



SUPPLEMENT 11

PDI OVERLAY DEVELOPMENT PROGRAM

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Overlay

▼ **Program Development**

- PDA has drafted code case was submitted during ASME December meeting which includes required changes and has been approved by Sub-group NDE
- Fabrication program put on fast track

Overlay Sample Design

▼ **Sample Design Underway**

- Minimum Size 4.0” Diameter with 0.20” overlay thickness
- Maximum Size 28.0” Diameter with a .85” overlay thickness
- Existing 12.0” samples to be incorporated into test sets
- 5-6 Test Sets to be fabricated

▼ **Flaw Types**

- Combination of In-situ cracks, Simulated IGSCC, HIP bonded Flaws, Lack of Fusion(Bond) and contamination cracking

▼ **Fabrication Status**

- 4.0”, 6.0” and 28” Diameter samples are being welded

Overlay Test Set Design

- ▼ **Test Set will be separated into the following categories**
 - Detection (ISI/PSI)
 - Sizing (ISI/PSI)
 - False Calls (ISI/PSI)
- ▼ **Test will be administered together, but graded separately**
- ▼ **Each part of test will contain a minimum of 10 flaws**
- ▼ **Each part of test will include approximately 3 - 4 samples (8 samples total)**

Overlay Grading

▼ **Detection**

- 80% Detection required in each category

▼ **Sizing**

- Depth
 - .125" RMS
- Length
 - .75 RMS

▼ **False Calls**

- $\leq 20\%$

Schedule

▼ **Fabrication activities are presently underway**

- January RFP issued
- February Award Contract(s) and Order Samples
- April-June Receive Samples and perform Fingerprint
- August start of testing



NRC Actions

▼ **PDI Welcomes Subject Matter Expert Review the Following;**

- Sample Design
- Flaw Implantation Process
- Test Set Design