURE LETTER TO FRIENDS OF THE EARTH 10 CFR 2.206
 PETITION REGARDING DEGRADED BAFFLE-FORMER BOLTS AT
 INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3 DATED
 SEPTEMBER 27, 2017

DISTRIBUTION: LTR-16-0297-1

PUBLIC	RidsRgn1MailCenter Resource	RidsDeEvib Resource
RidsNrrDorl Resource	RidsNrrDorlLpl1 Resource	MBanic, NRR
RidsNrrPMIndianPoint Resource	RidsNrrLALRonewicz Resource	TClark, EDO
RidsACRS_MailCTR Resource	RidsOpaMail Resource	RidsEdoMailCenter Resource
RidsSecyMailCenter Resource	RidsOcaMailCenter Resource	RidsNrrDorlLspb Resource
RidsNrrDss Resource	JBowen, OEDO	JGreives, R-I
LJarriel, OE	DWillis, OE	TSetzer, R-I

ADAMS Accession No.: ML17257A172 PKG ML16148A213 *by e-mail

OFFICE	NRR/DORL/LPL1/PM	NRR/DORL/LPL1/LA	NRR/DORL/LSPB/PM*	NRR/DORL/LPL1/BC
NAME	RGuzman	LRonewicz	MBanic	JDanna
DATE	09/15/2017	09/15/2017	09/15/2017	09/27/2017
OFFICE	NRR/DE/EVIB/BC*	RI/DRP/BR2/BC*	OGC - NLO	NRR/DORL/DD
NAME	DRudland	JGreives	CHair	EBenner
DATE	09/21/2017	09/25/2017	09/27/2017	09/27/2017

OFFICIAL RECORD COPY