



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

Region III  
2443 Warrenville Road, Suite 210  
Lisle IL 60532-4352

April 4, 2013

EA-12-272

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Dominion Energy Kewaunee, Inc.  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

**SUBJECT: FINAL SIGNIFICANCE DETERMINATION OF A WHITE FINDING WITH  
PROPOSED FOLLOWUP AND NOTICE OF VIOLATION; NRC INSPECTION  
REPORT NO. 05000305/2013504; KEWAUNEE POWER STATION**

Dear Mr. Heacock:

This letter provides you the final significance determination of the preliminary White finding discussed in our previous communication dated January 24, 2013, which included U.S. Nuclear Regulatory Commission (NRC) Inspection Report No. 05000305/2012503. The finding involved the unidentified loss of the system particulate, iodine, and noble gas (SPING) indication on the plant process computer system (PPCS) and Radserv stations from February 28, 2011, to March 30, 2011, which degraded Kewaunee Power Station's ability to classify and declare general emergencies (emergency action level RG1.1) or site area emergencies (emergency action level RS1.1).

At your request, a Regulatory Conference was held on March 12, 2013, to discuss your views on this issue. A copy of your staff's presentation was previously placed in the NRC's Agencywide Documents Access and Management System (ADAMS) at accession number ML13066A331. During the meeting, your staff described their assessment of the significance of the finding, and the corrective actions taken to resolve it, including the root cause evaluation of the finding. Your staff attributed the root causes to absence of a programmatic requirement to surveil the PPCS and Radserv indications in either the main control room or the radiation protection office, respectively. Your staff also indicated that the system platform for the SPING unit was obsolete and difficult to maintain. A partial list of attendees at this meeting is included in Enclosure 1.

During the meeting, your staff agreed that there was a performance deficiency, but disagreed with the significance of the issue. Also, your staff believed that the associated violation should be cited against Title 10 of the Code of Federal Regulations (10 CFR) Section 50.47(b)(8) instead of 10 CFR 50.47(b)(4) as the NRC proposed in Inspection Report No. 05000305/2012503.

Specifically, your staff stated that the unit was in a refueling outage when the indication initially failed and entered Mode 3, the mode of operation that corresponded to the reactor being at full temperature and pressure, only six days before the failure was identified by the system engineer and corrected. Also, your staff stated that the issue was a hardware failure that should be considered under 10 CFR 50.47(b)(8), similar to another licensee where a radiation detector was out-of-service for an extended period of time. Although indications of the failure were

available as early as February 28, 2011, your staff maintained that the time of discovery was March 30, 2011, when the system engineer recognized the failure and took actions to have the Radserv platform rebooted. Your staff stated that the EP Significance Determination Process (SDP) White example threshold required greater than seven days from time of discovery, and that not all hardware failures were under a licensee's control.

The NRC considered the information your staff provided. During the conference, the NRC staff confirmed that the SPING communication and indication failure was initially observed on the plant process computer on February 28, 2011. The NRC also confirmed that indication of the Radserv platform failure was readily available to your radiation protection staff during the entire 30 days the system was out-of-service. As stated in your emergency plan, emergency action levels RG1.1 and RS1.1 are applicable in Modes 1 through 6. Therefore, the NRC concluded that you had sufficient indication and information available to discover the failure such that it was reasonably under your control, and that the entire 30 day time period needed to be considered.

The NRC also considered your staff's contention that the issue was only a hardware issue. During the conference, your staff mentioned that another licensee received a green finding for emergency equipment being out-of-service for an extended period of time. The NRC provided an explanation during the conference that the situations were different in that the other licensee had a degraded emergency action level scheme independent of the malfunctioning equipment issue. The NRC reviewed the issues involved and determined that this specific licensee also received two White findings, one against 10 CFR 50.47(b)(4) and the other against 10 CFR 50.47(b)(9), along with a SL III violation of 10 CFR 50.72(b)(3)(xiii). When the NRC evaluated the issue regarding the radiation detector, the NRC recognized that the risk significant planning standard (10 CFR 50.47(b)(4)) had already been degraded, which was cited as a stand-alone violation, and determined that the radiation detector issue was an independent equipment issue. Therefore, the NRC determined that a separate finding of 10 CFR 50.47(b)(8) was appropriate for that licensee. The NRC does agree that there was an equipment issue at Kewaunee, as well as an emergency classification standards issue involved in the finding. Therefore, it would be appropriate for the NRC to include both 10 CFR 50.47(b)(4) and 10 CFR 50.47(b)(8) in the violation. After consultation with the Director of the Office of Enforcement, we have incorporated both requirements into the violation.

