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100K PROJECT MANAGERS MEETING MINUTES
September ~~15~~, 2011 8th

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Meeting Minutes Transmittal/Approval
100K Project Managers Meeting
September ~~15~~ 8th, 2011

APPROVAL: _____ Date: Sept 8, 2011
Tom Teynor, 100K Project Manager, DOE RL

APPROVAL: _____ Date: 9-8-2011
~~Rod Lobos, 100K Project Manager~~, EPA

HFFACO Action Plan Section 4.1 states that agreements and commitments resulting from the Project Managers meetings will be prepared and signed by all parties. Approval of these minutes documents approval of agreements and commitments documented in Attachments 2 and 3 to these minutes. Approvals do not apply to any other attachments. Any other attachments are provided for information purposes.

Minutes of the 100K Project Managers meeting of August 18, 2011 are attached. Minutes are comprised of the following.

Attachment 1	Attendance Record
Attachment 2	Milestone Status Report with Agreements, Commitments and Actions Identified
Attachment 3	100K Area PMM Response Action Agreements
Attachment 4	183.4-KW Clearwell Floor/Wall Cleanup Level Summary
Attachment 5	183.4-KW Clearwell Underlying Soil Cleanup Level Summary
Attachment 6	183.4-KE Clearwell Floor/Wall Cleanup Level Summary
Attachment 7	183.4-KE Clearwell Underlying Soil Cleanup Level Summary

Attachment 1
CHPRC-0900289 R24

100K Project Managers Meeting
September ~~15~~ 8th, 2011

Please print clearly and use black ink

Printed Name	Organization	Telephone
Steve Balone	RL - KBC	509 376-0236
Tom Teynor	RL	509-376-6363
Rod Lobos	EPA	509-376-3749
Kurt Kohler	CHPRC	509-376-0566
Bo Wier	CHPRC	509-392-9129
David Watson	CHPRC	509-373-3250
R Havener	CHPRC	509-376-0981
Roger Quintero	DOE-RL	373-0421
Mike Davis	CHPRC	372-9743

ATTACHMENT 2
100K AREA PROJECT MANAGERS MEETING MILESTONE STATUS

September 8, 2011

M-016-170 Complete KOP material pre-treatment.
Due 9/30/2011, DOE Lead Roger Quintero

- Pre-treatment of KOP material is complete.
- Milestone completion letter will be transmitted to EPA by September 30, 2011

Schedule Status: On schedule

Agreements, Commitments and Actions:

M-016-171 Complete K Basin sludge treatment and packaging technology evaluation report and submit a schedule including proposed new interim milestones for bench scale or identified testing in order to meet M-016-173
Due 03/31/2012, DOE Lead Roger Quintero

- Treatment and Packaging of EC sludge (STP Phase 2 Technology Evaluation and Alternatives Analysis)
- The Technology Alternatives Evaluation Report was prepared and transmitted to DOE-RL for review. Review is in progress.
- A workshop was conducted with representatives of DOE-RL, DOE Carlsbad, WIPP, and CHPRC to discuss key design assumptions and requirements for the future sludge treatment and packaging facility. The parties agreed that KE sludge (which comprises 18 m^3 of 27 m^3 total sludge) can be shipped to WIPP without treatment for uranium metal oxidation. The key issue for Phase 2 project cost and schedule is whether construction of a new hazard category 2 level facility will be required to process the sludge, regardless of whether treatment is necessary. A technical evaluation of test results from immersion milling was completed. The bench top testing model using simulant was used to predict processing conditions and treatment durations for different sludge types.

Schedule Status: On schedule.

Agreements, Commitments and Actions:

M-016-173 Select K Basin sludge treatment and packaging technology and propose new interim sludge treatment and packaging milestones.
Due 03/31/2015 DOE Lead Roger Quintero

Schedule Status: Pending completion of M-016-171.

