April 18, 2007

Mr. Terry J. Garrett
Vice President Engineering
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE WOLF CREEK GENERATING STATION, UNIT 1, LICENSE RENEWAL APPLICATION

Dear Mr. Garrett:

By letter dated September 27, 2006, Wolf Creek Nuclear Operating Corporation submitted an application pursuant to Title 10 Code of *Federal Regulations* Part 54, to renew the operating license for Wolf Creek Generating Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information were discussed with Lorrie Bell, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-3703 or e-mail VMR1@nrc.gov.

Sincerely,

/RA/

Verónica M. Rodríguez, Project Manager
License Renewal Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure:
Requests for Additional Information

cc w/encl: See next page

April 18, 2007

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By letter dated September 27, 2006, Wolf Creek Nuclear Operating Corporation submitted an application pursuant to Title 10 Code of Federal Regulations Part 54, to renew the operating license for Wolf Creek Generating Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

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WOLF CREEK GENERATING STATION (WCGS), UNIT 1
LICENSE RENEWAL APPLICATION (LRA)
REQUESTS FOR ADDITIONAL INFORMATION (RAI)

Containment Spray System

D-RAI 2.3.2.2-1

LRA Table 2.3.2-2 does not contain all the components highlighted in LRA drawing LR-WCGS-EN-M-12EN01 as components within the scope of license renewal. For example, LRA Table 2.3.2-2 lists closure bolting, piping, pump, tubing, valve, vortex breaker, among others; however, it does not list pump casings nor valve bodies. The staff requests that the applicant clarify this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

D-RAI 2.3.2.2-2

Updated Safety Analysis Report (USAR) Section 6.2.2.1.2.2 describes the mechanical components in the containment recirculation sumps. It states that a "baffle arrangement of grating, coarse screening and fine screening that completely surrounds the sumps to prevent floating debris and high density particles from entering." However, these baffle arrangements and their intended function(s) are not listed in LRA Table 2.3.2-2. The staff requests that the applicant justify the exclusion of these components from the scope of license renewal.

D-RAI 2.3.2.2-3

USAR Section 6.2.5.2.2.2 states that the containment spray system is one element of a complement of factors and systems that ensure uniform mixing of hydrogen within the containment atmosphere following a loss of coolant accident. LRA Section 2.3.2.2 does not mention this function. The staff requests that the applicant clarify this inconsistency.

Containment Integrated Leak Rate Test System

D-RAI 2.3.2.3-1

LRA Table 2.3.2-3 does not contain all the components highlighted in LRA drawing LR-WCGS-GP-M-12GP01 as components within the scope of license renewal. For example, LRA Table 2.3.2-3 lists closure bolting, piping, and valve; however, it does not list valve bodies. The staff requests that the applicant clarify this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify its exclusion.

Decontamination System

D-RAI 2.3.2.4-1

LRA Table 2.3.2-4 does not contain all the components highlighted in LRA drawing LR-WCGS-HD-M-12HD01 as components within the scope of license renewal. For example, LRA Table 2.3.2-4 lists closure bolting, piping, valve; however, it does not list valve bodies. The staff requests that the applicant clarify this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify its exclusion.

D-RAI 2.3.2.4-2

LRA drawing LR-WCGS-HD-M-12HD01 shows 1-inch test connections (attached to 016-HBD-2 and 017-HBD-2) not highlighted in green. This would indicate that these 1-inch test connections are not within the scope of license renewal and not subject to an aging management review (AMR). The two 2-inch pipes shown in the drawing have an intended function of "structural integrity (attached)." The staff request that the applicant clarify whether the 1-inch test connections have the same intended function as the 2-inch pipes. If yes, the staff request that the applicant justify their exclusion from the scope of license renewal.

Containment Purge HVAC System

D-RAI 2.3.2.7-1

LRA Table 2.3.2-7 does not contain all the components highlighted in LRA drawing LR-WCGS-GT-M-12GT01 as components within the scope of license renewal. For example, LRA Table 2.3.2-7 lists closure bolting, damper, pump, and valve; however, it does not list damper housings, pump casing, nor valve bodies. The staff requests that the applicant clarify this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

D-RAI 2.3.2.7-2

LRA drawing LR-WCGS-GT-M-12GT01 does not highlight the safety-related / nonsafety-related interfaces (i.e., green to red) as within the scope of license renewal. However, LRA Table 2.3.2-7 shows "structural integrity (attached)" as an intended function for piping in the system. The staff requests that the applicant explain why this interface is not highlighted in the drawing. If this interface is not within the scope of license renewal, the staff requests that the applicant justify its exclusion.

