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

August 22, 2010

Mr. David A. Heacock
President & Chief Nuclear Officer
Dominion Energy Kewaunee, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION (KPS) – REVISION OF VALVE INSERVICE TESTING RELIEF REQUEST VRR-05 (TAC NO. ME3352)

Dear Mr. Heacock:

By letter dated February 15, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100470791), Dominion Energy Kewaunee, Inc. (DEK), submitted a revision to Relief Request VRR-05 (henceforth called Relief Request VRR-05 Revision) applicable for the remainder of its fourth 10-year inservice testing (IST) program interval. DEK requested approval of this revision to the alternative previously approved by the Nuclear Regulatory Commission (NRC) staff on March 24, 2006. DEK requested approval to extend leakage testing of two containment sump residual heat removal isolation valves from each refueling outage to each refueling outage when valve remote position indication verification is not observed locally (as specified by the current requirements).

As set forth in the enclosed safety evaluation, the NRC staff finds that DEK's proposed alternative provides reasonable assurance that valves SI-350A and SI-350B are operationally ready. All other American Society of Mechanical Engineers (ASME) OM Code requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii), and is in compliance with the ASME OM Code's requirements. Therefore, the NRC staff approves Relief Request VRR-05 Revision at KPS for the fourth 10-year IST interval.

For questions, please call the Project Manager, Mr. Karl Feintuch (301-415-3079).

Sincerely,

Robert J. Pascarelli, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-305

Enclosure:
Safety Evaluation

cc w/encl: Distribution via ListServ

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

DOMINION ENERGY KEWAUNEE, INC

KEWAUNEE POWER STATION (KPS)

ALTERNATIVE REQUEST NO. VRR-05 REVISION

INSERVICE TESTING (IST) PROGRAM, FOURTH 10-YEAR INTERVAL

DOCKET NO. 50-305

1.0 INTRODUCTION

By letter dated February 15, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100470791), Dominion Energy Kewaunee, Inc. (DEK), the licensee, submitted a revision to Relief Request VRR-05 (henceforth called Relief Request VRR-05 Revision) applicable for the remainder of its fourth ten-year IST program interval. The licensee requested approval of this revision to the alternative previously approved by the Nuclear Regulatory Commission (NRC) staff on March 24, 2006 (ADAMS Accession No. ML060720072), and supplemented with a clarification letter on April 20, 2006 (ADAMS Accession No. ML061000038). The approval of alternative described as Relief Request VRR-05 was applicable for the fourth 10-year IST interval at KPS. The KPS fourth 10-year IST interval began on February 16, 2005, and will end on February 15, 2015. In the Relief Request VRR-05 Revision, DEK requests authorization to extend leakage testing of two containment sump residual heat removal (RHR) isolation valves from each refueling outage to each refueling outage when valve remote position indication verification is not observed locally (as specified by the current requirements).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(a)(3)(ii), the licensee requested to use the proposed alternative, Relief Request VRR-05 Revision, claiming that complying with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

2.0 REGULATORY EVALUATION

The regulation at 10 CFR 50.55a(f), "Inservice Testing Requirements," requires, in part, that American Society of Mechanical Engineers (ASME) Class 1, 2, and 3 components must meet the requirements of the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) and applicable addenda, except where alternatives have been authorized pursuant to paragraphs (a)(3)(i) or (a)(3)(ii).

In proposing alternatives, a licensee must demonstrate that the proposed alternative provides an acceptable level of quality and safety (10 CFR 50.55a(a)(3)(i)), or compliance would result in

hardship or unusual difficulty without a compensating increase in the level of quality and safety (10 CFR 50.55a(a)(3)(ii)). Section 50.55a allows the NRC to authorize alternatives to ASME OM Code requirements upon making necessary findings. NRC guidance contained in NUREG-1482, Revision 1, "Guidance for Inservice Testing at Nuclear Power Plants," provides alternatives to ASME Code requirements which are acceptable.

The NRC's findings with respect to authorizing the alternative to the ASME OM Code are given below.

3.0 TECHNICAL EVALUATION

3.1 Alternative Request VRR-05 Revision

The applicable ASME OM Code for the KPS fourth 10-year IST interval is the 1998 Edition through 2000 Addenda.

OMB Code 2000, ISTC-3700 (Position Verification Testing) states that valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated.

The licensee requested alternative testing for the following components:

SI-350A – Containment Sump B Supply to RHR Isolation Valve (Category B Valve)

SI-350B – Containment Sump B Supply to RHR Isolation Valve (Category B Valve)

The licensee states that these valves are considered "inside containment" isolation valves. However, the valves are physically located outside of the containment structure in separate enclosures. Local observation of the valves during performance of position indication verification requires that the enclosures be disassembled and removed. Subsequent to reassembly, the enclosures require leak testing. These additional activities involved with this observation are performed in a radiation area and are time-consuming.

It is the licensee's position that compliance with the two-year Code requirement for local observation of valve position indication represents a hardship without compensating increase in the level of quality and safety.

