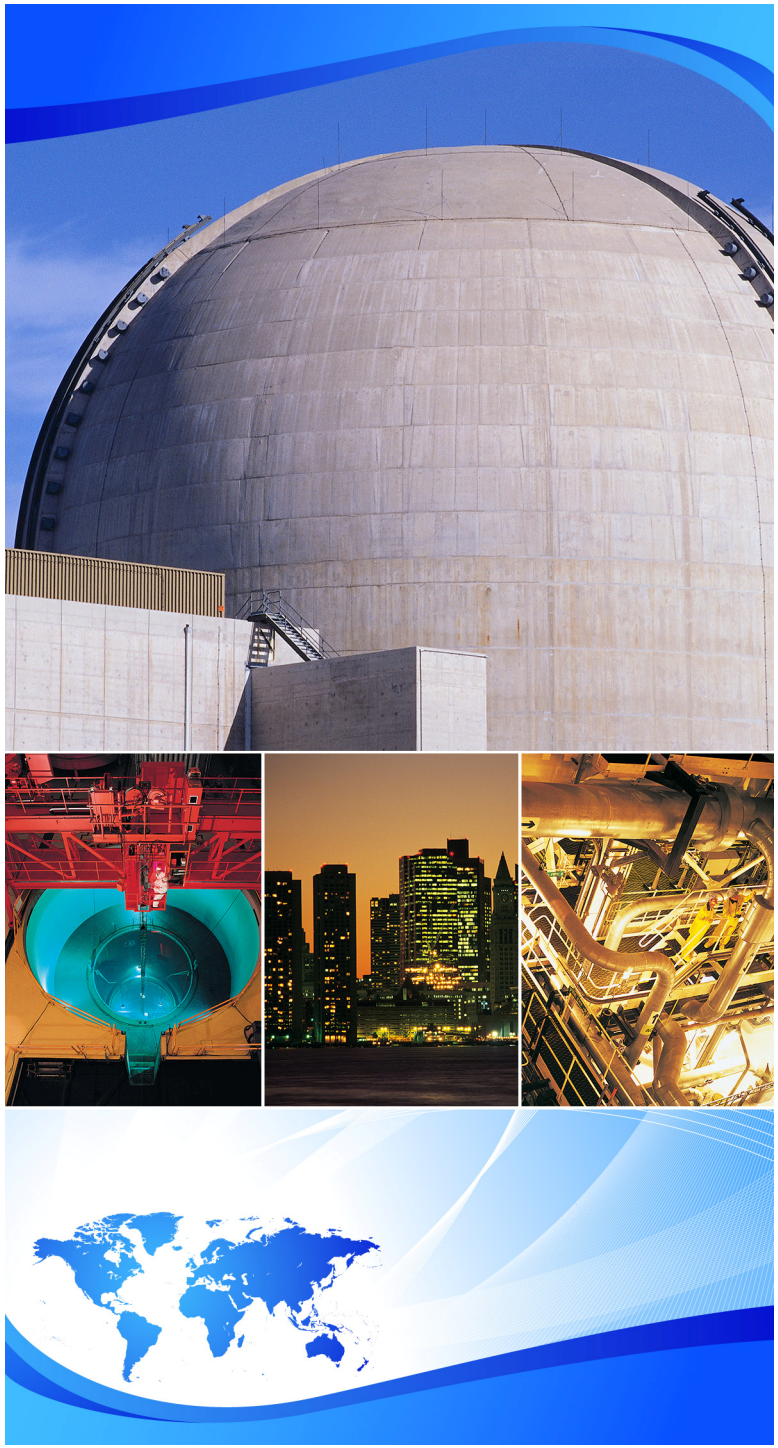

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Spring Industry Dissimilar Metal Weld Examination Update

NRC/PDI Meeting
May, 2009

Carl Latiolais
Senior Program Manager
Appendix VIII Performance Demonstration
EPRI NDE Center

Objective

- Provide overview of Spring 2009 examination results

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Nine Mile Unit 1

- During a regular scheduled examination axial indications were reported in two separate dissimilar metal welds
- Indications were clearly located in 316SS safe-end
  - Not in weld
- Indications did not obtain characteristics indicative of SCC
  - Straight
  - Uniformed
- Review of 1999 data showed the indications were also present
  - Same size
  - Similar characteristics
- Utility conservatively treated them as flaws and evaluated them in accordance with IWB-3500 and they were found to be acceptable