Agreements, Commitments and Actions:

M-016-172 Complete KOP material removal from 105-KW Fuel Storage Basin.
Due 9/30/2012, DOE Lead Roger Quintero

- Procurement of the "production hardware" associated with the KPS is in progress and on schedule.
- Offsite fabrication of additional MCOs for load out of the KOP product material is in progress as well as the copper inserts that will hold the KOP product material which will placed in MCO baskets.
- Formal design review of final design was completed on August 31, 2011.
- Remedial design report decisional draft for 90% design will be completed in September 2011.
- Completed NEPA supplement analysis (SA) that allows knockout pot (KOP) product material to be managed as spent nuclear fuel (SNF). No additional NEPA action is necessary.
- KW Basin operations completed a Multi Canister Overpack (MCO) demonstration dry run.
- CVDF operations continued simulator training and systems qualifications in preparation for processing KOP material in FY 2012.

Schedule Status: On schedule.

Agreements, Commitments and Actions:

M-016-174 Complete final design of sludge retrieval and transfer system.
Due 9/30/2013, DOE Lead Roger Quintero

- Field work on making initial modifications to the 105-KW Basin Annex is in progress.
- Full scale integrated testing of the Engineered Container sludge Retrieval and Transport System was successfully completed at MASF, using a range of simulants that bound the sludge currently stored in engineered containers at the KW Basin. Test data is being assembled for preparation of the test report. Additional optimization testing continues with operator training to follow. A Value Engineering (VE) workshop was held to review the

preliminary design of the ECRTS. Several changes to the Functional Design Criteria and the system are being considered to reduce cost and risk and improve operability.

- PNNL submitted a characterization data package associated with the analysis of the sludge samples taken from Engineered Container 210 that holds KW Basin floor and pit sludge. Data review has started. Analysis of Settler Tanks sludge from Engineered Container 230 has been received and is undergoing data validation.
- Completion of preliminary design is on track for completion in November 2011.

Schedule Status: On schedule.

Agreements, Commitments and Actions:

Data validation report for EC-230 will be provided to EPA at a future PMM.

M-016-175 Begin sludge removal from 105-KW Fuel Storage Basin
Due 09/30/2014, DOE Lead Roger Quintero

Schedule Status: Pending completion of M-016-174.

Agreements, Commitments and Actions:

M-016-176 Complete sludge removal from 105-KW Fuel Storage Basin
Due 12/31/2015, DOE Lead Roger Quintero

Schedule Status: Pending completion of M-016-175.
Agreements, Commitments and Actions:

M-016-53 Complete the interim response actions for the 100 K Area within the perimeter boundary and to the river for Phase 1 actions.
Due 12/31/2012, DOE Lead Ellen Dagan

Removal Actions:

- Demolition of 183.4 KE- 100% Complete
- Demolition of 183.4 KW- 100% Complete
- Demolition of 183.1 KE below grade structure in progress-95% Complete
- Demolition of 183.3 KE -100% Complete
- Demolition of the 181-KW is complete including the placement of basalt rip rap for contouring the shoreline.
- Demolition of the 181-KE is complete including the placement of basalt rip rap for contouring the shoreline.

- Demolition of 1720-K is complete.

Remedial Actions:

- The MOA for waste site 100-K-63 was approved and issued on August 24, 2011.
- Excavation and load out were completed at the following waste sites in August:
  - 100-K-77
  - 1706-KE below grade structure
  - 1706-KER below grade structure
  - 105-KE East Annex
  - 105-KE West Annex
  - 105-KE Cyclone Separator
- The table below displays the number of tons and containers sent to ERDF during August.

