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# *PDI Piping & Bolting Program Update*

**Spring/Summer 2005**

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# *Spring Sessions 2005*

## ▼ First two sessions of the year were essentially full

- Session 107 (January) 26 Candidates
  - 8 Candidates from Spain (3 from NORCA, 5 from Tecnatom)
  - Candidates from multiple vendors made up the rest

- Session 108 (February) 12 Candidates
  - 4 utility personnel
  - 8 vendor personnel

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# Summer Sessions 2005

- Minimum session size is 5 candidates – maximum capacity is 16 candidates. If the minimum session size cannot be achieved the session may be cancelled.
- All candidates must have a completed registration form on file in order to secure session seating.
- Be aware of the PDI Cancellation Policy
- Room is still available in all sessions

| Session | Start | Finish |
|---|---|---|
| 110 | May 2 | May 30 |
| 111 | June 6 | July 1 |
| 112 | July 6 | July 29 |
| 113 | August 1 | August 31 |

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# General Program Update

- **Signed PDQS documents now on the Website**
  - Signature page of the PDQS is scanned
- **"Open" DM samples are ready for use**
  - Maybe used for technique development & practice
- **New Table 1 use guide is on the website**
  - Updated information, including new equipment
- **Table 1 for PDI-UT-10 no longer contains focal depth or squint angle**
  - This will be on the web as soon as the next revision of PDI-UT-10 is approved (end of June?)
- **2" Weld Overly Samples are in the program**
  - Candidates need to expand PDQS range down to 2"

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# General Program Update

- **Increased security protocols for automated demonstrations are now in place**
  - Vendors need to be aware prior to the demonstration
    - Vendors will be required to sign a liability release form prior to starting any demonstration activity
    - ALL hard drives used in the course of the demonstration will be wiped devoid of all data including applications and operating system
    - "Ghosting" software may be used to create a pre-demonstration image of the drive then re-installed after the completion of all demonstration activities
    - Very tight control of all removable media
  - No latitude on these increased security measures

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# General Program Update

## ▼ Current issues...

- USN 58 sw / USN 60 sw
  - KB has replaced the spike pulser in the older versions with a new square wave pulser. They use firmware within the instrument to simulate a spike pulser. In accordance with
  - Must be considered as a new instrument IAW Appendix VIII & the PDI Program
  - New models not qualified for use, except the USN 58R
    - *See the new Table 1 use guide (website)*
  - New models are at EPRI & available for Candidates to use
    - *Should we pursue funding to qualify instruments internally?*

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# General Program Update

## ▼ Current issues...

- Lending of EPRI NDE Center transducers
  - Needs to be requested by member utility
  - Utility should not count on the use of these search units
    - *In many cases we have only one set*
    - *Probes may have been borrowed by another member*
    - *Probes may be needed for demonstration work*

- Bottom line...
  - Borrowing these probes should be considered as a last resort and not a plan of action
  - Plan ahead... DM walk down information, etc...

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# Additional Activities in 2005

## ▼ Continue moving towards a "Reduced Paper" environment

- Effort continues to automate the PDI Program
  - Computer "kiosks" in the demonstration labs
    - *Candidate report forms*
    - *Inventory and calibration sheets*
  - Databases to link all candidate records

- Still a lot of work to be done

- These improvements could help to automate the process further resulting in reduce costs, faster through put and reducing the opportunities for human error

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# On the horizon...

## ▼MRP Butt Weld Inspection and Evaluation Guideline (MRP-139) is coming...

- The MRP is preparing to issue mandatory guidelines for ISI of PWR Alloy 600/182 butt welds. These guidelines (MRP-139) are currently undergoing final review and approval and are expected to be issued mid-summer 2005. The guidelines categorize PWR butt welds according to several factors such as:

  - Material resistance to PWSCC
  - Whether ASME Appendix VIII qualified examination has been performed
  - Condition of weld (uncracked or cracked)
  - Application of mitigation process
  - Location temperature

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# On the horizon...

## ▼MRP-139 cont...

- Examination frequencies are specified according to the category. These examination frequencies exceed ASME Section XI frequencies for many of the categories. Therefore, it is expected that the number of butt weld examinations performed each outage season will increase when the Guidelines are implemented beginning with the spring 2006 outages.
- The purpose of this letter is to inform inspection vendors of the impending release of the guidelines to allow sufficient time for you to evaluate the capacity of your resources to address the expected increase in inspection frequency. For example, this is the appropriate time to consider scheduling qualification activities for procedures and personnel.

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# On the horizon...

- **MRP-139** The time to look ahead is now...
  - More DM weld locations will need to be inspected
    - *How many / what configurations?*
      - *Are the configurations qualified?*
      - *Is the surface condition acceptable?*
      - *Will you need a site-specific mock-up?*
      - *Will you need specialty transducers?*
      - *Is necessary equipment qualified for use?*
      - *Are there enough DM qualified personnel available?*
      - *Contingency plan for WOR?*
    - *Need to use your DM walk down information to prepare for inspections*

- New DM sample configurations are being added to the PDI sample inventory this year

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# On the horizon...

## ▼ More preemptive weld overlays?

- Need more Overlay qualified personnel?
- Need to expand existing qualifications to include 2″ overlays?
  - *Currently there are only 2 people in the industry qualified to 2″ Overlays*
  - *Expansion test should only take 1 day*
  - *Small number of samples*
- PDI Program currently has one preemptive overlay mock-up
  - *Pressurizer nozzle weld*

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# On the horizon...

## ▼ More preemptive weld overlays? Cont...

- Preemptive overlays require extensive up-front planning, especially for "non-standard" overlays
  - *Design for inspection*
  - *Gathering of pre-overlay information*
    - *Accurate OD profile information*
    - *ID profile information*
    - *"Tools" for accurately positioning and sizing of indications*
  - *Qualification concerns*
    - *Personnel qualifications*
    - *Equipment qualifications*