MEMORANDUM FOR: Mohamed M. Shanbaky, EPRPB, DRSS, Region I Charles M. Hosey, EPRPB, DRSS, Region II L. Robert Greger, EPRPB, DRSS, Region III Ronald E. Baer, RPSB, DRSS, Region IV Gregory P. Yuhas, EPRPB, DRSS, Region V

50-220,410

FROM:

James E. Wigginton, Section Chief Radiation Protection Branch Division of Radiation Protection and Emergency Preparedness

Office of Nuclear Reactor Regulation

SUBJECT:

CONCERN ABOUT CHLORIDE FROM LEAD BLANKET (PVC)

Region I alerted my branch (PRPB) to a licensee practice that could increase occupational worker dose when using lead-blanket (wrap-type) shielding. The engineering department at Nine Mile Point has established a policy that requires a protective wrap barrier to protect stainless steel piping from potential intergranular stress corrosion cracking (IGSCC) resulting from the polyvinyl chloride (PVC) component of the lead blanket shielding. Nine Mile Point references a General Electric (GE) document [NEDE-31295P (June 1986)] and claims that the plant practice is consistent with the NEDE guidance.

PRPB contacted GE technical staff (San Jose, California) and discussed the plant's practice. During a telephone conference call, the GE expert on the referenced NEDE document concluded that Nine Mile Point was being overly conservative and had misinterpreted the GE guidance. GE feels that there is no real problem with properly using PVC-lead blankets (in the absence of high temperature and chemical degradation), with an effective control program that ensures shielding removal from the piping prior to system operation.

While the plant's conservative actions are somewhat understandable (the plant having replaced reactor coolant recirculation piping because of IGSCC) it appears there is little or nothing to gain by applying the protective coverings before installing the shielding that can justify the attendant additional person-rem increases.

Original signed by James E. Wigginton

12 James of Wigginton, Section Chief Radiation Protection Branch Division of Radiation Protection and Emergency Preparedness Office of Nuclear Reactor Regulation

DRIVER

cc: R. E. Masse, INPO C. J. Wood, EPRI

Distribution: FJCongel, NRR WDTravers, NRR RLNimitz, RI

LJCunningham, NRR RJBarrett, NRR

JEWigginton, NRR CEMcCracken, NRR Central Files

ODLynch, NRR AKRoecklein, RES RPB R/F

SC! RPB: DREP JEWigginton:bt 08/20/88

RD-8-3 Pipe Crock