The NRC also questioned how your staff would classify and declare general or site area emergencies under emergency action levels RG1.1 and RS1.1 without being able to use the SPING indication. Your staff provided some general statements, but acknowledged that general or site area emergency declaration and classification would most likely have been done through alternative emergency action levels. In making its significance determination, the NRC considered that the failed equipment rendered emergency action levels RG1.1 and RS1.1 ineffective. The NRC also took into account the fact that Kewaunee would be able to classify and declare a site area emergency or a general emergency based on alternative emergency action levels, albeit in a degraded manner.

After considering the information developed during the inspection and the additional information you provided at the regulatory conference, the NRC has concluded that the finding is appropriately characterized as White, a finding with low to moderate safety significance that may require additional NRC inspections.

You have 30 calendar days from the date of this letter to appeal the staff's determination of significance for the identified White finding. An appeal must be sent in writing to the Regional Administrator, Region III, 2443 Warrenville Road, Lisle, IL 60532-4352, and must address the criteria in NRC Inspection Manual Chapter 0609, Attachment 2, "Process for Appealing NRC Characterization of Inspection Findings (SDP Appeal Process)."

The NRC has also determined that a violation was associated with the finding, as cited in the Notice of Violation (Notice) provided in the enclosure. The circumstances surrounding the violation were described in detail in NRC Inspection Report No. 05000305/2012503. In accordance with the NRC Enforcement Policy, the Notice is considered escalated enforcement action because it is associated with a White finding.

The NRC has concluded that information regarding the reasons for the violation, the corrective actions taken and planned to be taken to correct the violation, and the date when full compliance was achieved, is already adequately addressed on the docket in NRC Inspection Report No. 05000305/2012503. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

As a result of our review of Kewaunee's performance, including this White finding, we have assessed the plant to be in the Regulatory Response column of the NRC's Action Matrix, effective the 4<sup>th</sup> quarter of 2012. Therefore, we plan to conduct a supplemental inspection using Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," when your staff has notified us of your readiness for this inspection. This inspection procedure is conducted to provide assurance that the root cause and contributing causes of risk significant performance issues are understood, the extent of condition and the extent of cause are identified, and the corrective actions are sufficient to prevent recurrence.

For administrative purposes, this letter is issued as NRC Inspection Report 05000305/2013504. Additionally, apparent violation (AV) 05000305/2012503-01 is now considered to be violation (VIO) 05000305/2012503-01.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from ADAMS which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent

D. Heacock

-4-

possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions>.

Sincerely,

***/RA by C. Pederson for/***

Charles A. Casto  
Regional Administrator

Docket No. 50-305  
License No. DPR-43

Enclosures:

1. Regulatory Conference List  
of Attendees
2. Notice of Violation

cc: Distribution via ListServ

REGULATORY CONFERENCE  
LIST OF ATTENDEES

Dominion

A. J. (Skip) Jordan, Site Vice President  
Paul Blasioli, Director of Nuclear Protection Services & Emergency Preparedness  
Jeffrey Stafford, Director of Safety and Licensing  
Brian Harris, Emergency Preparedness Manager  
Bradly McMahan, Operations Manager  
Clarence Gum, Manager Nuclear Fleet Emergency Preparedness  
Richard Repshas, Licensing Supervisor (via phone)

U.S. Nuclear Regulatory Commission

Cynthia Pederson, Deputy Regional Administrator, Region III  
Gary Shear, Director, Division of Reactor Safety (DRS)  
Joseph Maynen, Acting Branch Chief, Plant Support Branch, DRS  
James Beavers, Emergency Preparedness Inspector, Plant Support Branch, DRS  
Stephen LaVie, Senior Emergency Preparedness Specialist, Inspection and Regulatory Improvement Branch, Office of Nuclear Security and Incident Response (NSIR)  
Steven Orth, Enforcement Officer  
Robert Carpenter, Enforcement Specialist, Office of Enforcement  
Mark Rubic, Acting Regional Counsel  
Robert Jickling, Senior Emergency Preparedness Inspector, Plant Support Branch, DRS  
Robert Krsek, Senior Resident Inspector, Kewaunee, DRP (via phone)  
Kevin Barclay, Resident Inspector, Kewaunee, DRP (via phone)  
Nirodh Shah, Project Engineer, Branch 2, DRP  
Joseph Mancuso, Reactor Engineer, Branch 2, DRP  
Michael Ziolkowski, Reactor Engineer, Branch 2, DRP  
Jakob Steffes, Reactor Engineer, Branch 6, DRP  
Harral Logaras, Government Liaison  
Patricia Loughheed, Senior Enforcement Coordinator

