

September 2, 2011 LIC-11-0093

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Mail Station P1-137 Washington, D.C. 20555

- References: 1. Docket No. 50-285
 - 2. Letter from OPPD (Jeffrey A. Reinhart) to NRC (Document Control Desk), "Request for Exemption from Physical Security Requirements," dated December 31, 2009 (LIC-09-0071) (ML100050032)
 - 3. Letter from OPPD (Jeffrey A. Reinhart) to NRC (Document Control Desk), "Supplement to Request for Exemption from Physical Security Requirements," dated January 21, 2010 (LIC-10-0003)
 - 4. Letter from NRC (Lynnea Wilkins) to OPPD (David J. Bannister), "Fort Calhoun Station, Unit 1 -Exemption from the Requirements of 10 CFR Part 73, Section 73.55 (TAC No. ME3027)," dated March 23, 2010 (NRC-10-0020) (ML100630447)

SUBJECT: Request for Exemption Extending Compliance Date for Specific Requirements of 10 CFR 73.55

In accordance with the requirements of 10 CFR 73.5, the Omaha Public Power District (OPPD) requests the NRC approve an exemption from specific requirements of 10 CFR Part 73, "Physical Protection of Plants and Materials," for Fort Calhoun Station, Unit No. 1. The requested exemption would extend the compliance date for implementation of certain new security requirements issued by the NRC in a Final Rule dated March 27, 2009 (74 FR 13926).

In Reference 2, OPPD requested exemption from the Final Rule's date of compliance (March 31, 2010) for three specific requirements of 10 CFR 73.55. OPPD had requested that the date be extended to October 5, 2011, and supplemented its initial request in Reference 3. The NRC approved the exemption in Reference 4.

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One of the three requirements will be completed by October 5, 2011. However, due to Missouri River flooding that began in the spring of 2011, construction activities have been significantly impacted and implementation of the remaining requirements will require additional time to complete. Therefore, OPPD is requesting a schedular exemption until November 5, 2013, to implement the two remaining requirements designed to improve detection and assessment capabilities. The enclosures to this letter provides additional details regarding the specific schedule impacts, why they were unavoidable, lessons learned from the flood, a new schedule, and an Environmental Assessment.

OPPD will maintain the current FCS physical protection program in accordance with 10 CFR 73.55 and the Physical Security Plan during the period of the requested exemption. The current security program in combination with the new security requirements that have been or will be implemented by October 5, 2011, provide continued assurance of public health and safety and the common defense and security.

Enclosure 1 contains the requested exemption, which contains security-related information as described in 10 CFR 2.390(d)(1) associated with the physical protection of FCS. Accordingly, OPPD requests that Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390. Enclosure 2 is a version of Enclosure 1 that is suitable for public disclosure.

OPPD requests approval of the exemption by October 5, 2011, to be effective upon issuance. This letter contains no NRC commitments.

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If you should have any additional questions or require additional information, please contact Mr. Bill Hansher at (402) 533-6894.

Sincerely

Jeffrey A. Reinhart Site Vice President

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Enclosures:

- 1. Request for Exemption from 10 CFR 73, "Physical Protection of Plants and Materials" (Security Related Information Withhold Under 10 CFR 2.390)
- 2. Request for Exemption from 10 CFR 73, "Physical Protection of Plants and Materials" (For Public Disclosure)
- c: E. E. Collins, Jr., NRC Regional Administrator, Region IV
 - L. E. Wilkins, NRC Project Manager
 - J. C. Kirkland, NRC Senior Resident Inspector

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Request for Exemption from 10 CFR 73, "Physical Protection of Plants and Materials"

1. PHOTOGRAPHS FROM 2011 FLOOD

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Request for Exemption from 10 CFR 73, "Physical Protection of Plants and Materials"

1.0 BACKGROUND

The NRC issued a Final Rule for new security requirements in the Federal Register (FR) dated March 27, 2009 (74 FR 13926). Pursuant to 10 CFR 73.55(a)(1) of the Final Rule, the new security requirements were to be implemented by March 31, 2010. The Omaha Public Power District (OPPD) owns and operates Fort Calhoun Station (FCS), Unit No. 1, which is a single unit plant located in Washington County, Nebraska on the banks of the Missouri River. OPPD evaluated the new security requirements and determined that many of them could be implemented by March 31, 2010. However, OPPD also determined that implementation of specific parts of the new requirements needed additional time beyond March 31, 2010, and requested an exemption (Reference 1 as supplemented by Reference 2) to October 5, 2011. The NRC approved OPPD's request in Reference 3.

