



Steven R. Koenig
Manager Regulatory Affairs

July 28, 2015

RA 15-0062

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

Subject: Docket No. 50-482: Inservice Inspection Program Third Interval, Third
Period, Refueling Outage 20 Owner's Activity Report

Gentlemen:

Enclosed is the Wolf Creek Nuclear Operating Corporation (WCNOC) Owner's Activity Report (Form OAR-1, Report Number WCRE-16, I3-P3-RF20) for inservice inspections performed after Wolf Creek Generating Station's (WCGS) nineteenth refueling outage (RF19) that concluded on May 13, 2014, and up to, and including, WCGS' twentieth refueling outage (RF20) that concluded on May 3, 2015. RF20 was the second refueling outage of the third period of the third interval of the WCNOC Inservice Inspection Program. The enclosed report is submitted pursuant to the requirements of paragraph IWA-6240 of the 1998 Edition through 2000 Addenda of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code and ASME Code Case N-532-4.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4041 or Mr. Bill Muilenburg at (620) 364-4186.

Sincerely,

A handwritten signature in black ink, appearing to read "S. R. KOENIG".

for
Steven R. Koenig

SRK/rlt

Enclosure:

cc: M. L. Dapas (NRC), w/e
C. F. Lyon (NRC), w/e
N. H. Taylor (NRC), w/e
Senior Resident Inspector (NRC), w/e

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NRR

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Enclosure to RA 15-0062

**Wolf Creek Nuclear Operating Corporation (WCNOC)
Owner's Activity Report
(Form OAR-1, Report Number WCRE-16, I3-P3-RF20)
(6 pages)**

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number WCRE-16, I3-P3-RF20

Plant Wolf Creek Generating Station, 1550 Oxen Lane Northeast, Burlington, Kansas 66839

Unit No. 1 Commercial service date 9-3-1985 Refueling outage no. RF-20
(if applicable)

Current inspection interval 3rd
(1st, 2nd, 3rd, 4th, other)

Current inspection period 3rd
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 1998 Edition through 2000 Addenda

Date and revision of inspection plans WCRE-16 Rev. 9, dated 2-6-13

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans
same

Code Cases used: See Attachment 1
(if applicable)

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of RF-20 conform to the requirements of Section XI.
(refueling outage number)

Signed David Diefel Engineer Date 7/16/2015
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Kansas and employed by The Hartford Steam Boiler Inspection and Insurance Co. of Connecticut have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Adam S. Szwed Commissions NB 13573 A,N,I KS 657
Inspector's Signature National Board, State, Province, and Endorsements

Date 20 Jul 15

TABLE 1
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED
EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
D-B, D2.10	EF-054-HBC-8	A through-wall leak was identified. An evaluation utilizing the methodology of ASME Code Case N-513-2 was performed for continued operation. The evaluation determined that structural integrity was intact and that the piping could remain in operation in the current condition until the scheduled repair during MC20. Periodic monitoring prior to the repair was required.
D-B, D2.10	EG-210-HBC-24	A through-wall leak was identified. An evaluation utilizing the methodology of ASME Code Case N-513-2 was performed for continued operation. The evaluation determined that structural integrity was intact and that the piping could remain in operation in the current condition until the scheduled repair during RF20. Periodic monitoring prior to the repair was required.
D-B, D2.10	SGN01A, SGN01B, SGN01C, SGN01D	An evaluation was performed to address the operability of the Containment Air Coolers. The operability was in question based on an operational history of leakage. Tube failure was occurring as a result of under deposit pit corrosion that subsequently led to tube leaks. Hydrostatic testing was performed on the tube bundles using a test pressure determined by utilizing corrosion rates and the required wall thickness. Based on the hydrostatic testing results, the evaluation determined that the Containment Air Coolers were able to perform their design function until replacement in RF20.

TABLE 2
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

Code Class	Item Description	Description of Work	Date Completed (Note 1)	Repair/Replacement Plan Number
3	EKJ03B	Cut, realign, and perform fit-up/welding as necessary to support re-aligning the pipe and fittings on KJ148HBC-8" to better align the Garlock coupling to within allowable tolerance.	5/18/15	2014-207
3	Containment Cooler SGN01A	Replace 12 cooling coils with new coils and replace all the cooling coil mounting bolts and lock nuts with new material.	5/19/15	2014-096
3	Containment Cooler SGN01B	Replace 12 cooling coils with new coils and replace all the cooling coil mounting bolts and lock nuts with new material.	5/19/15	2014-097
3	Containment Cooler SGN01C	Replace 12 cooling coils with new coils and replace all the cooling coil mounting bolts and lock nuts with new material.	5/19/15	2014-098
3	Containment Cooler SGN01D	Replace 12 cooling coils with new coils and replace all the cooling coil mounting bolts and lock nuts with new material.	5/19/15	2014-122
2	Residual Heat Removal Pump PEJ01A	Replaced damaged pump diffuser, seal housing, and tack weld bearing retainer cap screws.	5/12/15	2015-032
3	Spent Fuel Cooling HX EEC01B	Installed welded tube plugs in the inlet and outlet for 3 tubes 1-1, 4-1, and 5-1. The outlet of tube 1-1 had a 10' tube stake welded to the inner end of the plug and installed in the tube.	6/17/15	2014-003
3	ALV0002 8" Check Valve	Replaced valve with a like-for-like valve due to ID pitting and the valve dimensional criteria was out of tolerance	2/3/14	2012-044
3	ESW Piping EG205HBC-24	Installed a 2" encapsulation over degraded area on spool EF03-S009/142 due to ID pitting.	2/19/14	2013-104
3	EEC01A Fuel Pool Cooling	Installed welded tube plugs in inlet and outlet tube 1-1. Installed 10' tube stake welded to the plug and installed outlet tube 1-1.	8/5/13	2013-109
3	PEG01A CCW Pump	Performed base metal repairs of eroded areas on the inside of pump casing.	9/23/13	2013-219

