



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

	Action	Owner	Due Date	Deliverable
0	Control of information // Teamwork // Internally challenge each other.	ALL	Daily	
0	Be clear on the deliverable for each item.	ALL	Daily	
0	No commitments made to NRC without Exec approval. *	ALL	Daily	
0	Inform Execs, NRC, and stakeholders (Shapiro) of significant changes in events. Shapiro; variables and age related contribution.	DL	Daily	
0	Final determination; is leak active or not?	ALL	Daily	
0	Additional trouble shooting plans required?	DL	Daily	
0	Daily sample results	RL	Daily	
0	NRC contact update. Web page reviews.	TRJ	Daily	
0	Daily debrief to Execs	DL	Daily	
0	ODMI impact?	GS	Daily	
1	Copy of NRC inspection team charter	TRJ	Complete	
3	Discuss with J Steets the use of Gulianni Assoc.	DL	10/20/05	Decision
4	Water volume calculation – observed leakage rate	RL	Complete	1 to 2 liters per day.
5	Recent timeline	GS	Complete	Provided in GS summary report on R drive.
6	Timeline back to original design basis and construction. Focus on decision for no pool drain system. Talk to Charlie Jackson. **	SP	10/14/05	Write up explaining results, with reference documents attached (e.g. dwgs, FSAR page, etc.)
7	Original design basis and licensing bases searches	TRJ	10/10/05	Write up explaining results.
8	Lessons learned for sensitivity to informing stakeholders	DL	10/22/05	Summary write up.

7/14



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

9	Recovery plan for dry cask storage project. Get plan for loading bay floor back to within 3 ft. of final surface before 2R17. *	GS	10/14/05	Revised schedule, action plan, to get there, cost impact, PIF.
10	Identify cost of SFP leak that has been charged to DCS project and transfer costs to appropriate account. Meet with John Butts to receive new account number.	GS	10/12/05	New account number, list of charges to be moved from DCS, estimate for future expenses.
10.1	Estimate for all activities to resolve U2 SFP leak and tritium finding. Table to show costs spent prior to 10/7 (and captured on other cost codes), and going forward estimates after 10/7.	DL	10/14/05	Excel spread sheet.
10.2	Issue requisition to GZA for all mitigation and monitoring scope.	SP	10/11/05	Requisition
11	Extent of condition for cracks (all 4 walls). Include all write ups into single document.	SP	10/26/05	Independently reviewed and approved technical report.
11.1	Assessment of all visible walls	SP	10/12/05	Write up explaining results.
11.2	Assemble OE on other facilities with pool leaks, obtain technical information and incorporate into technical assessment.	SP	10/19/05	Write up explaining results.
11.3	Evaluation; determine what is necessary to make the rest of the wall surface areas accessible for visual inspection. Provide justification to expose walls or not to expose walls.	SP	10/19/05	Write up explaining results.
13	Perform KT analysis. Determination of cause **	DL	10/12/05	Paul Bode to facilitate. He will provide KT report.
14	OE; Who, other than IP2, does not have a pool drain (telltale) system.	GH	10/12/05	Write up explaining results.
15	OE; contact other plants with leaking pools, gain insights. Contact Salem, Vogtle.	GH	10/14/05	Write up explaining results.
16	Estimate for NRC inspection costs. Provide to John Butts.	TRJ	Complete	41k.



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

17	Develop file on IP2 pool leak history (not just 1992). **	TRJ	10/14/05	Write up explaining results, with reference documents attached (e.g. dwgs, FSAR page, etc.)
18	Identify pool liner mods/repairs during the operation of IP2? **	TRJ	10/14/05	Write up explaining results, with reference documents attached (e.g. dwgs, FSAR page, etc.)
19	Structural adequacy calculation (ABS consulting) **	JS	Complete	Calculation
20	Radiological environmental impact. Include all write up materials. Identify open items to be tracked.**	RL	10/25/05	Independently reviewed and approved technical report.
20.1	Interim calculation; dose to offsite individuals using ODCM methodology.	RL	10/07/05	Calculation
20.2	Evaluation of contaminated soil in Spent Fuel Pool truck bay.	RL	10/12/05	Write up explaining results.
20.3	Evaluate employing tracer test. Issue requisition or justification to not perform.	RL	10/12/05	Write up explaining results, with requisition if required.
20.4	Results from tracer test, if employed	RL		Incorporate results into 20.
20.5	Technical report, defining likely release pathways to Hudson River or to ground water. Vendor - GZA	SP	20.4 + 7	Independently reviewed and approved technical report.
20.6	Entergy review and approval of 20.5	SP	20.5 + 3	Approved and entered into Merlin.
20.7	Provide determination of pool leak rate. Identify open items to be tracked in item 20.	SP	10/14/05	Calculation.
20.8	Determine potential release pathways and water radioactivity concentration for use in dose calcs.	RL	10/18/05	Calculation
20.9	Perform calcs. for exposure to the public and/or comparison to EPA drinking water standards if there is no defined pathway.	RL	10/25/05	Calculation
21	Remediation activities	RL	12/15/05	Write up explaining results.
21.1	Develop FSB sampling and excavation material control plan	RL	Complete	Written and approved plan is issued.