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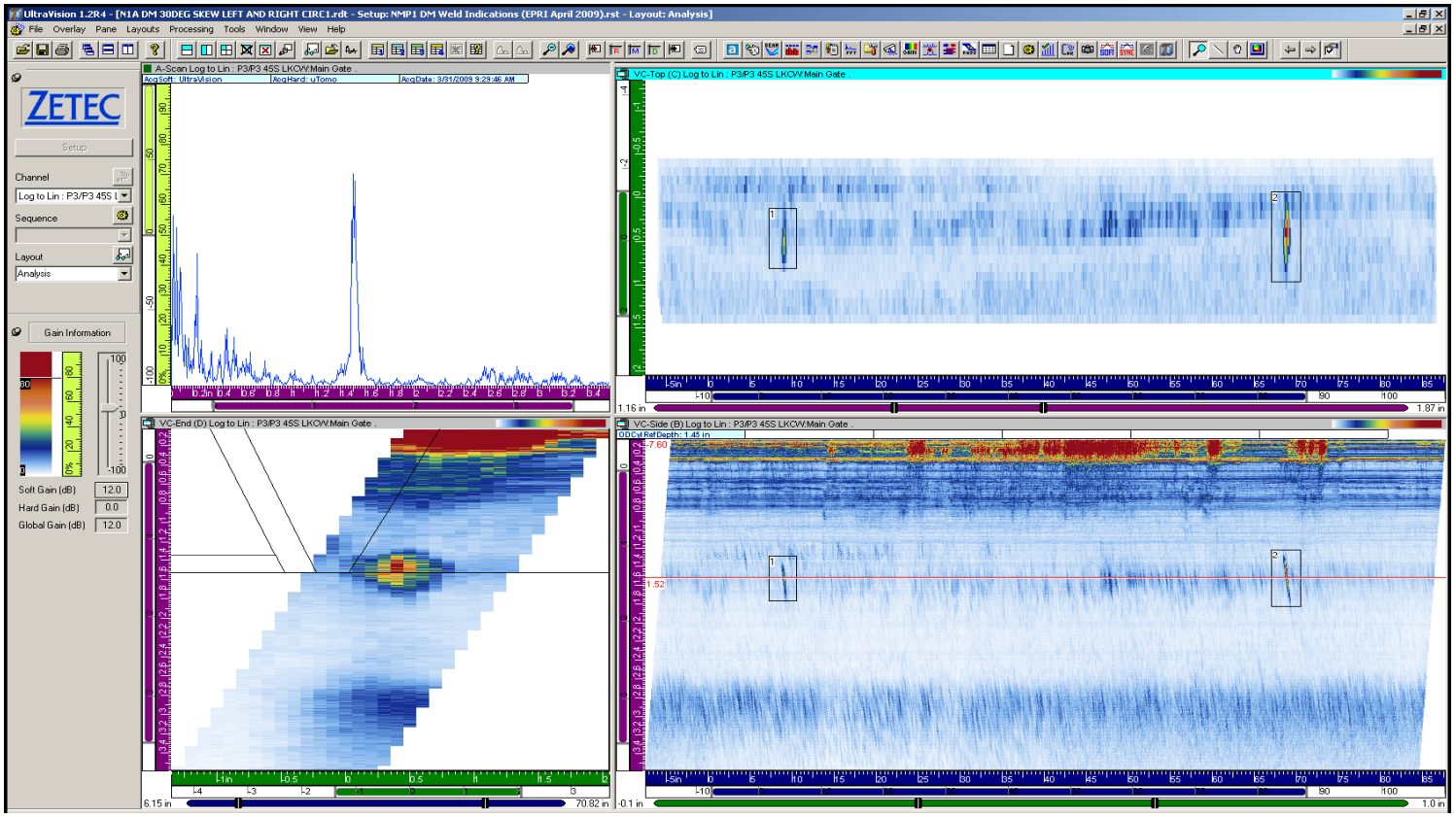
Nine Mile Unit 1

