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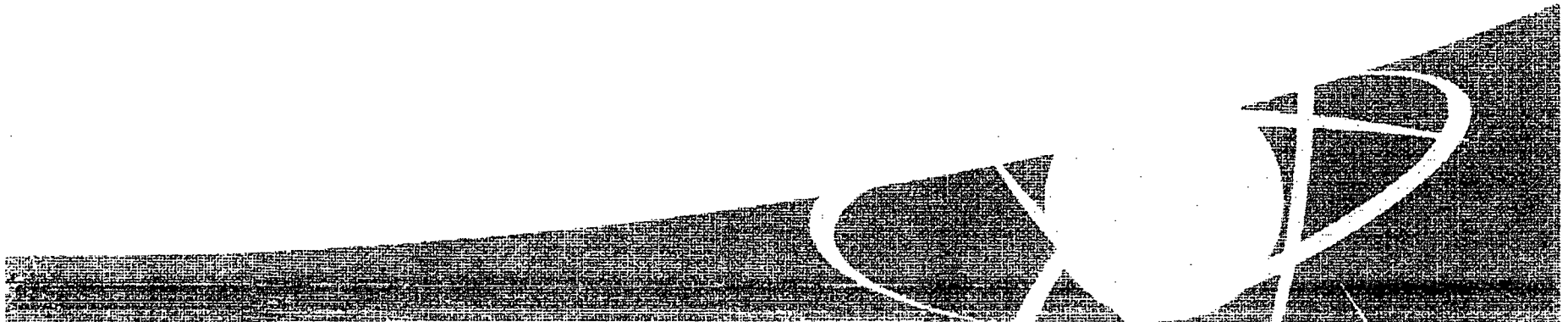
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Indications in Reactor Pressure Vessel Forgings NRR/DE Management Briefing

Robert Hardies, Senior Level Advisor
Carolyn Fairbanks, Senior Materials Engineer
Jeff Poehler, Senior Materials Engineer
NRR/DE
November 13, 2012

Purpose

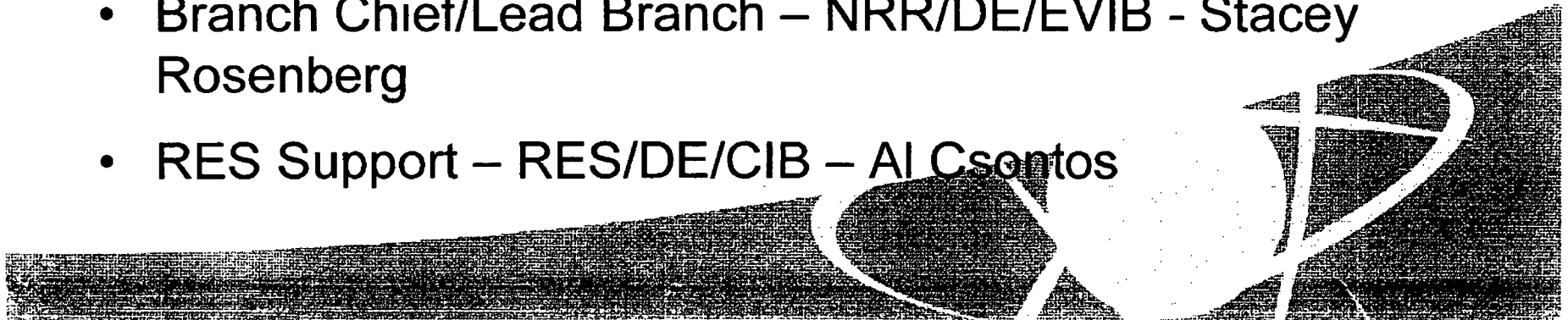
- Update NRR/DE management on NRC staff latest understanding and plans related to indications found in Doel 3 and Tihange 2 reactor pressure vessels



NRC Staff Roles



- Communications Plan – Carolyn Fairbanks
- Bilateral support to Belgians for 3 working groups:
 - Nondestructive Evaluation – Carol Nove, RES
 - Metallurgical/Root Cause Aspects – Jeff Poehler
 - Structural/Fracture Mechanics – Gary Stevens RES
 - Liason between 3 working groups- Bob Hardies
- Branch Chief/Lead Branch – NRR/DE/EVIB - Stacey Rosenberg
- RES Support – RES/DE/CIB – Al Csontos



