NRR/DEX/ESEB's Comments on Comanche Peak LRA Supplement 3 – Enhancements to the Structures Monitoring program by George Wang

Element 3: Parameters Monitored or Inspected.

- Require periodic inspection and cleaning, including blockage removal, of the Fuel Transfer Canal and Refueling Cavity tell-tale drains.

  Question 1: Explain why the SFP is not included.

- Sample and analyze discharge from the leak chase system for, at a minimum, flow (drip) rate and the following chemistry parameters: pH, boron concentration, and iron content.

  Question 2: Clarify how often will the sample be collected. It should be same as inspection frequency per EPRI 2016 technical report. In addition, clarify whether the sample will be taken for analyses from the boric acid white deposit on concrete surface, include the following chemistry parameters: pH, boron concentration, and iron content if leakage through concrete structure is identified from the SFPs, Fuel Transfer Canals, and Refueling Cavities.

  Question 3: Clarify whether an enhancement is needed to perform periodic video probe inspection of tell-tales to check for development of blockages per EPRI 2016 technical report.

Element 4: Detection of Aging Effects

- Inspect for evidence of leakage from the SFP or Fuel Transfer Canal, such as the formation of deposits or wet areas on SFP or Fuel Transfer Canal structures.

  Question 4: Explain why the Refueling Cavities are not included.

- Assess the frequency of inspection and cleaning of the tell-tale drains to confirm the absence of any blockages.

  Question 5: What is the inspection frequency of the tell-tale drains? The cleaning depends on inspection results.

  Question 6: Clarify whether an enhancement is needed per EPRI 2016 technical report to obtain samples from [describe system configuration that enables sampling—for example, from each telltale] at least every [inspection frequency]. Data for leak rates will be obtained by [describe methodology, for example, collecting drips from a telltale for a specific time]. Chemistry data will be obtained by [describe analysis methods; consider expanding to multiple sentences if many parameters are obtained]

Element 6: Acceptance Criteria

- Develop appropriate acceptance criteria for the parameters that are monitored for the SFP leak detection system, including, at a minimum, leak chase system discharge flow (drip) rate, pH, boron concentration, and iron content. Any indications of new or increased leakage from the SFP (formation of white crystal deposits or wet areas) will be documented and evaluated via the CAP.

Question 7: What are acceptance criteria?

Element 7: Corrective Actions

- Clean the Fuel Transfer Canal and Refueling Cavity tell-tale drains using a rod or brush or by high-pressure cleaning (hydrolasing) if inspection results indicate that cleaning is necessary.

  Question 8: (a). Explain why the SFP is not included; and (b) If the blockage is found inside the leak chase channel of the SFP, the Fuel Transfer Canal and Refueling Cavity, cleaning tell-tale drains only is not enough, evaluate the enhancement and revise accordingly.