- 2009 Data N1A



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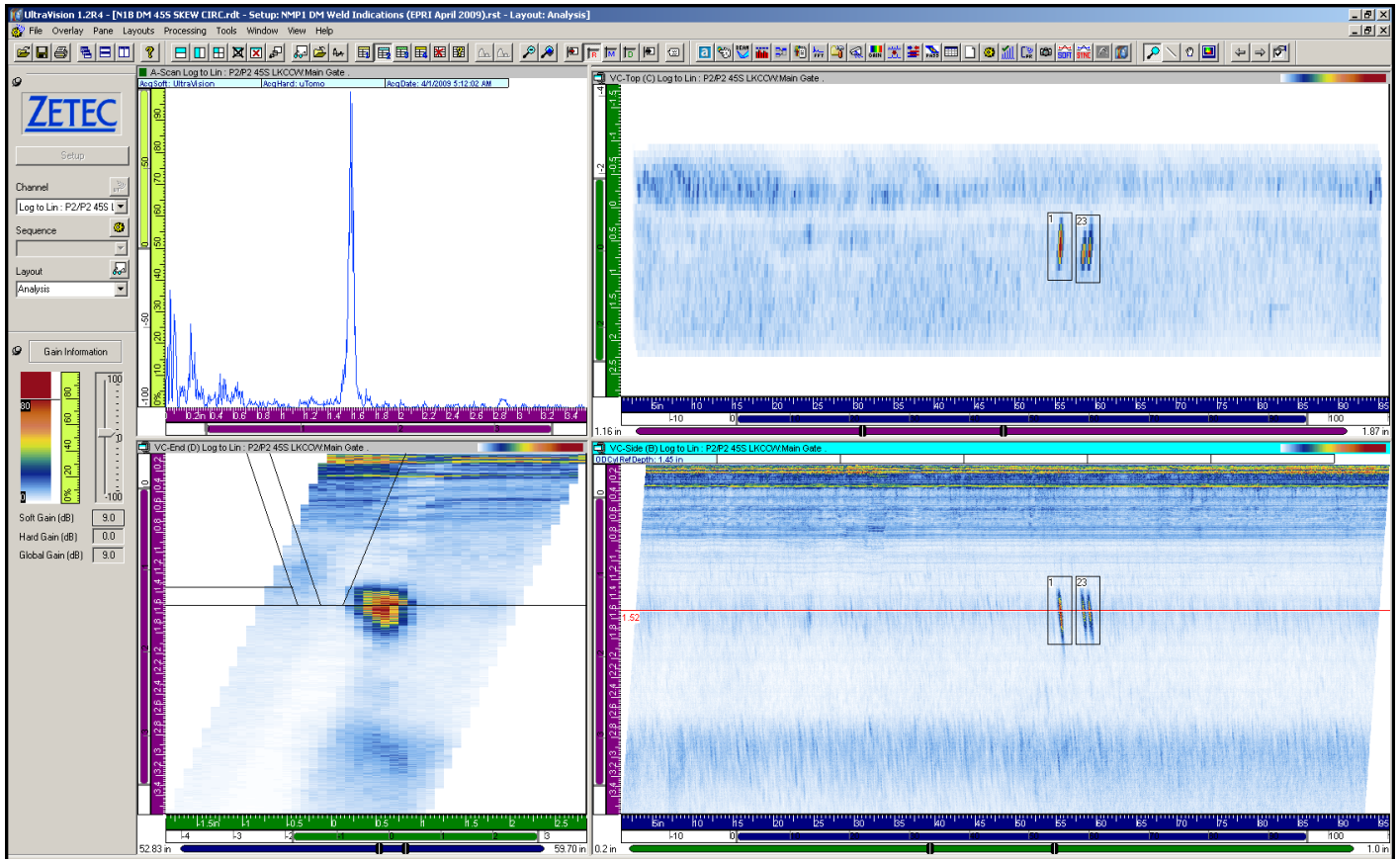
Nine Mile Unit 1

