February 13, 2009

MEMORANDUM TO: Allen L. Hiser, Jr., Chief
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

FROM: Matthew G. Yoder **/RA/**
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

SUBJECT: ARGONNE NATIONAL LABORATORY TECHNICAL LETTER REPORT ON EVALUATION OF ALUMINUM HYDROXIDE SURROGATE STABILITY AT ELEVATED pH (TAC NO. MD5538)

Argonne National Laboratory (ANL) has been providing technical assistance to the U.S. Nuclear Regulatory Commission (NRC) Staff in the Steam Generator Tube Integrity and Chemical Engineering Branch (CSGB) to help evaluate certain aspects of GSI-191 chemical effects. The enclosed document, "Technical Letter Report on Evaluation of WCAP Aluminum Hydroxide Surrogate Stability at Elevated pH," provides the results from both bench top and vertical head loss loop testing performed at ANL. In previous tests, the characteristics of this surrogate were explored only at near neutral water chemistry. The main objective of these tests is to evaluate whether or not aluminum hydroxide surrogates generated using the WCAP-16530 procedure are affected by elevated pH. These tests showed that the surrogate remains stable in the alkaline pH range tested, but may require greater quantities than surrogate at neutral pH to produce equivalent head loss across a fiber bed.

Enclosure:
As stated

CONTACT: Matthew G. Yoder, DCI/CSGB
(301) 415-4017

February 13, 2009

MEMORANDUM TO: Allen L. Hiser, Jr., Chief
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

FROM: Matthew G. Yoder **/RA/**
Steam Generator Tube Integrity and
Chemical Engineering Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

SUBJECT: ARGONNE NATIONAL LABORATORY TECHNICAL LETTER REPORT ON EVALUATION OF ALUMINUM HYDROXIDE SURROGATE STABILITY AT ELEVATED pH (TAC NO. MD5538)

Argonne National Laboratory (ANL) has been providing technical assistance to the U.S. Nuclear Regulatory Commission (NRC) Staff in the Steam Generator Tube Integrity and Chemical Engineering Branch (CSGB) to help evaluate certain aspects of GSI-191 chemical effects. The enclosed document, "Technical Letter Report on Evaluation of WCAP Aluminum Hydroxide Surrogate Stability at Elevated pH," provides the results from both bench top and vertical head loss loop testing performed at ANL. In previous tests, the characteristics of this surrogate were explored only at near neutral water chemistry. The main objective of these tests is to evaluate whether or not aluminum hydroxide surrogates generated using the WCAP-16530 procedure are affected by elevated pH. These tests showed that the surrogate remains stable in the alkaline pH range tested, but may require greater quantities than surrogate at neutral pH to produce equivalent head loss across a fiber bed.

Enclosure:
As stated

CONTACT: Matthew G. Yoder, DCI/CSGB
(301) 415-4017

DISTRIBUTION:

DCI R/F	RTorres	RTregoning	JBurke
SSmith	EWong	JLehning	

ADAMS ACCESSION NO.: ML090480294

OFFICE	NRR/DCI/CSGB	NRR/DCI/CSGB
NAME	MYoder /RA/	AHiser /RA/
DATE	01/14/2009	02/13/2009

OFFICIAL RECORD COPY