Current Staff Understanding- NDE Issues

(b)(4),(b)(7)(D)

Current Staff

Understanding- NDE Issues



United States Nuclear Regulatory Commission

Protecting People and the Environment

(b)(4),(b)(7)(D)

Current Staff



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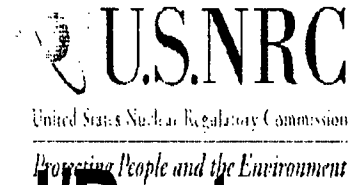
Protecting People and the Environment

Understanding- Structural Integrity

(b)(4),(b)(7)(D)

Current Staff

Understanding -Metallurgical/Root Cause



(b)(4),(b)(7)(D)

Current Staff



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Protecting People and the Environment

Understanding -Metallurgical/Root Cause

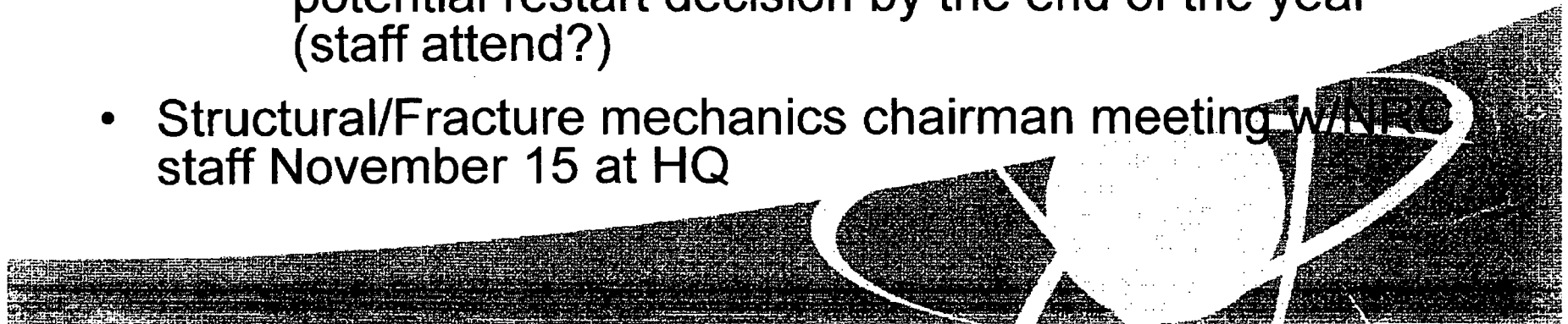
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(b)(4),(b)(7)(D)

Plans – Support for Belgians



- NRC participation requested by Belgian regulatory authorities:
 - Expert panel (USA, Spain, Sweden, Switzerland, Finland, France, Germany, The Netherlands) (Mark Kirk); two meetings planned
 - Support three Working Groups:
 - October 16 meeting , Brussels Belgium
 - Additional meeting before year end to discuss results of all testing and analysis to support potential restart decision by the end of the year (staff attend?)
- Structural/Fracture mechanics chairman meeting w/NRC staff November 15 at HQ



Plans Regarding US Nuclear Power Plants



- Industry engaged via NEI 03-08
- Would expect to review deterministic and/or probabilistic analyses prepared by industry
- Public meeting scheduled for January 8, 2013
 - Goal to get industry to take lead on evaluation US RPV integrity
- Reassessment of reactor vessel integrity/acceptance criteria/NDE inspections based on modern knowledge and technology
- Communications Plan and considering Information Notice
- Pending Doel 3/Tihange 2 results considering need for forged plants to review UT records and perform limited inspections

U.S. Plant RPV Forgings (backup)

- 31 plants have major shell segments (beltline) made from forgings
- Five forging manufacturers
 - Rotterdam, Bethlehem Steel, Ladish, JSW, Creusot
- Eight of these have Rotterdam forgings:
 - Catawba 1
 - McGuire 2
 - North Anna 1 & 2
 - Sequoyah 1 & 2
 - Watts Bar 1 & 2
- No data indicating flaking is limited to Rotterdam forgings.

