UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

August 23, 2007

R. T. Ridenoure, Vice President
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 550
Fort Calhoun, NE 68023-0550

SUBJECT: ACKNOWLEDGMENT OF RECEIPT OF OMAHA PUBLIC POWER DISTRICT'S LETTER OF REPLY TO A NOTICE OF VIOLATION (EA-07-047) - FORT CALHOUN STATION

Dear Mr. Ridenoure:

This acknowledges receipt of the June 28, 2007, Omaha Public District (OPPD) reply (ADAMS ML071860139) to our letter and notice of violation, dated May 29, 2007, (ADAMS ML071500074). The violation involved the failure to have procedures appropriate to the circumstances for maintenance activities involving Containment Spray Header Isolation Valve HCV-345 at Fort Calhoun Station. Thank you for your response and the discussion of your current and ongoing corrective actions to prevent recurrence. Your changes to procedures and post-maintenance testing address the causes of the violation.

In the June 28, 2007, letter, OPPD raised two concerns. The first was a lapse of communication at a critical point in the significance determination process. The second was the NRC changed position on some of the initial areas of agreement as documented in our inspection report and preliminary risk assessment, dated March 2, 2007, (ADAMS ML070640155). In the letter, your staff further indicated that they would have presented information at the regulatory conference to support OPPD's position had they known the NRC disagreed with OPPD's position on these areas. On July 3, 2007, I discussed these concerns with you and requested you or your staff provide specific details regarding these concerns to the NRC for our review to determine if our violation and risk assessment should be changed. On July 16, 2007, Mr. Jeff Reinhart, of your staff, provided the requested information in an e-mail message to me (Enclosure).

We have reviewed the information provided and concluded that the information does not change our final decision and the significance of the finding remains the same as indicated in our May 29, 2007, letter. We also reviewed our actions and determined that we did follow our process in considering the information you provided us during our review of this case before, during and after the regulatory conference.

With regard to your concern about a lapse of communication at a critical point in our process, we reviewed the process to determine lessons learned for the NRC and to determine whether this impacted the outcome of our final decision. We determined the following: (1) we did change certain aspects of our preliminary risk assessment after our discussions during the regulatory conference as suggested in the June 28, 2007, letter and July 16, 2007, e-mail,

(2) This practice is consistent with the procedure described in our NRC Inspection Manual Chapter 0609, "Significance Determination Process." In fact, this action of making changes at this point in the process is important in order to factor any new information into our final assessment, (3) The changes were based on the information provided by OPPD during the conference and in your April 23, 2007, letter (ADAMS ML07132002), and (4) There was little communication with you about our deliberations and consideration of the significance of the finding between the regulatory conference and our final decision. Our conclusion is that there was no need to communicate further, since we understood your position and had all the information we needed to make a final decision on the risk significance of the violation or finding.

To address your concern about additional information that you would have provided at the regulatory conference if you had known about our changed position, we reviewed our actions related to the final significance determination with a focus on whether the significance would change, based on the information provided in your June 28, 2007, letter and July 16, 2007, e-mail. We have concluded that our determination was valid and would not be changed. Your letter and e-mail discussed two concerns with our evaluation.

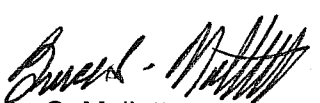
These two concerns involved our evaluation of the performance shaping factor of "complexity" in the "diagnosis" component of human error probabilities and our evaluation of a human error probability following a fire-induced loss of offsite power. In our preliminary significance determination, a single human performance task (with a diagnosis and action component) was modeled and assessed. This was the task of diagnosing and terminating the loss of reactor coolant system inventory you referred to in your email. We agreed with your staff that the complexity performance shaping factor associated with the diagnosis component of this task was appropriately characterized as "obvious diagnosis." At the regulatory conference, your staff presented an analysis that consisted of four new human performance tasks. In our review of this analysis and development of our final significance determination, we agreed with your staff's evaluation (obvious diagnosis) of the complexity performance shaping factor for the diagnosis component of the first task (operator diagnosis of a loss of inventory with a dry sump initially). For the second task (operator diagnosis of a loss of inventory, given that an event adding water to the containment sump has already occurred) your staff also concluded that the complexity performance shaping factor of the diagnosis component was "obvious diagnosis." In this case, however, we disagreed. We concluded the diagnosis of a loss of inventory when the sump was filled with water, although not difficult for your operators, was more complex than diagnosis of a loss of inventory if the sump was dry. Therefore, we concluded the complexity performance shaping factor was best characterized as "nominal." The remaining two human performance tasks involved evaluating operator ability to diagnose and implement mitigation strategies (increasing high-pressure safety injection flow or isolating the flow diversion path). Neither of these human performance tasks was the subject of concern in the July 16, 2007, e-mail.

