

## OHara, Timothy

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**From:** OHara, Timothy *RE*  
**Sent:** Wednesday, April 07, 2010 7:09 AM  
**To:** Balian, Harry; Schroeder, Daniel; Modes, Michael  
**Cc:** Conte, Richard; Burritt, Arthur; Cline, Leonard  
**Subject:** RE: Buried AFW Piping

Gentlemen,

This is a good summary by Harry, but it misses a key point.

The concern here is that Guided Wave testing is "NOT" a qualified technique for making wall thickness measurements on this piping. Guided Wave is qualitative only. Harry quotes 35% degradation, however that is not a true "measurement" because it was done with Guided Wave.

I cautioned several PSEG folks about this yesterday, 4/7. The only true readings which have been taken are those from the pipe section which has been cleaned and measured by the PSEG qualified NDE process. To be sure about the rest of the pipe it will need to be excavated and tested with a qualified UT process. The failure here is that the coating did not perform it's function - so there is a concern everywhere there is supposed to be coating.

I will discuss this situation with NRR and LR and get their feeling about this as soon as I can.

Tim OHara

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**From:** Balian, Harry  
**Sent:** Tuesday, April 06, 2010 7:50 PM  
**To:** Schroeder, Daniel  
**Cc:** OHara, Timothy; Conte, Richard; Burritt, Arthur; Cline, Leonard  
**Subject:** Buried AFW Piping

I walked the excavation down - the covers were removed today. I clearly observed standing water and four services. Spoke with Len Raj.... and learned the following:

- Two excavations planned to completed the wave form coverage and to corroborate the first wave form test results with independent UTs.
- Current (back of the envelope calcs) indicate PSEG will be able to demonstrate operability with the current degradation of 35% of wall thickness (65% remaining). This Op Eval will probably rely on BOTH the strength of the remaining material and the lower pressures AFW would typically see.
- Unit 2 has greater margin
  - new plant is presumably in better condition;
  - documentation exists that proves the piping was opened and inspected ~10 years ago and found to be in pristine condition;
  - ISI code gives more allowance to an operating unit (they can take credit for up to 90% of the yield stress)

The four services are:

- AFW to 12 steam generator
- AFW to 14 steam generator
- service or control air line (I'm thinking MS10s) - exterior of this pipe looks the same as the AFW pipes.
- an electrical cable - Len does not know what the cable serves but it appeared to be in good condition.

I left an *ad hoc* vertical slice drawing for you (original on Dan's desk, copies on Tim's and Rich's desk).

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I left relevant P&IDs on Tim's desk.

Len stated that he requested that the standing water be sampled for tritium.

Harry Balian

(856) 339 - 1041 - office

(b)(6)

cell

(856) 521 - 0005 - home