

From: Alan Rubin, ^{RES}
To: Jack Goldberg, ^{OGC} Jimi Yerokun, ^{RT} Joseph Donoghue, L... ^{NRF}
Date: Wed, Aug 2, 2000 3:52 PM
Subject: Re: Restart Issues

Items 1 and 8 also supplement item 9 to address the corrective actions related to the operability of the current SGs for the short term. Item 13 is important, but it seems to be a long term issue after the current SGs are replaced.

Alan

>>> Timothy Frye 08/02 3:37 PM >>>

I think item #9 of the restart review, which does discuss appropriate corrective actions to provide confidence in structural integrity, does address the short term concerns. Licensee corrective actions for the long term concerns (i.e., adequacy of vendor oversight) will be addressed by the region as they do the additional inspections dictated by the assessment process in response to the red finding.

>>> Joseph Donoghue 08/02 2:19 PM >>>

Item 13 is at the crux of the misgivings I had this morning about restart vs. oversight process.

I note that #13 is NOT listed as an issue for the safety evaluation. However, it seems that unless the SE addresses the licensee's corrective actions pertinent to the short-term operability of the current SGs, then we really can not have sufficient confidence to support restart.

Each of the three areas discussed in the proposed enforcement language relates to corrective actions that need to be taken to ensure operability of the current SGs. Many of the steps may have already been taken, e.g. improved ECT techniques. If so, great, if not, then we have to decide if there is a safety issue.

Regarding item # 15, I am not aware that anyone is working on or thinking about a press release at this point. If someone knows that there is one in draft, please let me know (it's a risk insights thing with me).

>>> Rick Ennis 08/02 10:04 AM >>>

Attached is the latest Task Group list of restart issues that we will consider when we get EMCB's SE for review. The draft SE is expected by the end of this week. As we discussed this morning, please review the list to see if there are any other issues we should consider (e.g., implications of SE approving restart with a potential Red finding).

Thanks,

Rick

X/13

**IP2 Lessons Learned Task Group
Restart Review
Rev. 0, July 14, 2000**

Safety Evaluation for Restart

1. How good/reliable was the licensee's inspection this year? Is the data quality (e.g., signal-to-noise ratio from copper deposits, sludge piles, etc.) in the year 2000 inspection good enough to have confidence that flaws in the tubes (i.e., greater than 40% or 70% through wall) have been found?
2. Will issues relating to the probability of detection and effective full power days be explicitly addressed in the SE?
3. Continuous stressing as a result of additional tube bending increases the susceptibility to crack growth. How did Con Ed evaluate the contribution to crack growth resulting from deformation of the SG tubes (i.e., bending)?
4. Use of the high frequency probe enhances the detection of inside diameter degradation such as PWSCC, and gives us more confidence in the 2000 inspection. Are we concerned about the potential for ODSCC in the U-bends?
5. What is the technical basis for adequacy of the ODSCC inspection in the sludge pile region, since the high frequency probe would not have provided enhancement for detecting ODSCC.
6. Is there too much focus by Con Ed and/or NRC staff on inner row U-bend tube failures such that other failure mechanisms/locations are not adequately considered (e.g., ODSCC in the free span region above top of the tube sheet (sludge pile))? What measures does the licensee use to consider other failure mechanisms or locations and what criteria are used to evaluate other mechanisms/locations if encountered?
7. We now understand that, in all likelihood, the licensee is not capable of detecting cracks in the row 3 U-bends at 40% throughwall with 80% probability of detection with 95% confidence. What alternative to this criteria is acceptable to the staff?
8. Is sufficient attention being paid to PWSCC in the U-bend region of the low row SG tubes (i.e., row 3 and higher, since all the row 2 tubes have been plugged)?
9. Have appropriate inspections/condition monitoring/operational assessment/corrective actions been taken to have necessary confidence that the tubes will meet structural and leakage integrity (considering any potential degradation mechanism in any region of the tubes) until the current SGs are replaced?
10. Are the issues contained in the research review findings adequately addressed in the SE? (e.g., inadequate operational assessment - no growth rates or NDE uncertainty; significance of new forms of degradation - ODSCC at sludge pile and PWSCC in U-bends; whether dubious licensee arguments were considered in SE findings).

11. Does the SE consider one of the potential lessons learned, which is "SERs prepared by NRC should clearly state the bases for the conclusions reached and clearly identify licensee information not relied upon as part of the bases."

Regional Issues/Others

12. Will issues on inadequate root cause and corrective actions with respect to SG integrity addressed in the SE?
13. If there are differences between the licensee's Root Cause (s) and the NRC's Special Inspection Team's Root Cause(s) (there are), then can we have reasonable confidence that IP2's corrective actions will prevent recurrence?
14. In a practical sense, how will the EPRI guidelines be used for their next cycle at IP2? For example, how are the EPRI guidelines for primary to secondary leakage (both absolute values and rate-of-change values) being incorporated into their performance during their next cycle? [In the transmittal letter from NEI to NRC for NEI 97-06, NEI promises "Each licensee will evaluate its existing steam generator program and, where necessary, revise and strengthen program attributes to meet the intent of the guidance provided in NEI 97-06, Steam Generator Program Guidelines, no later than the first refueling outage starting after January 1, 1999." It is our understanding that the EPRI guidelines would become the basis for the licensee procedures.]
15. Has the NRC communicated to the public and other stakeholders, in plain English, the basis for the restart decision, including the risk to the public from the operation of IP2 for a limited period of time with the current SGs?