As previously stated, our letter of March 2, 2007, specifically requested that OPPD provide its assessment of external initiating event contribution to the significance of the finding. At the regulatory conference, OPPD presented information regarding its assessment of external initiators. During the conference, the NRC had a number of questions and requested additional information regarding fire risk, which was provided by OPPD on April 23, 2007. After

considering the information provided at the conference and the information subsequently provided by OPPD, the NRC made an assessment of the contribution of fire risk to the total risk associated with the underlying performance deficiency. The enclosure questions our application of a multiplication factor of 10 to the human error probability of human performance tasks after a fire-induced loss of offsite power has occurred. Omaha Public Power District's assessment was that no equipment inside the plant would be affected by smoke or water. Also, the impact on the control room operating crew would be similar to a prolonged non-fire related loss of offsite power. As described in our final significance letter to OPPD, we applied the guidance of NUREG/CR-6850, "EPRI/NRC-RES Fire PRA Methodology for Nuclear Power Facilities" in our evaluation of your information. We concluded our use of the multiplication factor of 10 was consistent with NUREG/CR-6850. In post-fire human reliability analysis, there may be differences between a human performance task modeled in an internal events assessment and a post-fire analysis assessment because of new challenges to the operators. These challenges can result from fire-induced cable failures, spurious operations and indications, onsite and offsite fire brigade response and communications, etc. As described in NUREG/CR-6850, in order to account for effects of potential fire brigade interaction and other minor increased workload/distraction issues, the human error probability is multiplied by a factor of 10. This human reliability analysis screening value is what is currently being implemented for those plants developing detailed fire probabilistic risk assessments for their facilities.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,



Bruce S. Mallett
Regional Administrator

Docket: 50-285
License: DRP-40

Enclosure: Memo from Mr. Jeff Reinhart

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From: "REINHART, JEFF A" <jareinhart@oppd.com>
To: <BSM1@nrc.gov>
Date: 07/16/2007 7:05:32 PM
Subject: Clarification of June 28, 2007 OPPD Letter

Bruce:

The purpose of the e-mail is to clarify the intent of, and provide additional information regarding my statements in the cover letter for the 6/28/07 OPPD response to NOV EA-07-047. As I'm sure you recall, you discussed this letter in a recent meeting with Gary Gates and Ross Ridenoure. During the meeting my understanding is that you questioned the tone and intent of the below statements in the letter, which I acknowledge had a negative flavor:

* "While communication and interaction between NRC and OPPD on this issue were generally very good, there was a lapse in communication effectiveness at a critical point in the process."

* "Had OPPD known that the NRC disagreed with the position on those areas, information would have been presented at the regulatory conference to support OPPD's position."

* "OPPD is considering working with the Nuclear Energy Institute (NEI) to improve the ROP such that similar situations can be avoided in the future."

Use of the Significance Determination Process (SDP) for the HCV-345 issue and preparation for the regulatory conference was a unique and challenging experience for the OPPD team at Fort Calhoun (FCS). The extensive communications between PRA analysts at the NRC and the PRA analysts at FCS were very good prior to the regulatory conference, identifying areas of agreement and disagreement in the PRA inputs. OPPD focused on the areas of disagreement during the regulatory conference, to ensure that the NRC understood the bases for our positions.

However, we realize that the process involves a final assessment and determination by NRC management based on all available information. After the regulatory conference, new or different specific PRA inputs with significant multipliers were apparently included, but OPPD had no opportunity for discussion or rebuttal. These inputs were:

Enclosure

* "Complexity" is one of the performance shaping factors (PSFs) associated with diagnosing and terminating loss of RCS inventory. The 3/2/07 Inspection Report 05000285/2006018 states that both OPPD and the NRC selected "obvious diagnosis" for this performance shaping factor, giving it a 0.1 multiplier. However, the NRC later revised that PSF to "nominal" with a multiplier of 1.0 for the final determination.

* In NOV EA-07-047, the NRC selected a multiplier of 10 for human failure events associated with fires in the transformer yard. This had not been previously discussed with OPPD. This input appears to be arguable, since no equipment inside the plant would be affected by smoke or water. The impact on the control room operating crew would be very little different than a prolonged loss of off-site power for reasons other than fire. In either case the emergency response organization would be activated for assistance. Since the plant would cool down using natural circulation, it would be many hours before shutdown cooling was established, and the fire would be long since extinguished.

Regarding the Regulatory Oversight Process, OPPD continues to encourage active participation in ongoing SDP improvement efforts by licensees, industry groups, and the NRC.

In conclusion, our intent was to provide candid feedback on the SDP process and our experience on this issue. Our intent was not to diminish the overall significance of the HCV-345 event, OPPD's accountability for the occurrence of this problem, or to dispute the NRC's responsibility to make the final significance determination. However, the SDP apparently allows that final determination to be at least partially based on information not discussed with the licensee. This in turn may prevent some legitimate risk insights from being factored into the final determination.

I apologize for any misunderstanding the letter may have caused. I will call you within the next day or so to see if you have any additional comments or questions for me.

Very Respectfully,

Jeff Reinhart, Site Director-Fort Calhoun Station

Four Key Platforms:

1. Trust, fairness, honesty, integrity

2. Be deliberate (actions under control); follow the rules

3. Supervisors and managers set and continuously reinforce high standards

4. Do what you say you are going to do

CC: "HANNA, JOHN NRC" <jdh1@nrc.gov>, "RIDENOURE, ROSS T" <rridenoure@oppd.com>

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SUNSI Review Completed: ___ ADAMS: √ Yes ☐ No Initials: ___
√ Publicly Available ☐ Non-Publicly Available ☐ Sensitive √ Non-Sensitive

R:_REACTORS_FCS\2007\FCS NOV Response ltr.wpd

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NRR	OE/EPPOB	DRA	RA	
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