Waste Site	Tons Shipped to ERDF	Number of Containers Shipped
105-KE Admin	3,517	171
1706-KER	6,587	319
1706-KE	7,225	340
105-KE Annex	4,799	231
100-K-6	1,629	22

- 190KE removal of the superstructure has been completed and removal of the substructure has commenced. Load out in progress and 50% complete.
- Confirmatory samples collected at waste site 100-K-79, Subsite 4, Treated Water Lines determined the waste site needed to be removed, a Rationale to Change the Status of this waste site was drafted and approved, document number RA-00394.
- Completing report for Carbon-14 K_d study.
- Drafting Remaining Sites Verification Package for waste site 100-K-110
- Completed the sampling at the 183.4-KW and 183.4-KE Clearwells. Sample results are being compiled and a report including the results is being drafted.
- Confirmatory samples collected at waste site 100-K-79, Subsite 4, Treated Water Lines determined the waste site needed to be removed, a Rationale to Change the Status of this waste site was drafted and approved, document number RA-00394. The draft Verification Sampling Instruction for Area AA, Zone 3, waste sites 120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4 and Stock piles #5, 7 and 9 was approved by DOE and sent to EPA for review. The samples were collected and are currently being third-party validated. An RSVP for these waste sites is being drafted.

- The draft Verification Sampling Instruction for Area AA, Zone 2, waste sites 100-K-18, 100-K-19, 100-K-79 (subsites 1a and 2a), 100-K-97, 120-KW-5 and 120-KW-7 was approved by DOE and sent to EPA for review. The samples were collected and results are currently being third-party validated. An RSVP for these waste sites is being drafted.

- The draft Verification Sampling Instruction for Area AA, Zone 4, waste site 100-K-109 was approved by DOE and sent to EPA for review. The samples were collected

and results were third-party validated. An RSVP for these waste sites is being drafted.

- The draft Verification Sample Instruction for, Area AA, Zone 1, waste sites 100-K-102, 1607-K3, 100-K-34 and structures 183.1KW and 183KWwas approved by DOE and sent to EPA for review. The samples were collected and results are currently being third-party validated. An RSVP for these waste sites is being drafted.

- Continued drafting a Verification Sample Instruction for waste sites 100-K-3, 100-K-47, 100-K-56, 100-K-68, 100-K-69, 100-K-70, 100-K-71 and 116-KE-3. The samples were collected and the data has not yet been received.

- Continued drafting a Verification Sample Instruction based on discussions with DOE and EPA for waste site 100-K-63. The sampling was completed ahead of EPA approval of the sample design.

- The draft Verification Sample Instruction for waste site 100-K-77 was approved by DOE and EPA. The samples were collected and results are currently being third-party validated. An RSVP for waste site 100-K-77 is being drafted.

- DOE and EPA met and discussed strategies for closing 100-K-64 and associated waste sites; and met to discuss the backfill of 100-K-63. An MOA is being prepared to conduct interim work to remove structure on the 100 K eastern floodplain.

Schedule Status: On schedule.
Agreements, Commitments and Actions:

DOE will continue to discuss strategy for 100-K-64 and associated waste sites, and will keep EPA informed. DOE and EPA will continue to meet to discuss facility demolition and waste site remediation scheduling per the integrated schedule revisions. EPA concurred that backfill can recommence for the 183KW Sedimentation Basin Complex. DOE agreed to compare verification data to draft PRGs and document the comparison in the 100-K-110 waste site RSVP.

M-016-143 Complete the interim response actions for the 100 K Area within the perimeter boundary and to the river for Phase 2 actions.
Due 12/31/2015, DOE Lead Ellen Dagan/Steve Balone

- Demolition of 1720K is complete.

Schedule Status: On schedule.
Agreements, Commitments and Actions:

M-016-178 Initiate deactivation of 105-KW Fuel Storage Basin
Due 12/31/2015, DOE Lead Steve Balone
Schedule Status: Below water debris that will remain in the basin for removal as part of the basin substructure during demolition of the basin is being prepared for grouting by transloading the debris underwater into bins which includes an inspection for found fuel and removal of sludge from the internals of pumps once used for transferring sludge within the basin.

