



**FPL Energy**  
**Seabrook Station**

**FPL Energy Seabrook Station**  
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June 10, 2008

Docket No. 50-443  
SBK-L-08085

U.S. Nuclear Regulatory Commission  
Attn.: Document Control Desk  
Washington, DC 20555-0001

Seabrook Station  
OR12 Structural Weld Overlay Examination Results

References:

1. E-mail, Miller, NRR, to O'Keefe, FPLE, Re: Summary of Verbal Relief, dated April 1, 2008 (ML080920425).
2. Letter, Chernoff, NRR, to St. Pierre, FPLE, Re: Evaluation of Relief Request Alternative to Install Weld Overlays on Pressurizer Dissimilar Metal Welds, dated May 1, 2008 (TAC No. MD5933).

In accordance with the referenced e-mail and letter, FPL Energy Seabrook, LLC encloses the 60-day report of the OR12 structural weld overlay examination completed on April 22, 2008.

Should you have any questions regarding the examination results, please contact Michael Ossing, Engineering Support Manager, at (603) 773-7512.

Very truly yours,

FPL Energy Seabrook, LLC

Gene St. Pierre  
Site Vice President

cc: S.J. Collins, NRC Region I Administrator  
G.E. Miller, NRC Project Manager, Project Directorate I-2  
W.J. Raymond, NRC Senior Resident Inspector

A047  
NRR

ENCLOSURE TO SBK-L-08085

### Summary of NDE results for Pressurizer Weld Overlay

Location	PT of Base Metal Results	PT of Barrier Layer and In-Process Repair Results	Post Overlay Surface Exam Results	Post Overlay UT Exam Results
PZR A Safety Nozzle	No Recordable Indications (NRI)	<p>NRI, Barrier Layer</p> <ul style="list-style-type: none"> <li>- Indications adjacent to the barrier layer were identified during the barrier layer PT. Excavation performed</li> </ul> <p>Excavation PT</p> <ul style="list-style-type: none"> <li>- Indications identified after grinding. Excavated to a depth of ~.220"</li> </ul> <p>PT of Excavation area after weld restoration to base material - NRI</p> <p>PT of SWOL excavation to remove volumetric (UT) indication - NRI</p>	<p>NRI prior to excavation of volumetric indications</p> <p>NRI after volumetric indication removal</p>	<p>Five indications were recorded. Four were laminar, lack of bond (LOB) indications and one was planar. Below are the dimensions and dispositions of the indications.</p> <p>Ind. # 1 – 9.80”L x .30”W, Reject            Ind. # 2 – 1.00”L x .30”W, Accept            Ind. # 3 – 1.90”L x .30”W, Accept            Ind. # 4 – 0.50”L x .30”W, Accept            Ind. # 5 – 2.00”L x .30”W, Reject</p> <p>Indications # 1 &amp; # 5 excavated and repaired. Indication # 3 was removed/repaired due to it’s proximity to the repair cavity. Post repair UT was acceptable.</p> <p>Indications # 2 and # 4 remain after repairs</p> <p>UT examination achieved full coverage of both the ISI and PSI examination volumes.</p>
PZR B Relief Nozzle	NRI	NRI	NRI	<p>The UT exam was acceptable. Three indications were reported. Two were lack of bond (LOB); the other was planar and located within the ISI volume of the original dissimilar metal weld base material. Below are the dimensions and dispositions of the indications.</p> <p>Ind. # 1 – 1.10”L x .30”W, Accept            Ind. # 2 – 0.80”L x .20”W, Accept            Ind. # 3 – 1.2”L Accept per analysis of weld overlay design by vendor.</p> <p>UT examination achieved full coverage of both the ISI and PSI examination volumes</p>

Location	PT of Base Metal Results	PT of Barrier Layer and In-Process Repair Results	Post Overlay Surface Exam Results	Post Overlay UT Exam Results
PZR C Safety Nozzle	NRI	NRI, Barrier Layer PT of SWOL excavation to remove volumetric (UT) indication - NRI	NRI prior to excavation of volumetric indications  NRI after volumetric indication removal	One circumferential lack of bond indication was reported in the nozzle radius to taper transition area. The indication dimensions and disposition is below.  Ind. # 1 – 13.2”L x .40”W, Reject  Indication # 1 excavated and repaired. The UT of the repair area was acceptable. Two lack of bond indications were reported, their dimensions are listed below  Ind. # 1 – .50”L x .30”W Ind. # 2 - .40”L x .30”W  UT examination achieved full coverage of both the ISI and PSI examination volumes
PZR D Safety Nozzle	NRI	NRI, Barrier Layer PT of SWOL excavation to remove volumetric (UT) indication - NRI	NRI prior to excavation of volumetric indications  NRI after volumetric indication removal	Two circumferential lack of bond indication were reported. One was at the nozzle radius to taper transition area and the other was over the safe end material at the interface of the weld overlay and the base material. Below are the dimensions and dispositions of the indications.  Ind. # 1 – 4.7”L x .30”W, Reject Ind. # 2 – 29.0”L(360°) x .40”W, Reject  Indications # 1 & # 2 excavated and repaired. The UT of the repair areas was acceptable. Two lack of bond indications were reported, their dimensions are listed below  Ind. # 1 – .70”L x .20”W Ind. # 2 - .70”L x .20”W  UT examination achieved full coverage of both the ISI and PSI examination volumes
PZR Spray Nozzle	NRI	NRI	NRI	The UT exam was acceptable. Three indications were recorded in the original dissimilar metal weld base material. These indications are below the ISI examination volume.  UT examination achieved full coverage of both the ISI and PSI examination volumes.

Location	PT of Base Metal Results	PT of Barrier Layer and In-Process Repair Results	Post Overlay Surface Exam Results	Post Overlay UT Exam Results
PZR Surge Nozzle	NRI	<p>NRI, Barrier Layer</p> <p>PT of SWOL excavation to remove volumetric (UT) indication - NRI</p>	<p>NRI prior to excavation of volumetric indications</p> <p>NRI after volumetric indication removal</p>	<p>Four circumferential indications were reported/recorded. One was a lack of bond (LOB) and the other three were located within the original dissimilar metal weld base material outside the ISI examination volume. Below are the dimensions and dispositions of the indications.</p> <p>Ind. # 1 – 51.8'L (360°)x .30"W, Reject</p> <p>Ind. # 2, # 3 and # 4 were recorded for future reference and were not evaluated.</p> <p>Indication # 1 excavated and repaired. The UT of the repair was acceptable. UT examination achieved full coverage of both the ISI and PSI examination volumes.</p>