Of the three requirements for which an exemption from 10 CFR 73.55 was approved, OPPD will complete one [] for compliance with [] by October 5, 2011. However, due to the impact of the Missouri River flooding on the site that began in the spring of 2011, implementation of the remaining two requirements will require additional time to complete. The remaining two requirements concern: 1) [] and 2) []. Associated with the relocation of this equipment, OPPD has also elected to install [] for defense in depth.

Therefore, OPPD is requesting a schedular exemption until November 5, 2013, for two specific requirements of 10 CFR 73.55 after which OPPD will be in full compliance with the rule.

In March 2011, the NRC published a memorandum (Reference 4) in anticipation of receiving several 10 CFR Part 73 compliance date extension requests. The criteria used by the NRC as delineated in the March 2011 memorandum and OPPD's response thereto is shown in Section 4.0 below.

2.0 SPECIFIC IMPACT OF FLOODING

As shown in the attached photographs, the flooding experienced at FCS during the spring and summer of 2011 has significantly challenged the station. FCS began a refueling outage on April 9, 2011 and the flood and its aftereffects have caused it to remain shut down since that time. In response to the flooding, OPPD is undertaking comprehensive and aggressive actions to fully assess and correct its

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impact on FCS. These actions include comprehensive assessments of systems, structures, and components (SSC) and will include the preparation of detailed plans for repair and restoration. OPPD submitted Revisions 0 and 1 of the FCS Flooding Recovery Plan (FRP) in References 5 and 7 respectively. The FRP provides detailed plans and actions regarding the structure, content, and methods necessary for the station to resume power operations.

Throughout this event, OPPD has maintained physical security measures in accordance with the FCS Physical Security Plan (PSP). However, flooding has caused []. In particular, flooding at the site has challenged the []. Although this adversely affects OPPD's ability to [], OPPD has initiated appropriate compensatory measures in accordance with the approved PSP and site procedures.

Prior to resuming power operations, OPPD intends to fully restore any out-of-service [] equipment. As noted in References 6 and 8, an assessment of the physical security protection system will be accomplished prior to resuming power operations. The assessment will verify that the physical security protection system provides high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. The assessment will include verification that local law enforcement agencies and emergency response organizations remain capable of responding to a security event. If circumstances prevent full restoration of the [], OPPD will use appropriate compensatory measures in accordance with the PSP.

2011 Refueling Outage

Due to the need to prepare for the onset of flooding, outage activities were suspended in June 2011, after the reactor core was reloaded. The next major activity (engineered safety features testing) is currently on hold. Resources that would otherwise be available for installation of the security modifications necessary for full compliance with 10 CFR 73.55 will be diverted to the completion of the 2011 RFO as well as to the assessment and restoration of SSC at FCS following the flood.

Assessment and Site Restoration

In addition to assessing the physical security protection system, the condition of plant systems and equipment must be assessed to determine if any damage has occurred and identify actions necessary to restore the equipment to operable or functional status. The condition and reliability of station equipment that did not fail but still may have been impacted by the flood must also be assessed. This will

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require both short-term and long-term assessment and monitoring. Emergency preparedness must be assessed to ensure that the onsite and offsite emergency response infrastructure has been restored and the station's design and licensing basis must be evaluated to determine if changes to the licensing basis are required due to changes in the frequency or magnitude of an external flooding event.

Facilities and equipment must be restored to pre-flooding conditions. This will require that flooding protection equipment (e.g., pumps, elevated walkways, Aqua Dams[®] etc.) be removed from the site, facilities and equipment with known damage be repaired or replaced, and equipment that was moved off-site for protection from flooding be returned. The FRP submitted with References 5 and 7 provides additional detail regarding the assessment and restoration of FCS following the flood.

Due to the amount of work that must be performed using limited resources, the assessment and restoration activities described above have adversely impacted the schedule for achieving compliance with []. In addition, the need to incorporate lessons learned to minimize the impact of any future flooding on the physical security protection system must also be factored into the schedule for compliance. This will require additional time to reach compliance but will result in an improved physical security protection system better able to cope with flooding while providing the necessary detection and assessment capabilities.

3.0 PROPOSED EXEMPTION

OPPD requests an exemption for FCS, from the compliance date only, for two of the three items described in Section C of Enclosure 1 to Reference 2. OPPD is seeking a schedular exemption from []. OPPD will maintain the current FCS physical protection program in accordance with 10 CFR 73.55 and the PSP during the period of the requested exemption.

OPPD's current security program, the new requirements that were implemented by March 31, 2010, and those that will be implemented by October 5, 2011 [] provide continued assurance of public health and safety, and common defense and security. Accordingly, the requested exemption is authorized by law and will not endanger life or property or the common defense and security in accordance with 10 CFR 73.5.