Public

Susan Meilahan, Wisconsin Emergency Management  
Jeffery Kitsembel, Public Service Commission of Wisconsin  
Kerrie DeFusco, Prairie Island Emergency Preparedness Manager, Excel Energy

## NOTICE OF VIOLATION

Dominion Energy Kewaunee, Inc  
Kewaunee Power Station

Docket No. 50-305  
License No. DPR-43  
EA-12-272

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted from December 10 to 17, 2012, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q)(2) requires that a holder of a nuclear power reactor operating license follow and maintain the effectiveness of an emergency plan that meets the requirements in Part 50, Appendix E and the planning standards of 10 CFR 50.47(b).

10 CFR 50.47(b)(4) states "A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures."

10 CFR 50.47(b)(8) states "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."

Contrary to the above, from February 28, 2011, until March 30, 2011, Kewaunee Power Station failed to follow and maintain in effect an emergency plan that used a standard emergency classification and action level scheme because adequate emergency equipment to support the emergency response was not maintained. Specifically, Kewaunee Power Station failed to identify a loss of the Auxiliary and Reactor Building system particulate, iodine, and noble gas (SPING) monitor indication on the plant process computer system and Radserv stations, which resulted in the failure to have methods or equipment in place necessary to monitor system and effluent parameters identified in emergency action levels RG1.1, General Emergency, and RS1.1, Site Area Emergency.

This violation is associated with a White Significance Determination Process finding.

The NRC has concluded that information regarding the reasons for the violation, the corrective actions taken and planned to be taken to correct the violation, and the date when full compliance was achieved, is already adequately addressed on the docket in NRC Inspection Report No. 05000305/2012503. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201, if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA-12-272" and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352, and a copy to the NRC Resident Inspector at the Kewaunee Nuclear facility, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 4<sup>th</sup> day of April 2013

D. Heacock

-4-

possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions>.

Sincerely,

*/RA by C. Pederson for/*

Charles A. Casto  
Regional Administrator

Docket No. 50-305  
License No. DPR-43

Enclosures:

1. Regulatory Conference List  
of Attendees
2. Notice of Violation

cc: Distribution via ListServ

FILE NAME: G:\ORAI\IICS\ENFORCEMENT\Cases\Enforcement Cases 2012\EA-12-272 Kewaunee EP\EA-12-272 Kewaunee Final Significance Determination - FINAL.docx

OFFICE	RIII	RIII	RIII	D:OE	RIII	RIII
NAME	Lougheed	Funk JMaynen for	Shear	Zimmerman <sup>1</sup> RCarpenter(for)	Orth	Casto
DATE	03/14/13	03/14/13	03/19/13	03/25/13	04/02/13	04/04/13

**OFFICIAL RECORD COPY**

---

1 OE concurrence received via e-mail from R. Carpenter on March 25, 2013.



Letter to David Heacock from Charles A. Casto dated April 4, 2013

SUBJECT: FINAL SIGNIFICANCE DETERMINATION OF A WHITE FINDING WITH  
PROPOSED FOLLOWUP AND NOTICE OF VIOLATION; NRC INSPECTION  
REPORT NO. 05000305/2013504; KEWAUNEE POWER STATION

DISTRIBUTION:

RidsSecyMailCenter Resource  
OCADistribution  
Bill Borchardt  
Michael Johnson  
Roy Zimmerman  
Nick Hilton  
Robert Carpenter  
Chuck Casto  
Cynthia Pederson  
Marvin Itzkowitz  
Mary Spencer  
Eric Leeds  
Jennifer Uhle  
Mandy Halter  
James Wiggins  
Robert Lewis  
Shyrl Coker  
Daniel Holody  
Carolyn Evans  
Heather Gepford  
Holly Harrington  
Hubert Bell  
Cheryl McCrary

Seth Coplin  
John Cassidy  
RidsNrrPMKewaunee Resource  
RidsNrrDorLpl3-1 Resource  
RidsNrrDirslrib Resource  
Steven Orth  
Allan Barker  
Harral Logaras  
Viktoria Mitlyng  
Prema Chandrathil  
Patricia Lougheed  
Paul Pelke  
Magdalena Gryglak  
Sarah Bahksh  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
OEMAIL Resource  
OEWEB Resource  
ROPassessment.Resource@nrc.gov