



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 129 TO FACILITY OPERATING LICENSE NO. NPF-42

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

By application dated September 21, 1999, and the supplemental letter of November 5, 1999, Wolf Creek Nuclear Operating Corporation (the licensee) requested an extension to the full implementation date for Amendment No. 120, issued March 22, 1999, to the Technical Specifications (TSs, Appendix A to Facility Operating License No. NPF-42) for the Wolf Creek Generating Station (WCGS). The proposed change would extend the implementation date by six months from December 31, 1999, to June 30, 2000. There is no proposed change to the TSs.

The supplemental letter of November 5, 1999, provided additional clarifying information, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination published in the Federal Register on October 20, 1999 (64 FR 56538).

2.0 BACKGROUND

In Amendment 120 to the TSs, the current TSs were amended to support a modification to WCGS to increase the storage capacity of the spent fuel pool (SFP) and increase the nominal fuel enrichment to 5 weight percent Uranium 235 (U-235).

The licensee had planned to rerack the SFP and to add fuel storage racks in the cask loading pit to be able to accommodate a full-core discharge through the end of the license for WCGS in 2025. The old spent fuel racks are being replaced by higher density racks and also sparger lines in the pool will be truncated to maximize storage space. The racks to be placed in the cask loading pit were to be added to the pit at a later date if they were needed.

The expansion of the spent fuel storage capacity in the SFP area (including the cask loading pit) is from 1340 to 2642 fuel assemblies, 279 of which will be located in the cask loading pit and the remainder in the SFP. The new racks provide a closer assembly-to-assembly spacing to increase the overall storage capacity. The new racks will also accommodate fuel enriched as much as 5 weight percent U-235 in a mixed zone three region storage configuration. The new racks contain Boral neutron absorption material to maintain the margin below criticality for the higher fuel density and U235 enrichment.

The staff's safety evaluation for the increase in the spent fuel storage capacity and the higher fuel enrichment at WCGS is in Amendment No. 120, which was issued on March 22, 1999.

The implementation date approved for Amendment No. 120 is December 31, 1999.

## 2.0 EVALUATION

In its letter of September 21, 1999, the licensee stated that a contractor is installing the new spent fuel racks in the SFP and because of delays the contractor will not finish its work by the implementation date of December 31, 1999, stated in Amendment No. 120. The licensee stated that the delays in completing the rerack work at WCGS are because (1) the contractor began its work late at WCGS due to delays in the contractor completing a similar rerack of a SFP at another nuclear power plant, (2) the fabrication and delivery of the new racks are being delayed, and (3) the work installing new racks in the SFP is not progressing as originally scheduled.

The implementation date specified in Amendment No. 120 was to allow the licensee time to complete the modification of the SFP, remove the old spent fuel racks from the pool, install the new racks in the pool, and place the spent fuel in the new racks. It was known that old and new racks would be in the pool at the same time to allow spent fuel to be transferred from the old racks they were in to the new racks that they would be in for the remainder of the plant's operating license.

The completion of the SFP modification, for the implementation of Amendment No. 120, does not include adding new racks to the cask loading pit. It is stated in Amendment No. 120 that the racks to be placed in the pit may be installed in that area at a future time after the modification of the main pool, if the racks are needed. Therefore, it was intended that the new racks would be placed in the cask loading pit at a later date and placing the new racks in the pit is not part of the reracking of the SFP that must be completed by the implementation date for Amendment 120.

There is no reason that the installation of the new racks in the pool and placement of the spent fuel in the new racks has to be completed by December 31, 1999, as specified in Amendment No. 120. The SFP modification was scheduled between refueling outages to avoid working on reracking the SFP while the plant was being refueled. This schedule would avoid moving spent fuel for placement in the new racks and for refueling at the same time. The new proposed implementation date still meets this objective because the new implementation date is approximately 3 months before the next refueling outage and the licensee stated that the proposed implementation date is before the scheduled delivery date of new fuel for that refueling outage.

Based on the above, the staff concludes that the new implementation date is acceptable.

Amendment No. 120 also specified that while the SFP reracking modification is in progress, TSs issued through Amendment No. 119 will apply to the old racks and TSs issued through Amendment No. 120 would apply to the new racks. The licensee is not requesting a change to this condition.

In the letter of November 5, 1999, the licensee provided further description of the delays that are occurring in the rerecking of the SFP and stated that the delays may now impact the implementation of the improved TSs (Amendment No. 123 dated March 31, 1999, which contains Amendment No. 120) in that there may not be sufficient new racks in the SFP before the implementation of the improved TSs to contain all the fuel assemblies in the SFP. In this case, the license condition for Amendment No. 120, that the TSs issued through Amendment No. 119 will apply to the old racks and the TSs that were amended by Amendment No. 120 (i.e., the improved TSs that contain Amendment No. 120) would apply to the new racks, would remain in effect and cover the old racks until the SFP rereck modification is completed and the old racks have been removed from the SFP. After the old racks are removed, only the improved TSs, that include Amendment No. 120, would apply. Therefore, the requirements in the TSs issued through Amendment No. 119 must remain in effect on the old racks until all the old racks are removed from the SFP. This license condition is not being altered by the proposed change to the implementation date.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Kansas State Official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (64 FR 56538). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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