4.0 BASIS FOR PROPOSED EXEMPTION

The basis for requesting this additional exemption until November 5, 2013, is the adjustment of the schedule due to challenges from Missouri River flooding. The

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delays from this external event were beyond our control and were not anticipated in the schedule provided with Reference 1.

Figure 1 below provides an updated schedule with milestones and interim completion dates for the physical modifications associated with the specific items of 10 CFR 73.55 for which this exemption is requested. The schedule includes adjustments allowing OPPD to assess flood damages, restore the site, complete the 2011 RFO, and incorporate lessons learned from the flood in the design and operation of the physical security protection system.

The schedule includes activities related to []. OPPD has also elected to install [] as defense in depth.

The schedule has been developed based on current information and anticipated impediments to construction and includes a margin of uncertainty due to winter weather conditions as much of this work will occur outdoors. However, the schedule does not assume that severe flooding recurs prior to achieving full compliance with 10 CFR 73.55.

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Figure 1
Milestone Schedule for New 10 CFR 73 Requirements Requiring Schedular Exemption

Milestone Schedule Redacted Due to Security-Related Content

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OPPD's response to the criteria for additional exemptions from the March 2011 NRC memorandum (Reference 4) is shown below.

10 CFR Part 73 Exemption Criteria

1) Identification of the specific requirement or requirements of the rule that the licensee needs additional time to implement.

Requirement 1
[] states:
<u>Issue</u>
An assessment of the [] was performed. The protected area has adequate []. However, during a [], there is a []. During this brief period, the [] do not provide []. OPPD has chosen to install [] to allow for assessment during [].
There are no interim security measures sufficient to meet the regulatory requirement for []. If this should occur, [] would be lost momentarily causing the [] to lose their [] capability. Even if security officers were available to [], they would need to deploy []. In response to a [], security officers immediately [], and thus, the [] is very brief. The [] would still detect any attempted intrusion during this time. The [] will start and [] in a matter of seconds. Therefore, the prompt resumption of [] capabilities will occur, which when combined with the immediate increase in security posture is sufficient to respond to security threats in an appropriate manner. The requirement for [] will be met when the [] are installed.
Requirement 2
[] states:

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Issue

The current configuration of the [functionality of [] located in close p OPPD has decided to move this equipme OPPD will also install [] as defen	roximity to the [] where a [nt away from [] to prevent].
If a [] should disable this equipment, i a [], this would result in an immediate sufficient to [] and [] the threat and response. These actions are in accordan command and control responsibilities, ar summoned immediately. These action measures until the requirements of the rule.	e increase in the security postur initiate and coordinate an adec ce with the PSP, which also produced directs that offsite assistant ons are effective interim secons.	e [] quate vides e be curity

2) Detailed justification that describes the reason the licensee requires additional time to implement the specific requirement or requirements identified.

Work on installing the necessary security modifications was progressing satisfactorily until it became necessary to prepare the station for the onset of Missouri River flooding in the spring of 2011. Resources needed for the installation of the security modifications were diverted to that effort. A notification of unusual event was declared on June 6, 2011, when flood waters were predicted to exceed 1004' mean sea level (MSL) at the site. The subsequent flooding and its aftereffects have made it impossible to complete the security modifications on the original schedule.

3) Detailed technical information that supports the licensee's solution for the requirement.

The basis for requesting an additional exemption until November 5, 2013, is the adjustment of the schedule due to challenges from Missouri River flooding.

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The delays from this external event were beyond OPPD's control and were not anticipated in the original schedule provided with Reference 1.

Figure 1 contains an updated schedule with milestones and interim completion dates for the physical modifications associated with the specific items of 10 CFR 73.55 for which this exemption is requested. The schedule includes adjustments allowing OPPD to assess flood damage [], restore the [], and incorporate lessons learned from the flood in the design and operation of the security system.

The schedule includes lessons learned related to the installation of []. It should be noted that the [] incurred severe flood damage. Nevertheless, because the modification improving the [] when the flood began, it will still be possible to meet the October 5, 2011, date for compliance with [].

Because of the severe flood damage to the [], the existing [] will be relocated to better protect this equipment from potential future flooding. However, this will impact the existing [], []. As a result, in certain cases, the design must be completely re-engineered and in other cases, the design must be significantly modified.

The schedule has been developed based on current information and anticipated impediments to construction and includes a margin of uncertainty due to winter weather conditions as much of this work will occur outdoors. Upon closeout of the [] (which is the backbone of the []) on November 5, 2013, OPPD will be in full compliance with the new rule. Please note that this schedule assumes that severe flooding does not recur in the interim.

