

**DAVIS-BESSE STATION**

**RADIATION PROTECTION**  
**INSPECTION**

**EXIT MEETING**



U.S. NUCLEAR REGULATORY COMMISSION

April 15, 2003

**NRC EXIT MEETING  
DAVIS-BESSE STATION**

**APRIL 15, 2003**

**PURPOSE OF MEETING**

Present Preliminary NRC Findings and Observations  
From Supplemental Inspection & Effectiveness  
Review of the Radiation Protection Program

# **AGENDA**

- I. Introduction and Opening Remarks
- II. Inspection Purpose and Scope
- III. Presentation of NRC Inspection Results
- IV. Licensee Presentation/Response
- V. NRC Closing Remarks
- VI. Questions From The Public
- VII. Adjourn Meeting

## **NRC REPRESENTATIVES**

Wayne Slawinski, Inspection Team Leader, RIII

John House, Senior Radiation Specialist, RIII

Jack Grobe, Chairman, MC 0350 Panel, RIII

Bill Ruland, Project Director, NRR

Tony Mendiola, Section Chief, NRR

Christine Lipa, Branch Chief, RIII

Scott Thomas, Senior Resident Inspector, D. Besse

## **PURPOSE AND SCOPE OF INSPECTION**

### **TWO-FOLD:**

1. Supplemental Inspection of Degraded Occupational Radiation Safety Cornerstone Resulting From Two WHITE Performance Issues
2. Independent Radiation Protection Program Effectiveness Review And Assessment of Licensee's Return To Service Plan

## **RADIATION PROTECTION PROGRAM PERFORMANCE HISTORY**

- Contract Workers Externally and Internally Contaminated While Installing Steam Generator Nozzle Dams in February 2002
- Contamination Attributed to Steam Generator Work at Davis-Besse Identified Off-Site on Clothing in April 2002, Upon Worker Arrivals at Other Nuclear Plants
- NRC Special Inspection in April 2002 Identifies Problems With Radioactive Material Control Due to Inadequate Personnel Surveys
- Licensee Analyses Identify Presence of Transuranic (Alpha Emitting) Radioactive Material in Plant's Isotopic Mix in August 2002
- NRC Special Inspection in September - October 2002 Identifies Problems In Radiological Planning And Execution of Nozzle Dam Work
- Inspection Report No. 50-346/02-16(DRS), Issued January 2003, Documents Two Preliminary WHITE Findings In RP Program

## **RADIATION PROTECTION PROGRAM PERFORMANCE HISTORY**

- Final Significance Determination For Two WHITE Findings And Notice Of Violation Issued in February 2003
- WHITE Findings, 0350 Panel Checklist, And Reactor Head Degradation Preliminary Red Finding Prompts Supplemental Inspection And RP Program Effectiveness Review

## **SUPPLEMENTAL INSPECTION**

### **Purpose and Scope:**

- Assess Adequacy of the Licensee's Root Cause Evaluation of Two WHITE Performance Issues
- Assure Root and Contributory Causes for Individual and Collective Issues Are Understood
- Assure Extent of Condition of Performance Issues and Implications to Other Licensee Programs/Processes are Understood
- Independently Assess Extent of Condition
- Assure Corrective Actions are Appropriate to Prevent Recurrence

April 15, 2003



## **SUPPLEMENTAL INSPECTION**

### Results:

- Root Cause Evaluation Used Industry Recognized Systematic Methodologies and Conducted at the Appropriate Depth
- Identified Root and Contributory Causes
  - Less Than Adequate Management Systems
  - Less Than Adequate Work Direction
  - Procedural, Communication and Training Program Deficiencies (Contributing Causes)
- Extent of Condition Analysis Adequate
  - Licensee Evaluations/Assessments Under Return to Service Plan in Areas Other Than RP Captured Generic Implications of Two WHITE Performance Issues
  - Other Plant Processes and Programs Had Performance Issues Similar to Those in RP
- Planned and Completed Corrective Actions Adequate to Prevent Recurrence

# **RP PROGRAM EFFECTIVENESS REVIEW**

## **Purpose:**

- Independently Evaluate Selected Areas of RP Program to Assess its Effectiveness
- Verify Adequacy of the Licensee's RP Program Assessment (Phase Two Review) and Return to Service Implementing Action Plan

## **Scope:**

- Plant Walkdowns and Radiological Posting/Boundary Observations
- Radioactive Material Control and Unconditional Release Program
- Qualifications and Training of RP Staff & Radworkers
- Radiological Work Planning and Work Execution
- Radiological Environmental Monitoring Program
- Phase Two RP Program Assessment and Recovery Plan

# **RP PROGRAM EFFECTIVENESS REVIEW**

## **Results:**

- GREEN Finding and Non-Cited Violation for Locked High Radiation Area Access Control Problem (NRC Identified)
- Licensee Identified Violation of Very Low Safety Significance (GREEN) for Inadequate Control of Contaminated Tool
- Procedures Governing Unconditional Release and Radiological Work Planning Processes Lacked Clarity and Consistency
- Radworker Training Deficiency Relative to High Radiation Area “Cocooning” Practices
- Adequacy of Industry Generic Communication (GC) Reviews Mixed, Leading to Missed Opportunities
- Phase Two Program Review Rigorous and Implementing Action Plan Progress Adequate

## OVERALL CONCLUSIONS

- NRC 0350 Panel Restart Checklist Includes Radiation Protection Program Improvements As Necessary Before Restart. Panel to Determine Restart Status of RP Checklist Item Within 30 Days.
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- Licensee's Root Cause Evaluation Adequate. Root and Contributory Causes of Two WHITE Performance Issues Identified.
- Extent of Condition Evaluation Addressed Generic Implications of Performance Problems Given Other Licensee Evaluations Outside Radiation Protection
- Corrective Actions Adequate to Address Root and Contributing Causes so as to Prevent Recurrence
- No New Findings of Significance Identified During Inspection. Progress Made in Improving Radiation Protection Program Satisfactory.



## **NRC CLOSING REMARKS**

### Inspection Report Issuance:

- Inspection Report No. 50-346/03-08(DRS) to be Issued Within 30 Days

### Followup Inspection Activities:

- Monitor Effectiveness of Licensee's Corrective Actions Through Baseline Inspection Program
- Continue Baseline Radiation Specialist Inspection Program Throughout Restart Process and Post Restart
  - May 2003 Inspection of Transportation and Radioactive Waste Processing Programs
  - July 2003 Inspection of ALARA Program and Portions of Instrumentation Program
  - October 2003 Inspection of Access Control, Portions of Instrumentation Program and Performance Indicator Verification