Agreements, Commitments and Actions:

MILESTONE	DESCRIPTION	DUE DATE	DOE LEAD	SCHEDULE STATUS
M-093-22	Complete 105-KE Reactor Interim Safe Storage in Accordance with Remedial Design/Remedial Action Work Plan	7/31/2014	Ellen Dagan	On Schedule
M-093-26	Initiate 105-KW Reactor Interim Safe Storage	12/31/2015	Steve Balone	On Schedule
M-016-181	Complete Deactivation, Demolition, and Removal of 105-KW Fuel Storage Basin	9/30/2019	Steve Balone	On Schedule
M-093-27	Complete 105-KW Reactor Interim Safe Storage	12/31/2019	Steve Balone	On Schedule
M-016-186	Initiate Soil Remediation Under 105KW Fuel Storage Basin	12/31/2019	Steve Balone	On Schedule
M-016-00C	Complete All Response Actions in The 100 K Area	12/31/2020	Tom Teynor	On Schedule

ATTACHMENT 3
100K AREA PROJECT MANAGERS MEETING RESPONSE ACTION AGREEMENTS

- 190-KE & -KW Pumphouse path forward:
  It was agreed that the water from the pumphouses would be used as dust suppression or released into the clearwells. Two samples of the soil underneath the pumphouse from both the KE and the KW structure will be taken once the water is drained for evaluation. This approach was discussed with EPA during a walk down on August 2, 2011. EPA concurrence with this approach is documented on the attached email. (Attachment 4)

- 183.4-KE & -KW Clearwell – D&D completion and backfill concurrence:
  Analytical data for the concrete floor and walls, as well as the underlying soil of the KE and KW clearwells indicates that the D&D activities are complete in accordance with the applicable RAWP, and no remedial action is required for the underlying soils. The clearwells will be backfilled with demolition rubble and contoured with a cover of minimally 1 meter of soil. (Attachment 5) EPA concurrence with approach received at the September 8, 2011 PMM.

183.4-KW Clearwell Floor/Wall Cleanup Level Summary:

Contaminant-Specific Concentrations and Comparison to RAGs and Concrete and Soil K_d Values

Contaminant	Soil K_d Value (mL/g)	Concrete K_d Value (mL/g)	Back-ground (pCi/g)	RDL (pCi/g)	Soil Cleanup Levels (pCi/g) [a]			Highest Sample Result	Additional Analysis?		
					Direct Exposure	Ground-water Protection	River Protection				
Radionuclides											
Gross Alpha	--	--		--	--	--	--	2.8	No		
Gross Beta	--	--		--	--	--	--	3.7	No		
Contaminant	**Soil K_d Value (mL/g)**	**Concrete K_d Value (mL/g)**	**Back-ground (mg/kg)**	**RDL (mg/kg)**	**Soil Cleanup Levels (mg/kg)**			**Highest Sample Result**	**Exceeds RAGs?**	**Concrete K_d <3.6 mL/g?**	**Soil K_d <3.6 mL/g?**
					Direct Exposure	**Ground-water Protection**	**River Protection**				
Metals											
Antimony	3.76	45	5	0.6	32	5 [c]	5 [c]	29.3	Yes	No	
Arsenic	3	100	6.5	10	20 [c]	20 [c]	20 [c]	54.3	Yes	No	
Barium	25	25	132	2	5,600	200	400	174	No		
Beryllium	790	--	1.51	0.5	10.4 [e]	1.51 [c]	1.51 [c]	0.5	No		
Boron	3	--	-- [f]	2	7,200	320	--	22.5	No		
Cadmium	30	30	0.81 [g]	0.5	13.9 [e]	0.81 [c]	0.81 [c]	8.39	Yes	No	
Chromium, Total	200	200	18.5	1	80,000	18.5 [c]	18.5 [c]	19.7	Yes	No	
Chromium VI	0	870	-- [f]	0.5	2.1 [c]	4.8	2	2.45	Yes	No	
Cobalt	50	--	15.7	2	24	15.7 [c]	--	12.9	No		
Copper	22	100	22.0	1	2,960	59.2	22.0 [c]	77.5	Yes	No	
Lead	30	500	10.2	5	353	10.2 [c]	10.2 [c]	447	Yes	No	
Manganese	50	100	512	5	3,760	512 [c]	512 [c]	587	Yes	No	
Mercury	30	30	0.33	0.2	24	0.33 [c]	0.33 [c]	1.91	Yes	No	
Molybdenum	20	--	-- [f]	2	400	8	--	3.41	No		
Nickel	65	100	19.1	4	1,600	19.1 [c]	27.4	28.7	Yes	No	
Selenium	5	0.1	0.78 [g]	1	400	5	1	1.43	Yes	Yes	No
Silver	90	1	0.73	0.2	400	8	0.73 [c]	0.115	No		
Strontium	25	--	-- [f]	1	48,000	960	--	81.2	No		
Tin	130	--	-- [f]	10	48,000	960	--	19.7	No		
Uranium (soluble salts)	2	--	3.21	1	240	3.21 [c]	3.21 [c]	2.08	No		
Vanadium	1,000	100	85.1	2.5	560	85.1 [c]	--	80.2	No		
Zinc	30	30	67.8	1	24,000	480	67.8 [c]	1,000	Yes	No	
Inorganic Anions											
Chloride	0	--	100	2	--	25,000	--	10.1	No		
Sulfate	0	0	237	5	--	25,000	--	587	No		