4) A proposed implementation schedule with activity milestones that support the licensee's solution and are consistent with the scope of work to be conducted and the new compliance date requested.

Figure 1 provides the proposed implementation schedule. These milestones represent the design, installation, and testing activities that must be completed to comply with the new 10 CFR Part 73 requirements. The milestone schedule has been developed based on current information, anticipated challenges resulting from the assessment and restoration of the site, completion of the 2011 RFO, and the incorporation of lessons learned from the flood into the modifications needed to comply with 10 CFR 73.55. As a result, the interim milestones may change and are not considered to be regulatory commitments.

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5) An evaluation of the impact that the additional time to implement the requirements will have on the effectiveness of the licensee's overall physical protection program and protective strategy.

Fort Calhoun Station's PSP is approved by the NRC. The PSP contains adequate compensatory measures such that the additional time requested to implement these modifications will not negatively impact the overall FCS physical protection program or protective strategy. For example, a loss of [] causes []. The [] will start and []. Therefore, the prompt resumption of [] will occur, which when combined with [] is sufficient to respond to security threats in an appropriate manner. Furthermore, loss of the [] is rare and would have to occur during [] to adversely impact [] capabilities.

Regarding the vulnerability of [], if it were disabled, this would also result in []. These actions are in accordance with the PSP, which also provides command and control responsibilities, and directs that offsite assistance be summoned immediately.

5.0 ENVIRONMENTAL ASSESSMENT

OPPD is requesting an exemption for FCS in accordance with 10 CFR 73.5, "Specific exemptions." The requested exemption is schedular in nature and would defer the compliance date for two specific provisions of 10 CFR 73.55 from October 5, 2011, (authorized by a previous exemption) to November 5, 2013. The proposed exemption is needed to allow additional time for installation of security modifications.

The stations current security program, including the new requirements that were implemented by March 31, 2010, and one that will be implemented by October 5, 2011, provide continued assurance of public health and safety and common defense and security.

Deferral of the compliance date for two specific provisions of 10 CFR 73.55 is a schedular change only and, therefore, does not result in any physical changes to structures, systems, or components, or land use at FCS. The deferral of the compliance date does not involve:

- any change to the types, characteristics, or quantities of non-radiological effluents discharged to the environment,
- any changes to liquid or gaseous radioactive effluents discharged to the environment,

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- any change in the type or quantity of solid radioactive waste generated,
- any change in occupational dose under normal or design basis accident conditions.
- any change in the public dose under normal or design basis accident conditions.
- any land disturbance.

In conclusion, there is no significant radiological environmental impact associated with the proposed schedular exemption. The proposed exemption will not affect non-radiological plant effluents nor affect any historical sites.

6.0 REFERENCES

- Letter from OPPD (Jeffrey A. Reinhart) to NRC (Document Control Desk), "Request for Exemption from Physical Security Requirements," dated December 31, 2009 (LIC-09-0071) (ML100050032)
- Letter from OPPD (Jeffrey A. Reinhart) to NRC (Document Control Desk), "Supplement to Request for Exemption from Physical Security Requirements," dated January 21, 2010 (LIC-10-0003)
- Letter from NRC (Lynnea Wilkins) to OPPD (David J. Bannister), "Fort Calhoun Station, Unit 1 -Exemption from the Requirements of 10 CFR Part 73, Section 73.55 (TAC No. ME3027)," dated March 23, 2010 (NRC-10-0020) (ML100630447)
- 4. NRC Memorandum, "Review Criteria for Title 10 of the Code of the Federal Regulations Part 73.5 Compliance Date Exemption Requests for Additional Exemptions Requested by Licensees," dated March 2, 2011 (ML102710163)
- 5. Letter from OPPD (J. A. Reinhart) to NRC (Document Control Desk), "Fort Calhoun Station Post-Flooding Recovery Action Plan," dated August 10, 2011 (LIC-11-0090)
- 6. Letter from OPPD (J. A. Reinhart) to NRC (Document Control Desk), "Fort Calhoun Station Post-Flooding Security Recovery Action Plan," dated August 10, 2011 (LIC-11-0092)
- 7. Letter from OPPD (J. A. Reinhart) to NRC (Document Control Desk), "Fort Calhoun Station Post-Flooding Recovery Action Plan, Revision 1," dated August 30, 2011 (LIC-11-0095)
- 8. Letter from OPPD (J. A. Reinhart) to NRC (Document Control Desk), "Fort Calhoun Station Post-Flooding Security Recovery Action Plan, Revision 1," dated August 30, 2011 (LIC-11-0096)

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PHOTOGRAPHS FROM 2011 FLOOD

Photographs Redacted Due to Security-Related Content