

From: Samson Lee
Sent: Tuesday, December 27, 2022 6:51 AM
To: Josh Turner
Subject: Request for additional information: Wolf Creek request for deviation from fire protection program requirements (EPID: L-2022-LLA-0107)

Background

By letter dated August 2, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22215A000), Wolf Creek Nuclear Operating Corporation (WCNOC or the licensee) submitted a request for Wolf Creek Generating Station (Wolf Creek), pursuant to License Condition 2.C.(5), to make changes to the approved fire protection program allowing the use of portable lighting as the primary emergency lighting means (with limited exceptions) for illuminating safe shutdown equipment and access egress routes to the equipment. The NRC staff has reviewed the license amendment request and determined that additional information is required to complete the review. The NRC staff's request for additional information (RAI) is listed below. The NRC staff may have additional RAIs. The WCNOC staff determined that a draft RAI clarification call was unnecessary. The WCNOC staff requested, and NRC agreed, to an RAI response by January 27, 2023.

The NRC staff considers that timely responses to RAIs help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. Please note that if you do not respond to this request by the agreed upon date or provide an acceptable alternate date, we may deny your application for amendment under the provisions of Title 10 of the *Code of Federal Regulations*, Section 2.108. If circumstances result in the need to revise the agreed upon response date, please contact me at (301) 415-3168 or via e-mail Samson.Lee@nrc.gov.

NRC Staff Request RAI-1:

One significant objective of Appendix R to Title 10 of *Code Federal Regulations* (CFR) Part 50, Section III.J, "Emergency lighting," is to provide direction to the operators if electrical power is lost as a result of a fire and to provide reasonable assurance that operators will not become disoriented, particularly in stairwells and at doorways and intersecting corridors. The presence of fixed emergency lighting on some routes, but not all routes, could contribute to operator confusion and impact the timely completion of operator manual actions (OMAs). Depending on the direction of the portable light beam, the operator may not observe obstructions created by the fire brigade or other activities that can be related or unrelated to the fire emergency that would not normally be present in the pathway. Such obstructions would be obvious if fixed emergency lighting were available. Failure to obtain proper direction or to observe obstructions could impede operator access to or egress from areas needed to manually operate or check post-fire safe shutdown equipment. Further, it is not possible to predict the specific conditions under which fires may occur and propagate. Therefore, it is not possible to predict how much time operators will spend on access and egress pathways that do not contain fixed lighting. Further, these pathways generally contain obstructions (e.g., piping, structures), which require visual detection to permit safe transit.

- a) Because travel pathways to and from areas where OMAs are performed may no longer have fixed emergency light fixtures subject to regular maintenance under the Maintenance Rule, discuss the impact of using only portable (hard hat mounted) lights to light travel pathways to and from areas where OMAs are performed. At a minimum, the

discussion should include any impacts to each OMA timeline; any impacts to OMA uncertainty; any impacts to time margins; and any impacts to demonstrations.

- b) The feasibility and reliability review for each fire area where OMAs are conducted has not been updated to reflect the use of portable (hard hat mounted) lights in lieu of fixed emergency light fixtures. The feasibility and reliability review provided for the portable lights, only discusses that the portable lights have sufficient battery capacity to last for the duration needed to perform the OMAs. Provide a summary of the revised feasibility and reliability review to reflect the use of the portable lights in lieu of fixed emergency lights, particularly in the sections of the review that discuss emergency lighting, portable equipment, and demonstrations.

Docket No. 50-482

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"Josh Turner" <Josh.Turner@evergy.com>
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