

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Richard A. Muench
President and Chief Executive Officer

December 20, 2006

WM 06-0051

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Docket No. 50-482: 60-Day Report for NRC Order EA-03-009,
"Issuance of First Revised Order Establishing Interim Inspection
Requirements for Reactor Pressure Vessel Heads at Pressurized
Water Reactors"

Gentlemen:

The attachment contains the Wolf Creek Nuclear Operating Corporation (WCNOC) report for the 60-day requirement of U.S. Nuclear Regulatory Commission (NRC) Order EA-03-009, "Issuance of First Revised Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," dated February 20, 2004. Paragraph IV.E of the order requires, within 60 days after returning the plant to operation, the submittal of a report detailing the results of inspections of the reactor pressure vessel head surface and penetrations. Wolf Creek Generating Station returned to operation following Refuel 15 on November 10, 2006.

No commitments are identified in this submittal. If you have any questions concerning this matter, please contact me at (620) 364-4000, or Mr. Kevin Moles at (620) 364-4126.

Sincerely,



Richard A. Muench

RAM/rlt

Attachment

cc: J. N. Donohew (NRC), w/a
B. S. Mallett (NRC), w/a
G. B. Miller (NRC), w/a
Senior Resident Inspector (NRC), w/a

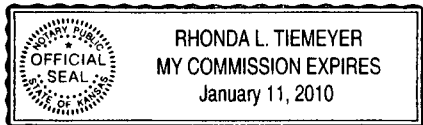
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STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Richard A. Muench, of lawful age, being first duly sworn upon oath says that he is President and Chief Executive Officer of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By *RAMuench*
Richard A. Muench
President and Chief Executive Officer

SUBSCRIBED and sworn to before me this 20th day of Dec., 2006.



Rhonda L. Tiemeyer
Notary Public

Expiration Date *January 11, 2010*

**60-Day Report for NRC Order EA-03-009
"Issuance of First Revised Order Establishing Interim Inspection Requirements
for Reactor Pressure Vessel Heads at Pressurized Water Reactors"**

Below is the Wolf Creek Nuclear Operating Corporation (WCNOC) report for the 60-day requirement of paragraph IV.E of U.S. Nuclear Regulatory Commission (NRC) Order EA-03-009, "Issuance of First Revised Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," dated February 20, 2004. The order's "Required Information" is shown in bold.

Required Information

IV.C. (Excerpts)

All Licensees shall perform inspections of the Reactor Pressure Vessel (RPV) head using the following techniques and frequencies:

- (3) For those plants in the Low category, RPV head and head penetration nozzle inspections shall be performed as follows. An inspection meeting the requirements of paragraph IV.C.(5)(a) must be completed at least every third refueling outage or every five (5) years, whichever occurs first. The requirements of paragraph IV.C.(5)(b) must be completed at least once prior to February 11, 2008 , and thereafter, at least every four(4)refueling outages or every seven(7) years, whichever occurs first.**
- (5)(a) Bare metal visual examination of 100% of the RPV head surface (including 360° around each RPV head penetration nozzle).**
- (5)(b) Perform a nonvisual nondestructive examination (NDE) with ultrasonic testing, eddy current testing/dye penetrant, or a combination of the techniques.**

IV.D. During each refueling outage, visual inspections shall be performed to identify potential boric acid leaks from pressure-retaining components above the RPV head. For any plant with boron deposits on the surface of the RPV head or related insulation, discovered either during the inspections required by this Order or otherwise and regardless of the source of the deposit, before returning the plant to operation the Licensee shall perform inspections of the affected RPV head surface and penetrations appropriate to the conditions found to verify the integrity of the affected area and penetrations.

IV.E. For each inspection required in Paragraph C, the Licensee shall submit a report detailing the inspection results within sixty (60) days after returning the plant to operation. For each inspection required in Paragraph D, the Licensee shall submit a report detailing the inspection results within sixty (60) days after returning the plant to operation if a leak or boron deposit was found during the inspection.

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Inspection Results IV.E

Inspection IV.D

During Refuel 15 in October 2006, WCNOC performed a visual inspection of pressure-retaining components above the RPV head. No leaks were detected. No boron deposits were observed on the surface of the RPV head or related insulation.

Inspection IV.C (5)(a)

The bare metal visual examination was performed using a procedure specifically developed for RPV head bare metal inspections. The procedure includes requirements for personnel certification, examination and acceptance criteria, and recording of inspection results. Examination personnel were certified to a minimum of Level II in the VT-2 method. No evidence of boric acid leakage was detected.

Inspection IV.C (5)(b)

The scope of the reactor vessel head penetration NDE included all seventy-eight (78) Control Rod Drive Mechanism (CRDM) penetration tubes and one (1) vent line penetration. Examinations of the CRDM penetration tubes were performed from the inside diameter (ID) surfaces using a program that included ultrasonics and a supplementary eddy current examination with leakage assessment. No penetrations showed detectable degradation and there were no indications of leak paths identified in the shrink fit areas. The examination of the vent line penetration was performed with eddy current examination techniques on the surface of the J-groove weld and vent pipe ID. This examination showed no detectable degradation.

In accordance with section IV, paragraph F of the Order, Reference 1 requested relaxation from the nondestructive testing requirements specified in section IV, paragraph C.(5)(b)(i) and C.(5)(b)(ii) for five RPV head penetrations nozzles 74 through 78. The dimensional configuration at the location of these nozzles was such that the distance from the lowest point at the toe of the J-groove weld to the top of the threaded region was potentially less than the one (1) inch lower boundary limit specified in IV.C.5(b)(i) and IV.C.5(b)(ii) of the First Revised Order for areas with stress levels of 20 ksi tension or greater.

Reference 2 specified that the required coverage for penetrations 77 and 78 could not be met. Penetrations 77 and 78 measured less than one (1) inch below the lowest point at the toe of the weld (on a horizontal plane perpendicular to the nozzle axis). The measurements were 0.6 and 0.88 inches respectively.

The NRC staff authorized, pursuant to Section IV.F(2) of the Order, the alternate inspection of nozzles 77 and 78 (Reference 3).

References:

1. Letter ET 06-0035, dated October 5, 2006 from T.J. Garrett WCNOG, to USNRC.
2. Letter ET 06-0048, dated November 1, 2006 from T.J. Garrett WCNOG, to USNRC.
3. Letter dated December 7, 2006 from D. Terao USNRC, to R. Muench WCNOG.