

Linear Indication In Unit 2 South Spent Fuel Pool Wall

Challenge Meeting 9/12/05

References: CR-IP2-2005-03557
White Paper/Action Plan

Challenge questions (ref: Leadership Cue Card)

1. **Have we checked OE?** Yes. Reviewed reports of spent fuel pool liner leak at Salem NPP, particularly focusing on misdiagnosis and masking of leakage. Reviewed reports of IPEC Unit 2 SFP liner leak at 89-foot level in northeast area of pool that was detected and repaired in 1992. CAA and Licensing are searching for additional information.
2. **Should this be evaluated for an ODMI?** We have evaluated this for an ODMI (EN-OP-111) and upon discussion with the VP of Engineering we are not issuing an ODMI at this point. The dampness observed is extremely small, and draft calculations indicate there is no significant rebar corrosion. The SFP is structurally sound and operable.
3. **Do we need vendor/fleet assistance?** Paul Brock, a structural Engineering expert with significant spent fuel pool structure experience including analysis of Unit 1 leak will arrive at IPEC today. He has been part of the discussions and has drafted an initial analysis.
4. **Has an independent assessment/review been done?** Not yet, however we have been attacking this issue with cross-functional team from Engineering, Health Physics, Licensing and Chemistry.
5. **Do we clearly understand the problem?** We understand the problem but have not identified the cause of the moisture in the crack on the west side of the south wall.
6. **Are we proceeding in the face of uncertainty?** No.

Ex. 4

- after a 50.59 review and notifying the Shift Manager. A detailed Action Plan is being followed.
7. **What are we doing to mitigate risk?** We have implemented radiological controls in the area and ceased physical work in the area. Risk of a significant event (structural failure or damage/increased leakage) is extremely low.
 8. **Have we implemented the Troubleshooting Standard?** We have not formally implemented the Maintenance Troubleshooting Standard (EN-MA-125) however the Action Plan has been compared with the procedure. The Dry Cask Storage Project Manager is entering the Action Plan into the procedure format today.
 9. **What is the worst that could happen?** An active pool liner leak, with significant structural failure or damage, or a significant increase in leakage (if this is a pool liner leak). These scenarios are considered extremely unlikely due to the design of the pool wall and operating

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experience. Next is extensive contamination of soil external to the spent fuel pool (such as that found at Salem), particularly outside (contamination already was found in the soil in the FSB loading bay). We have performed (in 2003) deep core bores in the FSB access alleyway and found no indication of significant contamination. The contamination found in the loading bay soil is very low level Cs-134, Cs-137 and Co-60. We expect to receive today or tomorrow the results of soil testing for Tritium performed by an off-site laboratory. We are making a second attempt to gather enough of the moisture as liquid to allow testing of it for Tritium.

10. What barriers are in place to prevent the worst that could happen?

Other than the very robust design of the pool structure, along with the radiochemistry monitoring ongoing, no barriers are in place to prevent an active spent fuel pool leak since we do not know (if it exists) where it is located, and Unit 2 SFP does not have a tell-tale drain system.