

March 25, 2005

MEMORANDUM TO: James E. Dyer, Director
Office of Nuclear Reactor Regulation

FROM: Carl J. Paperiello, Director */RA/ Carl J. Paperiello*
Office of Nuclear Regulatory Research

SUBJECT: IMPENDING PUBLICATION OF NUREG/CR-4667, VOL. 33,
"ENVIRONMENTALLY ASSISTED CRACKING
IN LIGHT WATER REACTORS, ANNUAL REPORT,
JANUARY – DECEMBER 2002"

I am forwarding for your information the attached printed and electronic copies of NUREG/CR-4667, Vol. 33, which is the Calendar Year 2002 annual report for the Argonne National Laboratory (ANL) study of environmentally assisted cracking in light water reactors (Program Y6388). The ANL program includes multiple tasks to address (1) environmental degradation of fatigue life with implications for ASME Section III design curves and fatigue analysis, (2) irradiation-assisted stress-corrosion cracking and other degradation modes of irradiated reactor internal materials, and (3) crack growth rates of nickel-base alloys, including weld metals, that are used as vessel penetration materials. The results described in this report address User Need Requests NRR-2002-018, NRR-2002-026, NRR-2003-028 and NRR-2003-001.

The Office of Nuclear Regulatory Research plans to submit this report for publication in 2 weeks. Please feel free to contact me or Dr. William H. Cullen of my staff (at 301-415-7510 or WHC@nrc.gov) if you have any questions concerning the impending issuance of this report.

Attachment: As stated

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