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Protecting People and the Environment

Status of Embrittlement Database Efforts

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Office of Nuclear Regulatory Research
Component Integrity Branch

RPV Integrity Public Meeting
July 26, 2011, Rockville, MD, USA

Database

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- Transfer of PR-EDB database to modern database format
  - Should be complete Summer 2011
- Addition of new data from U.S. surveillance reports post ~2000
  - Continuous progress
- U.S. Document library now at ~90% success
  - Obtaining documents
  - Legal permissions
- Data.gov deployment
  - Fall 2011
  - To include plant name list with links to reports with permissions

Database, Continued

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- Checking procedure
  - Procedure developed to check, relative to original source, each entry in relational database
  - Checking will begin Summer-Fall 2011
- Surveillance reports from outside of the U.S.

Provided	Willing	Not Now	No Response Yet
Korea	Belgium	France	UK
From PR-EDB: Brazil, Korea, Spain, Sweden, Switzerland	Germany	Japan	Switzerland
			Finland
			Mexico
			Spain

Database, Continued

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- Near Future (Now … Fall 2011 … & beyond)
  - User friendly web interface
  - Analysis protocols for the processing layers
    - Methods to fit CVE *vs*. temperature
    - Methods to condense data on regressor variables into single value (e.g., Cu, Ni, fluence, reactor temperature, etc.)
    - Other?

Database Needs

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- EPRI / U.S. Industry participation
  - Highly desired, remains undetermined at this date
  - Possible tasks:
    - Provide missing surveillance reports
    - Provide legal permission for reports
    - Provide RPV integrity site contacts
    - Checking and QA of database
    - Processing layer protocols
    - Streamlined surveillance report submittal process
  - NRC would like to establish process / timeframe by which commitment to participate can be secured
    - Future meeting frequency