



# **PDI Processes to be Applied to the Team Scanning Effectiveness Evaluations**

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# Scope of Demonstration

- Purpose of experiment
  - To assess the effectiveness of team scanning during non-encoded ultrasonic examinations.
- Method of team scanning
  - For this experiment, team scanning shall be performed in accordance with the guidance developed for team scanning by the NIFG and using PDI generic procedures PDI-UT-1, PDI-UT-2 and PDI-UT-10, as applicable.
- Goal of experiment
  - The results of this experiment may be used to strengthen the guidance developed by the NIFG for team scanning.
  - Multiple assessments may be performed, if necessary to develop adequate guidance to ensure consistent performance of team scanning.

# Ground Rules of Demonstration

- Team make-up requirement
  - The primary technician responsible for the examination results shall be certified to Level II or III in ultrasonic testing
  - The secondary (scanner) technician shall meet the minimum requirements recommended in PDI Policy 03-02 to perform that function
    - Certified to at least Trainee per CP-189 and Section XI, App. VII
- Team responsibilities
  - The designated primary technician shall be responsible to detect, interpret, or record indications in accordance with the procedure, accept that all scanning and manipulation of the search unit, application of couplant, and all other activities performed in contact with the test specimens shall be performed by the secondary technician.
  - The secondary technician shall only perform examination functions as verbally or visually directed by the primary technician.

# Ground Rules of Demonstration (continued)

- Pre-job brief
  - Shall be conducted prior to the start of the testing
- Practice
  - Practice specimens shall be made available prior to the start of the test
  - The team may also practice on the next sample type prior to starting a new phase of the test
- Communication during the test
  - The primary and secondary technician shall be allowed to maintain visual and verbal communication during the entire demonstration
  - The ultrasonic instrument display may be monitored by the secondary technician during the demonstration, either directly or by use of a secondary monitor
- Administration
  - This demonstration will be administered by EPRI PD Program staff trained to administer Appendix VIII piping qualifications.

# Ground Rules of Demonstration

- The demonstration will be conducted in accordance with the applicable EPRI PD Program Quality Program Instructions, except as modified by the NIFG Protocol to Assess the Effectiveness of Team Scanning, Rev. A.
  - The PD Program Manager may approve appropriate deviations from the PD Program instructions
- Each phase of the test will contain a different type of test samples, based on Supplement 2, 3 or 10 of ASME Section XI, Appendix VIII.
- The team shall be presented with test samples in the following phases:
  - Phase one – ferritic piping samples (Supplement 3)
  - Phase two – austenitic piping samples (Supplement 2)
  - Phase three – dissimilar metal weld piping samples (Supplement 10)

# Ground Rules of Demonstration

- The specimens in each phase will contain a minimum of five flawed grading units and ten unflawed grading units.
- Once presented with a phase of samples, the team shall only be allowed to advance to the next phase if they successfully detect and record all the flaws in the current phase, in accordance with the applicable examination procedure
- Acceptance Criterion
  - Team scanning shall be considered effective if all the intended flaws are successfully detected and recorded in accordance with the applicable procedure criteria.

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