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# **PLANS FOR ADDRESSING THE DAVIS-BESSE LESSONS LEARNED TASK FORCE RECOMMENDATIONS STRESS CORROSION CRACKING**

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# **STRESS CORROSION CRACKING ACTION PLAN**

**Part I    RPV Head Inspection  
Requirements**

**Part II    Boric Acid Corrosion Control  
Requirements**

**Part III    Inspection Program  
Improvements**

# **STRESS CORROSION CRACKING ACTION PLAN**

## **Part I - RPV Head Inspection Requirements**

- 1. Collect world-wide information**
- 2. Evaluate existing SCC models for use in susceptibility index**
- 3. Evaluate results of inspections per Bulletins and Orders**
- 4. Review and evaluate MRP and ASME efforts**
- 5. Endorse ASME Code changes or develop alternative inspection requirements**

# **STRESS CORROSION CRACKING ACTION PLAN**

## **Part II - Boric Acid Corrosion Control Requirements**

- 1. Collect world-wide information**
- 2. Evaluate Bulletin 2002-01 responses**
- 3. Evaluate the need for additional regulatory actions**
- 4. Review and evaluate ASME Code revised requirements**

# **STRESS CORROSION CRACKING ACTION PLAN**

## **Part III - Inspection Program Improvements**

- 1. Guidance for periodic review of licensee ISI activities by NRC**
- 2. Guidance for timely, periodic inspections of plant BACC programs**
- 3. Guidance for assessing adequacy of plant BACC programs**

## LLTF Report Recommendations Included in SCC Action Plan

### High Priority

NUMBER	RECOMMENDATION
3.1.1(1)	The NRC should assemble foreign and domestic information concerning Alloy 600 (and other nickel based alloys) nozzle cracking and boric acid corrosion from technical studies, previous related generic communications, industry guidance, and operational events. Following an analysis of nickel based alloy nozzle susceptibility to stress corrosion cracking (SCC), including other susceptible components, and boric acid corrosion of carbon steel, the NRC should propose a course of action and an implementation schedule to address the results.
3.2.2(1)	The NRC should inspect the adequacy of PWR plant boric acid corrosion control programs, including their implementation effectiveness, to determine their acceptability for the identification of boric acid leakage, and their acceptability to ensure that adequate evaluations are performed for identified boric acid leaks.
3.3.2(1)	The NRC should develop inspection guidance for the periodic inspection of PWR plant boric acid corrosion control programs.
3.3.4(3)	The NRC should strengthen its inspection guidance or revise existing guidance, such as IP 71111.08, to ensure that VHP nozzles and the RPV head area are periodically reviewed by the NRC during licensee ISI activities. Such NRC inspections could be accomplished by direct observation, remote video observation, or by the review of videotapes. General guidance pertaining to boric acid corrosion observations should be included in IP 7111.08
3.3.4(8)	The NRC should encourage ASME Code requirement changes for bare metal inspections of nickel based alloy nozzles for which the code does not require the removal of insulation for inspections. The NRC should also encourage ASME Code requirement changes for the conduct of non-visual NDE inspections of VHP nozzles. Alternatively, the NRC should revise 10 CFR 50.55a to address these areas.

### Medium Priority

NUMBER	RECOMMENDATION
3.1.4(1)	The NRC should determine if it is appropriate to continue using the existing SCC models as predictors of VHP nozzle PWSCC susceptibility given the apparent large uncertainties associated with the models. The NRC should determine whether additional analysis and testing are needed to reduce uncertainties in these models relative to their continued application in regulatory decision making.

### Low Priority

NUMBER	RECOMMENDATION
3.3.7(6)	Determine whether ISI summary reports should be submitted to the NRC, and revise the ASME submission requirement and staff guidance regarding disposition of the reports, as appropriate.