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D. Caphton, RO:I

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THRU: G. W. Reinmuth, Chief, Technical Assistance Branch, RO

The GE investigation of Millstone Point chloride contamination and related hardware failures can be considered generally satisfactory. The examinations are being performed in accordance with good practice, although the overall program appears somewhat weak in direction and coordination. Some phases of the investigation lacked sufficient depth. The LPRM analysis, for example, which was considered by GE to be essentially complete, failed to positively identify the failure mechanism or cause. Since the visit, this phase has been extended to include additional examinations. Likewise, sufficient data was not available at the time of the visit to determine the specific cause and mechanism of the feedwater sparger failures. This examination is continuing. A complete stress analysis of the sparger assembly including fatigue analysis, is also required as a part of the failure evaluation. Such analysis is reportedly in progress.

From the limited physical observation to date, the cracking mechanism appears to be related to fatigue or stress - corrosion. It is possible that both mechanism are involved. Additional examinations can be expected to provide better definition of the controlling failure mode.

Although some localized sensitization was observed, none of the cracking examined at this time was associated with sensitized material.

Additional work is also needed to better define and understand the LPRM failures. Because of the observed severe crevice attack, the reactor vessel internals and other main loop components should be reviewed for existance of similar environmental conditions.

Examination of nitrided stainless steel components, identification and review of other sensitized stainless steel items in the system and review of all thermal sleeve and safe end materials and fabrication history have already been included in the GE program. Likewise, GE intends to repeat the high-chloride, short time corrosion test program to better simulate the assumed reactor environment at the time of the chloride incident. D. Caphton

Because of the limited data available at this time and satisfactory cooperation by GE in scoping and discussing the results of their test program. I feel that it is premature to decide whether independent failure analysis should be undertaken by RO. GE was advised that we are considering this approach. I believe that an additional 1-2 weeks will be needed to develop more meaningful information on this problem.

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Uldis Potapove Senior Matallurgical Engineer Technical Assistance Branch, RO

cc: H. D. Thorhburg R. H. Engelken J. G. Keppler J. P. O'Reilly

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