Code Class	Item Description	Description of Work	Date Completed (Note 1)	Repair/Replacement Plan Number
3	EF129HBC-24	Installed 6" encapsulation on minimum wall violation indications M-13EF04-EF129HBC-24-BAUX-04A and M-13EF04-EF129HBC24-B001A on line EF129HBC-24	7/1/13	2013-295
3	EFHV0092	Replaced 3" Motor Operated Gate Valve due to over torquing of the operator.	4/14/14	2014-042
3	A Emerg Diesel EKJ01A HX	Realigned piping to within specifications for flex coupling.	6/10/15	2014-058
3	ESW Pre Lube TEF01A	Replaced the Pre-Lube Storage Tank with a new Design as approved by CCP 14727. Replace a portion of spools EF173HBC-2, EF184HBC-2 and EF192HBC-2. Tank replaced due to ID Pitting.	6/17/15	2014-050
3	A Emerg Diesel KJ049HBC-8	Realigned piping to within specifications for flex coupling between EKJ04A and EFV0053.	3/21/15	2014-060
3	ESW Piping EF192HBC-24	Installed 2" encapsulation over minimum wall defect on piping spool EF04-S006/133 due to ID pitting.	6/25/2015	2014-092
3	CCW Cooling PEG01D	Performed base metal repairs of erode areas in the upper and lower pump casing.	6/10/15	2014-154
3	EG03R026141	Replaced existing sway strut with new from warehouse stock.	6/17/15	2012-087
2	EGV0204	Performed base metal repair on three worn areas on the valve body and weld build-up on worn area on portion the travel stop of disc arm to return the valve to full compliance with the original design.	5/19/15	2015-057
1	RBB01	Installed canopy seal weld clamp on capped latch housing penetration No. 20.	6/15/15	2015-044
3	EF141HBC-4	Replaced 1-EF-14-S-008/341 spool for min wall violation (like-for-like).	5/19/15	2015-035
1	PSA-1/2 S/N 15022	Replaced damaged housing and insert assembly on PSA-1/2 S/N 15022 snubber with new replacement part.	1/21/15	2014-192
1	PSA-1/4 S/N 16449	Replaced damaged housing and insert assembly on PSA-1/4 S/N 16449 snubber with new replacement part.	1/21/15	2014-193

Code Class	Item Description	Description of Work	Date Completed (Note 1)	Repair/Replacement Plan Number
1	PSA-1/4 S/N 24289	Replaced damaged torque carrier and shaft assembly on PSA-1/4 S/N 24289 snubber with new replacement part.	1/21/15	2014-194
1	PSA-100 S/N 1390	Replaced damaged telescoping cylinder on PSA-100 S/N 1390 snubber with new replacement part.	1/21/15	2014-180
1	PSA-3 S/N 8435	Replaced damaged bearing retainer nut on PSA-3 S/N 8435 snubber with new replacement part.	1/21/15	2014-181
3	EF04-S006/131	Installed 2" encapsulation over degraded area M13EF04-EF129HBC24-BGWT-84-02 on pipe spool EF04-S006/133.	6/25/15	2014-092
3	SGN01C	Removed cooling coil on SGN01C from service due to leak. The inlet and outlet flanges from the cooling coil were cut and blind flanges were installed.	5/28/14	2014-063
3	SGN01B	Removed cooling coil on SGN01B from service due to leak. The inlet and outlet flanges from the cooling coil were cut and blind flanges were installed.	6/18/14	2014-064
1	PSA-35 S/N 11690	Replaced damaged telescoping cylinder on PSA-35, S/N 11690, snubber with new replacement part.	6/17/15	2014-204
3	SGN01D	Removed leaking coil S/N 906-897-D4 and install S/N 906-897-D2 replacement cooling coil in top north bank in SGN01D cooler.	5/28/14	2014-043
3	EF06C055125	Replaced existing Corner Lada Strut (item 3 on design drawing M-06EF06C055125) with new ITT Grinnell (figure 211)	6/29/15	2013-059
3	EG210HBC-24	Replaced all of spool EF04-S009/141 on line EG210HBC-24 in accordance with CCP 14266.	6/23/15	2014-106
3	EF054HBC-8	BECHTEL POWER CORPORATION replaced EF02-S029/124, EF02-S030/124 and a portion of EF02-S031/124 on line EF-054HBC-8.	6/26/2014	2013-266

Note 1: The date completed is the date the Form NIS-2A was certified.

ATTACHMENT 1

Code Cases used:

N-460	N-513-2	N-532-4
N-533-1	N-552	N-566-2
N-616	N-623	N-624
N-639	N-652	N-658
N-685	N-686	N-695
N-700	N-706	