- 2009 Data N1B



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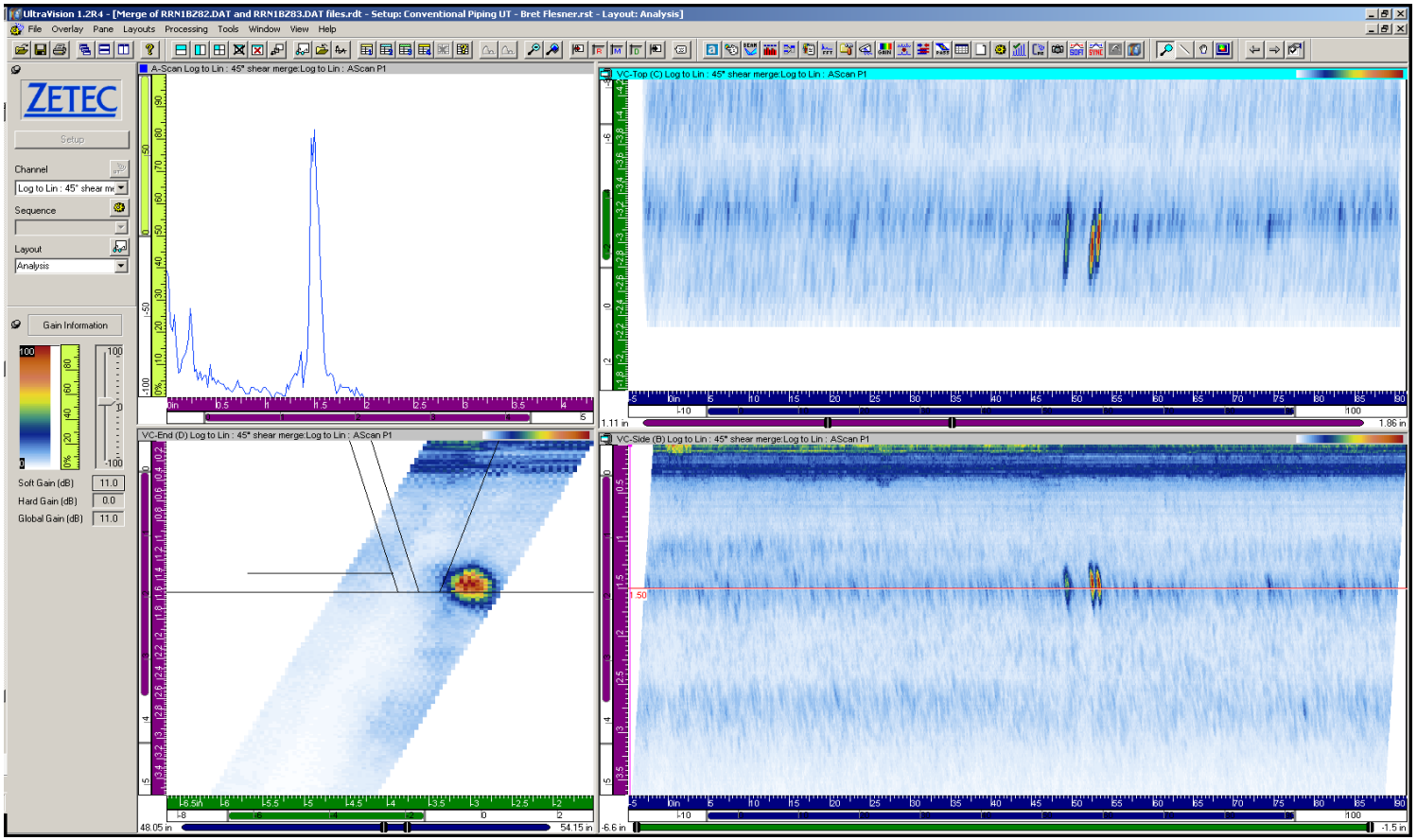
Nine Mile Unit 1

- Same indications in N1B 1999 Data



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Hatch Unit 2

- During scheduled ISI examinations one axial flaw was reported in a 12” diameter inlet nozzle dissimilar metal weld
  - Flaw was sized using a qualified automated procedure
    - ~ 0.5” long with a depth of 0.26”
  - Flaw was located in the 182 butter material
  - Flaw was evaluated to be acceptable for at least one more operating cycle

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Other Findings

- Several plant have been detecting embedded fabrication flaws that have required evaluation
- Many of the flaws had never been detected due to the surface condition of the components
- Plants have been evaluating these flaws in accordance with IWB-3500 and in some cases have had to perform IWB-3600 evaluations
- As plants continue with examinations performed with qualified techniques on improved examination surfaces it is believed more of these flaws will be detected and require evaluation

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