March 10, 2010

MEMORANDUM TO: Michael J. Case, Director
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Michele G. Evans, Director ***/RA/***
Division of Component Integrity
Office of Nuclear Reactor Regulation

SUBJECT: REVIEW OF DRAFT TECHNICAL LETTER REPORT REPLACEMENT OF RADIOGRAPHY WITH ULTRASONICS FOR THE NONDESTRUCTIVE INSPECTION OF WELDS – EVALUATION OF TECHNICAL GAPS (TAC NO.: ME3256)

Your memorandum dated January 26, 2010 to the Division of Component Integrity (DCI), Office of Nuclear Reactor Regulation (NRR), requested NRR to review draft Technical Letter Report written by the Pacific Northwest National Laboratory titled, "Replacement of Radiography with Ultrasonics for the Nondestructive Inspection Welds - Evaluation of Technical Gaps - An Interim Report." This report reviewed publicly available literature pertaining to the reliability and capabilities of ultrasonic testing (UT) and radiographic testing (RT) methods that are used to detect and size flaws at nuclear power plants. The review assessed the applicability of UT as a replacement for RT and assessed the contributions to examination effectiveness attributed to procedure and personnel qualifications.

The report concluded that replacing RT with UT examinations was feasible. However, the effectiveness of an examination was dependent on the method and technique involved and the skill of the person performing the examination. The review identified several issues that were not sufficiently addressed in the publicly available literature. Addressing these issues was recommended as necessary for determining UT examination equivalency with RT.

DCI has reviewed the draft report and finds it to be comprehensive and generally well written; we have no comments on the report. This completes DCI's review of your January 26, 2010 request for review.

CONTACT: Donald G. Naujock, NRR/DCI
301-415-2767

March 10, 2010

MEMORANDUM TO: Michael J. Case, Director
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Michele G. Evans, Director ***/RA/***
Division of Component Integrity
Office of Nuclear Reactor Regulation

SUBJECT: REVIEW OF DRAFT TECHNICAL LETTER REPORT REPLACEMENT OF RADIOGRAPHY WITH ULTRASONICS FOR THE NONDESTRUCTIVE INSPECTION OF WELDS – EVALUATION OF TECHNICAL GAPS (TAC NO.: ME3256)

Your memorandum dated January 26, 2010 to the Division of Component Integrity (DCI), Office of Nuclear Reactor Regulation (NRR), requested NRR to review draft Technical Letter Report written by the Pacific Northwest National Laboratory titled, "Replacement of Radiography with Ultrasonics for the Nondestructive Inspection Welds - Evaluation of Technical Gaps - An Interim Report." This report reviewed publicly available literature pertaining to the reliability and capabilities of ultrasonic testing (UT) and radiographic testing (RT) methods that are used to detect and size flaws at nuclear power plants. The review assessed the applicability of UT as a replacement for RT and assessed the contributions to examination effectiveness attributed to procedure and personnel qualifications.

The report concluded that replacing RT with UT examinations was feasible. However, the effectiveness of an examination was dependent on the method and technique involved and the skill of the person performing the examination. The review identified several issues that were not sufficiently addressed in the publicly available literature. Addressing these issues was recommended as necessary for determining UT examination equivalency with RT.

DCI has reviewed the draft report and finds it to be comprehensive and generally well written; we have no comments on the report. This completes DCI's review of your January 26, 2010 request for review.

CONTACT: Donald G. Naujock, NRR/DCI
301-415-2767

DISTRIBUTION:

DCI R/F ABergman SRichards ACsontos WNorris LKim HCruz
MOrenak PPatnaik

ADAMS Accession No.: ML100700107

OFFICE	NRR/DCI/CPNB	NRR/DCI/CPNB	NRR/DCI
NAME	DNaujock	TLupold	MEvans
DATE	02/22/2010	03/08/2010	03/10/2010

OFFICIAL RECORD COPY