D-RAI 2.3.2.7-3

LRA Table 2.3.2-7 lists "pressure boundary" as an intended function for the component type of tubing. LRA drawing LR-WCGS-GT-M-12GT01 shows a 3/8-inch tubing located at heat exchanger No. 14 (at valves V0220 and V0221) which would suggest a "leakage boundary (spatial)" intended function. The staff requests that the applicant clarify this discrepancy.

Breathing Air System

D-RAI 2.3.2.8-1

LRA Table 2.3.2-8 does not contain all the components highlighted in LRA drawing LR-WCGS-KB-M-12KB01 as components within the scope of license renewal. For example, LRA Table 2.3.2-8 lists closure bolting, piping, and valve; however, it does not list valve bodies. The staff requests that the applicant clarify this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

D-RAI 2.3.2.8-2

LRA drawing LR-WCGS-KB-M-12KB01 shows 1-inch test connections 004-HCD-1 and 005-HCD-1 not highlighted, indicating that there are not within the scope of license renewal and not subject to an AMR. Test connection 004-HCD-1 attaches to 002-HCD-2, and test connection 005-HCD-1 attaches to 003-HCD-2. As indicated in LRA Table 2.3.2-8 and by the red highlight shown in the drawing, pipes 002-HCD-2 and 003-HCD-2 have an intended function of "structural integrity (attached)" in accordance with 10 CFR 54.4(a)(2). It seems that these 1-inch test connections have the same intended function. Therefore, the staff requests that the applicant explain why test connections 004-HCD-1 and 005-HCD-1 and their attendant valves are not within the scope of license renewal and subject to an AMR.

Hydrogen Control System

D-RAI 2.3.2.9-1

LRA Table 2.3.3-9 does not contain all the components highlighted in LRA drawing LR-WCGS-GS-M-12GS01 as components within the scope of license renewal. For example, LRA Table 2.3.3-9 lists closure bolting, piping, recombiner, and valve, among others; however, it does not list valve bodies nor recombiner housings. The staff requests that the applicant explain this inconsistency. If these components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

D-RAI 2.3.2.9-2

USAR 6.2.5.2.2.2 states that one of the system functions is to uniformly mix the hydrogen within the containment atmosphere following a loss-of-coolant accident. However, this is not addressed in the system description of LRA Section 2.3.2.9. Furthermore, there is no mention of this uniform mixing of hydrogen function in LRA Section 2.3.3.5, "Containment Cooling System." The staff requests that the applicant clarify these inconsistencies.

D-RAI 2.3.2.9-3

LRA Table 2.3.2-9 indicates that portions of the piping subject to an AMR have a "structural integrity (attached)" intended function. The system function described in LRA Section 2.3.2.9 does not indicate that portions of the hydrogen control system are within scope of license renewal in accordance with the 10 CFR 54.4(a)(2) criteria. The staff requests that the applicant clarify this inconsistency.

D-RAI 2.3.2.9-4

LRA drawing LR-WCGS-GS-M-12GS01 appears to have at least one piping segment that has a "structural integrity (attached)" intended function pursuant to 10 CFR 54.4(a)(2). For example, pipe 026-HB0-6, located downstream of the seismic flag at butterfly valve V021 at coordinate F-4, appears to be a carbon steel pipe with a "structural integrity (attached)" intended function. This would be in agreement with LRA Table 2.3.2.9. However, there are multiple occurrences of what appears to be stainless steel test connections beyond the seismic anchor point identified on the drawing. In most cases it is not obvious whether the test connection is stainless steel pipe or tubing. At coordinate B-3 and B-7, there is stainless steel tubing connected beyond the seismic anchor valves V0109 and V010, which appear to be safety-related to nonsafety-related interfaces. The staff requests that the applicant clarify whether the component type "tubing" should also include a "structural integrity (attachment)" intended function. In addition, the staff requests that the applicant clarify similar inconsistencies in LRA Section 2.3.2.9 and its drawing.