In lieu of the every 2 year local position indication verification, DEK proposes to conduct the remote position indication verification of valves SI-350A and SI-350B on a 36-month frequency, plus 25 percent for scheduling flexibility. This proposed frequency is consistent with the relief previously authorized by the NRC. The proposed 36-month frequency would effectively allow performance of the local position indication verification during every other refueling outage.

In addition, during those refueling outages where local position indication verification of these valves is not performed (i.e., every other refueling outage), the valves will be leakage tested to verify valve closure. These activities, in conjunction with quarterly monitoring of valve stroke times, will ensure reliable operation of the valves, including remote position indication.

The basis for the 36-month local position indication verification frequency is that preventive maintenance on the valve motor operators is scheduled on a 36-month frequency. Since this preventive maintenance also requires disassembly and removal of the enclosures, local position indication verification of the valves can be readily performed coincident with this maintenance without undue hardship. A 25 percent extension is provided for scheduling flexibility as previously approved.

This requested revision to the previously approved Relief Request VRR-05 would specify that performance of leakage testing to verify closure of valves SI-350A and SI-350B is only required during refueling outages where valve local position indication verification is not performed. The local position indication verification (specified by the Code requirement) is sufficient verification of valve position such that additional leak testing is not required during the same refueling outages.

3.2 NRC Staff Evaluation

As currently approved, VRR-05 requires SI-350A and SI-350B remote position indication verification on a 36 month frequency (i.e., every other refueling outage) +25 percent for scheduling flexibility and a valve leakage test to verify closure every refueling outage. Relief Request VRR-05 Revision proposes to maintain the current remote position indication verification on a 36 month frequency +25 percent for scheduling flexibility and change the leakage test to verify closure to be performed every other refueling outage when remote position indication is not observed locally.

Valves SI-350A and SI-350B are considered to be category B type valves per the ASME OM Code. Category B valves are valves for which seat leakage in the closed position is inconsequential for fulfillment of the required function(s). The OM Code does not require category B valves to be tested for leakage, however, this requirement was added through Relief Request VRR-05 Revision. The addition of a leakage test performed every other refueling outage when remote position indication is not observed locally complements the 36-month interval for remote position indication testing and provides reasonable assurance that the components are operationally ready. Maintaining the current leakage testing every refueling outage represents a hardship without a significant increase in quality and safety. Thus, the licensee's proposed alternative is acceptable.

4.0 Conclusion

As set forth above, the NRC staff finds that the licensee's proposed alternative as set forth in Relief Request VRR-05 Revision provides reasonable assurance that valves SI-350A and SI-350B are operationally ready. All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable.

Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii), and is in compliance with the ASME OM Code's requirements. Therefore, the NRC staff approves Relief Request VRR-05 Revision at KPS for the fourth 10-year IST interval.

Principal Contributor: Michael Farnan

Date: August 22, 2010

August 22, 2010

Mr. David A. Heacock
President & Chief Nuclear Officer
Dominion Energy Kewaunee, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION (KPS) – REVISION OF VALVE INSERVICE TESTING RELIEF REQUEST VRR-05 (TAC NO. ME3352)

Dear Mr. Heacock:

By letter dated February 15, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100470791), Dominion Energy Kewaunee, Inc. (DEK), submitted a revision to Relief Request VRR-05 (henceforth called Relief Request VRR-05 Revision) applicable for the remainder of its fourth 10-year inservice testing (IST) program interval. DEK requested approval of this revision to the alternative previously approved by the Nuclear Regulatory Commission (NRC) staff on March 24, 2006. DEK requested approval to extend leakage testing of two containment sump residual heat removal isolation valves from each refueling outage to each refueling outage when valve remote position indication verification is not observed locally (as specified by the current requirements).

As set forth in the enclosed safety evaluation, the NRC staff finds that DEK's proposed alternative provides reasonable assurance that valves SI-350A and SI-350B are operationally ready. All other American Society of Mechanical Engineers (ASME) OM Code requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii), and is in compliance with the ASME OM Code's requirements. Therefore, the NRC staff approves Relief Request VRR-05 Revision at KPS for the fourth 10-year IST interval.

For questions, please call the Project Manager, Mr. Karl Feintuch (301-415-3079).

Sincerely,
/RA/
Robert J. Pascarelli, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-305
Enclosure:
Safety Evaluation
cc w/encl: Distribution via ListServ
DISTRIBUTION:

PUBLIC	RidsOgcRp Resource	
LPL3-1 Reading	RidsAcrsAcnw_MailCtr Resource	
RidsNrrDorlLpl3-1 Resource	RidsRgn3MailCenter Resource	
RidsNrrPMKewaunee Resource	RidsNrrDciCptb Resource	RidsNrrLABTully Resource

Accession No. **ML101970193**

OFFICE	LPL3-1/PM	LPL3-1/LA	CPTB/BC*	LPL3-1BC
NAME	KFeintuch	BTully /THarris for	AMcMurtray*	RPascarelli
DATE	08/19/10	07/27/10	07/15/10*	08/22/10

*Safety evaluation transmitted by e-mail of 11/30/09 (Accession No ML101960593).

OFFICIAL RECORD COPY