

February 15, 2006

MEMORANDUM TO: John T. Larkins, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Mark A. Cunningham, Director /RA/
Division of Engineering Technology
Office of Nuclear Regulatory Research

SUBJECT: CLOSEOUT OF GENERIC SAFETY ISSUE 188, "STEAM
GENERATOR TUBE LEAKS OR RUPTURES CONCURRENT
WITH CONTAINMENT BYPASS FROM MAIN STEAM LINE OR
FEEDWATER LINE BREACHES"

The Office of Nuclear Regulatory Research (RES) has completed its technical assessment of Generic Safety Issue (GSI)-188, "Steam Generator Tube Leaks or Ruptures Concurrent with Containment Bypass from Main Steam or Feedwater Line Breaches." The principal assertion of GSI-188 was that the dynamic loads induced in steam generator (SG) tubes from a main steam line break (MSLB) or other secondary side breaches could lead to the growth of cracks and increased SG tube leakage or ruptures outside the range of analyses and experiments performed by the staff. The staff presented the technical findings related to GSI-188 at the 509th meeting of the ACRS Full Committee on February 5, 2004. Prior to that meeting, the ACRS Subcommittees on Thermal-Hydraulics Phenomena and Materials and Metallurgy met with representatives of RES and its research contractors on February 3-4, 2004, to review the results and progress on the Steam Generator Action Plan (SGAP) items. The results related to SGAP item 3.1 addressing the potential for damage progression of SG tubes during an MSLB or other secondary side depressurization scenarios were reviewed in detail. The ACRS completed its review of the staff's progress during the Committee's 512th meeting and sent its conclusions to the EDO on May 21, 2004 (See ADAMS ML041450305). In so doing, the ACRS concluded that, "The analyses of the effects of depressurization during an MSLB on tube integrity have been completed, and Item 3.1 is appropriately closed out."

The technical assessments of GSI-188 are summarized in the enclosed NUREG-series report, which the RES staff will publish and make publicly available. The technical work conducted to address this issue led to its closure with no changes to existing regulations or guidance. The staff closed GSI-188 by memorandum dated December 16, 2005.

Enclosure:
NUREG (ADAMS Accession No. ML052690189)

