

Regulatory Perspective on Corrosion of Alloy 22

Nuclear Waste Technical Review Board
Washington, D.C. Meeting
(May 18-19, 2004)

Presented by
Tim McCartin

Division of High Level Waste Repository Safety, NRC

NRC Approach to Regulatory Reviews

- Risk informed approach focuses on safety attributes of repository system
- Confirmatory and exploratory investigations in key areas with limited data
- Performance and safety assessments to assist understanding
- Consideration of all publicly available information

Application to Corrosion

- Near-Field Chemical Environment
(Roberto Pabalan)
- Factors Influencing Uniform and Localized Corrosion of Alloy 22
(Darrell Dunn)
- Sensitivity Analyses of Waste Package
(Tae Ahn)

Regulatory Review

- Review will focus on DOE's design and technical basis as described in its license application
- As the applicant, DOE has the responsibility to support and defend its claims for the performance of a potential repository at Yucca Mountain

Regulatory Review (cont.)

- NRC will use its experience and understanding to inform the review
- NRC continues to prepare for a potential license application
- NRC conclusions regarding performance of a potential repository at Yucca Mountain (e.g., corrosion of waste package) will be made based upon the licensing review