



## ATTACHMENT TO LER 80-10/1T

During completion of as-built verification inspections, performed in accordance with I&E Bulletin 79-14, a total of five seismic type supports were determined missing from High Pressure Safety Injection lines 3"-SI-1501R-10 and 3"-SI-1501-R-12. Four of these were initially determined to jeopardize the operability of portions of the HPSI system on Saturday, June 21 and were reported via telephone. Subsequently, two other seismic type supports determined to have excess gap, one on High Pressure Safety Injection line 3"-SI-1501R-9 and one on charging line 3"-CH-2401R-170. These two supports in addition to the other missing support, were also determined to jeopardize the operability of portions of the HPSI and Charging Systems. These were reported in the Preliminary Report as was done similarly on LER 79-11/1P.

Three of the missing restraints were called for on early revisions of the piping drawings which showed the pipe lines located in the containment outer annulus pipe racks. The drawings have a note which requires that a typical type of restraint be added every other rack, to limit pipe movement in the horizontal plane. Apparently, the obscurity of the drawing notation was a major factor which led to this oversight.

Three of the remaining supports were not installed per the drawing and the fourth apparently was missed during original construction of the plant.

Initial Engineering review of the pipe seismic capabilities was based on a conservative hand calculation. More detailed computer calculations would have been time consuming and difficult to complete in the evaluation time span required by Bulletin 79-14, especially since the supports were originally located based on conservative general support locating criteria, rather than computerized calculation.

The existing restraint design has been replaced with an improved design for three of the missing supports on 3"-SI-1501R-10. These modified restraints have been installed as required to restore the seismic operability of the affected piping. The remaining supports have also been installed or repaired as required to restore the seismic operability.