Auxiliary Building HVAC System

D-RAI 2.3.3.8-1

LRA Table 2.3.3-8 does not contain all the components highlighted in LRA drawings LR-WCGS-GL-M-12GL01, LR-WCGS-GL-M-12GL02, and LR-WCGS-GL-M-12GL03 as components within the scope of license renewal. For example, LRA Table 2.3.3-8 lists closure bolting, damper, ductwork, fan, and flex connector, among others; however, it does not list damper housings, heating coil housings, pump casing, valve bodies, nor fan housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Control Building HVAC System

D-RAI 2.3.3.9-1

LRA Table 2.3.3-9 does not contain all the components highlighted in LRA drawings LR-WCGS-GK-M-12GK01, LR-WCGS-GK-M-12GK02, LR-WCGS-GK-M-12GK03, and LR-WCGS-GK-M-12GK04 as components within the scope of license renewal. For example, LRA Table 2.3.3-9 lists adsorber, closure bolting, compressor, damper, ductwork, fan, flex connector, pump, and valve, among others; however, it does not list housings for filter adsorption units including its high-efficiency particulate air (HEPA) filters, charcoal adsorbers, and moisture separators), compressor housings, fire dampers, damper housings including fire damper housings, heating coil housings, pump casings, valve bodies, supply and return grills, air intake louvers and associated housings, nor fan housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components (e.g., sealants, wall sealants, pressure boundary sealants, metal screens to protect against any debris for air intake or air discharge (purge), etc.) are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Fuel Building HVAC System

D-RAI 2.3.3.10-1

LRA Table 2.3.3-10 does not contain all the components highlighted in LRA drawings LR-WCGS-GG-M-12GG01, and LR-WCGS-GG-M-12GG02 as components within the scope of license renewal. For example, LRA Table 2.3.3-10 lists adsorber, closure bolting, damper, ductwork, fan, and flex connectors, among others; however, does not list housings for filter adsorber units (including its HEPA filters, charcoal adsorbers, and moisture separators), damper housings, fire dampers and associated housings, heating coil housings, pump casings, valve bodies, nor fan housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components (e.g., duct sealants, wall sealants, pressure boundary sealants, etc.) are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Essential Service water Pumphouse Building HVAC System

D-RAI 2.3.3.11-1

LRA Table 2.3.3-11 does not contain all the components highlighted on LRA drawing LR-WCGS-GD-M-K2GD01 as components within the scope of license renewal. For example, LRA Table 2.3.3-11 lists closure bolting, damper, ductwork, and fan, among others; however, it does not list damper housings, intake and exhaust louvers with their associated housings and plenums nor fan housings. The staff requests that the applicant clarify this inconsistency. The staff requests that the applicant clarify this inconsistency. If these and other applicable components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Miscellaneous Building HVAC System

D-RAI 2.3.3.12-1

LRA Table 2.3.3-12 does not contain all the components highlighted on LRA drawing LR-WCGS-GF-M-12GF01 as components within the scope of license renewal. For example, LRA Table 2.3.3-12 lists closure bolting, damper, ductwork, fan, and flex connector, among others; however, it does not list damper housings, heating coil housings, pump casings, valve bodies, nor fan housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Diesel Generator Building HVAC System

D-RAI 2.3.3.13-1

LRA Table 2.3.3-13 does not contain all the components highlighted on LRA drawing LR-WCGS-GM-M-12GM01 as components within the scope of license renewal. For example, LRA Table 2.3.3-13 lists closure bolting, damper, ductwork, fan, and flex connector, among others; however, it does not list damper housings, valves and valve bodies, intake and exhaust louvers and associated housings and plenums nor fan housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Turbine Building HVAC System

D-RAI 2.3.3.20-1

LRA Tables 2.3.3-20 and 3.3.2-20 does not contain all the components highlighted on LRA drawings LR-WCGS-GE-M-12GE01 and LR-WCGS-GE-M-12GE02 as components within the scope of license renewal. For example, LRA Table 2.3.3-20 lists closure bolting, damper, ductwork, and flex connector; however, it does not list damper housings, fire dampers nor fire damper housings. The staff requests that the applicant clarify this inconsistency. If these and other applicable components are not within the scope of license renewal, the staff requests that the applicant justify their exclusion.

Letter to T.Garrett from V.Rodriguez, dated April 18, 2007

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