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**To:** "Tom Alexion" <tw@nrc.gov>  
**Date:** 9/30/02 10:14AM  
**Subject:** ANO-1 Actions for TMI SG Tube Sever Concern

Tom,

See attached notes for Call tomorrow

## **Entergy Actions for TMI Tube Sever Concerns for ANO-1**

### **ANO-1 Scope of Potential Concern**

- ANO-1 did not install Westinghouse or B & W I-600 mechanical rolled plugs during the 1980's. Instead, ANO-1 used either welded, ribbed or explosive plugs
- The first rolled plug was installed in the ANO-1 OTSG's in 1992 which was Alloy-690 material.
- Review of past outage eddy current data revealed no wear indications have ever been detected at the tubesheet face
- ANO worked with Framatome, based on the criteria presented at the Feb. 1, 2002 meeting with the NRC, to determine the susceptible plugged tube list
- List included:
  - UTS plugs removed and replaced at a later date,
  - UTS plugs installed could have leaked and another type of plug was placed in the tube to seal the water in the tube,
  - I-690 plugs installed was rerolled/retorqued at a later date to possibly seal in water
- A total of 12 tubes were determined to be susceptible to possible tube swelling

### **Entergy Planned Actions During 1R17 Outage**

- ANO has no plans to remove any plugs during 1R17
- All susceptible tubes have been evaluated and a total of 63 neighboring tubes will be plugged. 4 stabilizers will be installed in the upper span due to the industry operating experience events
- Some tubes will be plugged as an extra "buffer zone" downstream of plugged tubes
- Eddy Current Analysis will be performed on all tubes surrounding susceptible tubes to ensure no wear is seen on tubes prior to plugging/stabilizing

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