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

21.2	Gamma monitoring of excavated material	RL	11/15/05	Write up explaining results.
21.3	Limit weather exposure to contaminated soil pile	GH	10/14/05	Tarps
21.4	Remediate/dispose of contaminated soil	GH	11/15/05	
21.5	Update 10 CFR 50.75 (g) file for decommissioning records to include SFP truck bay and soil remediation area.	RL	12/15/05	Records update
21.6	Define other remediation requirements.	RL	10/20/05	Write up explaining results.
23	Issue Long Term Monitoring Plan	RL		Independently reviewed and approved technical report.
→ 23.1	Develop recommendations for long term well sampling. (Tie to 20.5). Vendor - GZA	SP		Write up explaining results.
23.2	Perform sampling as defined in 23.1	RL		Procedural controls
23.3	Issue procedure for capturing and testing leakage water at the south wall.	RL		Procedure.
23.4	Update environmental sampling program and ODCM to reflect new wells, sampling, etc.	RL	12/01/05	Revised procedures.
→ 23.5	Design change for capture well in FSB loading bay; Enercon estimate for modification.	SP	Complete	Written proposal.
23.6	Design change for capture well in FSB loading bay; Issue requisition	SP	10/12/05	Requisition
23.7	Design change for capture well in FSB loading bay; Design change provided to Entergy for review.	SP		Enercon approved design change.
23.8	Design change for capture well in FSB loading bay; approved by Entergy and in Merlin.	SP		Approved design change.
24	Install temporary "gutters" to capture all leakage	HS	Complete	
↘ 25	Complete leak rate test on Spent Fuel Pool.	TO	25.5 + 7	Independently reviewed and approved technical report.
25.1	Collect U1 historical information on similar work	TO	10/07/05	Write up explaining results.
25.2	OE and potential vendor contacts. Develop short list of viable vendors and summarize OE.	TO	10/13/05	Write up explaining results.



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

25.3	Review potential benefits and disadvantages with Sr. Mgt. Provide recommendation for decision making	TO	10/13/05	Write up explaining results.
25.4	Issue requisition	TO	10/16/05	Requisition
25.5	Perform test	TO		Test Report
27	Inspection report for interior liner and the 1992 repair area. *	MT	11/10/05	Inspection report.
27.1	Underwater Construction walkdown.	HS	Complete	
27.2	Underwater Construction proposal received.	HS	Complete	Vendor proposal
27.3	Spent Fuel Pool surveys complete.	RL	10/13/05	Write up explaining results
27.4	Entergy decision on best inspection option. Prepare recommendation for Sr. Mgt. review.	MT	10/13/05	Write up explaining results
27.5	Issue requisition to perform inspection	MT	10/13/05	Requisition
27.6	Develop ALARA plans and RWPs	RL	10/20/05	ALARA plans and RWPs
27.7	Inspection complete. Vendor needs 2 weeks to mobilize, 1 week to inspect.	MT	11/03/05	Inspection Report.
27.8	Define repair plan, if necessary		11/10/05	Write up explaining results.
28	Boron regression analysis complete.	DS	10/24/05	Calculation
28.1	Complete inputs for analysis.	DS	10/13/05	
28.2	Prepare boron regression calculation	DS	10/20/05	
28.2	Review and approve boron regression calculation	SP	10/24/05	
30	Determine if a CR is needed for bedrock as-built of IP1 mitigation strategy.	GS	10/14/05	CR, if necessary.
31	Brainstorm idea for IP2 drain, tapping into the pool liner / concrete gap.	DL	Complete	Deemed not feasible, too risky.
32	Fleet call on radiological data and results	RL	Complete	Will continue this practice as new information unfolds.
34	East wall sample data analysis (old leak from 1992 – any new material present?)	RL	Complete	No new residue. Results will be included in item 20 report.
35	Water migration analysis (ABS consulting)	JS	10/11/05	Calculation



Indian Point Energy Center

Spent Fuel Pool Action Plan

Issue Date: 10/11/2005

36	West wall in PAB; dry sample analysis, and cover cracks to evaluate if any moisture is present.	RL	10/19/05	Write up explaining results.
37	West wall in PAB; prep and clean wall for item 36.	HS	10/12/05	Work order
38	Illustration for plume within SFP truck bay	RL	10/11/05	Sketch
39	OE from Salem; check the U3 SFP drain and confirm no blockage.	GH	10/21/05	Complete and signed off work order #
40	Find 1992 root cause and data (SAO-132)	GH/RL	10/12/05	Write up explaining results.
41	Confirm structural analysis does not affect security evaluations	JS	10/14/05	Write up explaining results.
42	Mitigation; Results from well samples from existing and new wells @ IPEC, with mitigation plans. Tie with item 23.	GS	11/15/05	Independently reviewed and approved technical report.
42.1	Opinion paper on use of current mitigation strategy for IP1 for resolution of IP2. Suggestions for long term mitigation, hydrology opinion (GZA).	GZA	Complete	
42.1	Sample water from all available wells on U2 and U3. Resample any positive or questionable findings.	GS	10/12/05	Summary write up.
42.2	Based on results from 42.1, plan additional wells for sampling	GS	10/12/05	Contract with well co.
42.3	Complete drill preps, including underground service checks.	GS	10/21/05	Work Orders
→ 42.3	Drill new wells	GS	10/25/05	
42.4	Sample results from new wells	GS	10/27/05	Incorporate into 42.1 summary write up.
42.5	Determine mitigation requirements for any findings.	GS	11/08/05	Write up explaining results.
42.6	Final definition of leak plume (beyond spent fuel building).	RL	11/15/05	Sketch and write up with results.
43	Westinghouse has submitted the U2 SFP issue for potential funding under their innovation program. Is it approved?	DL	10/14/05	

TOTAL P.07