[a] Soil cleanup levels in this table are obtained from Table B-4 and B-7 of Appendix B of the 100 Area RDR (DOE/RL-96-17, Rev 6). Radionuclide soil activities protective of groundwater and the river were calculated using RESRAD Version 6.4 (ANL 2007) assuming that no uncontaminated vadose zone exists between the contaminated zone and groundwater. Nonradionuclide soil concentrations protective of groundwater and the river are based upon application of the "100 times" rule (Ecology 1996).

[c] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project Managers as discussed in Section 2.1.2.1 of this document.

[e] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (WDOH 1997).

[f] No Hanford Site-specific or Washington State background value is available.

[g] Hanford Site-specific background not available. Value is Washington State background from Ecology (1994).

-- = not available
EPA = U.S. Environmental Protection Agency
K_d = Distribution coefficient discussed in Appendix E. K_d values also found in the Ecology CLARC Database at < http://www.ecy.wa.gov > or from the Risk Assessment Information System database maintained by the Oak Ridge National Laboratory at < http://risk.lsd.ornl.gov >.
PCB = polychlorinated biphenyl
RDL = required detection limit
RESRAD = RESidual RADioactivity
TPH = total petroleum hydrocarbon
WAC = *Washington Administrative Code*
B = analyte was detected in both the blank and the sample
N = spike recovery is outside the control limits
X = The laboratory control sample did not meet laboratory acceptance limits

Attachment 4: 183.4-KW Clearwell Floor/Wall Cleanup Level Summary:

Contaminant-Specific Concentrations and Comparison to RAGs and Concrete and Soil K_d Values

Contaminant	Soil K_d Value (mL/g)	Concrete K_d Value (mL/g)	Back-ground (pCi/g)	RDL (pCi/g)	Soil Cleanup Levels (pCi/g) [a]			Highest Sample Result	Additional Analysis?		
					Direct Exposure	Ground-water Protection	River Protection				
Radionuclides											
Gross Alpha	--	--		--	--	--	--	2.8	No		
Gross Beta	--	--		--	--	--	--	3.7	No		
Contaminant	**Soil K_d Value (mL/g)**	**Concrete K_d Value (mL/g)**	**Back-ground (mg/kg)**	**RDL (mg/kg)**	**Soil Cleanup Levels (mg/kg)**			**Highest Sample Result**	**Exceeds RAGs?**	**Concrete K_d <3.6 mL/g?**	**Soil K_d <3.6 mL/g?**
					Direct Exposure	**Ground-water Protection**	**River Protection**				
Metals											
Antimony	3.76	45	5	0.6	32	5 [c]	5 [c]	29.3	Yes	No	
Arsenic	3	100	6.5	10	20 [c]	20 [c]	20 [c]	54.3	Yes	No	
Barium	25	25	132	2	5,600	200	400	174	No		
Beryllium	790	--	1.51	0.5	10.4 [e]	1.51 [c]	1.51 [c]	0.5	No		
Boron	3	--	-- [f]	2	7,200	320	--	22.5	No		
Cadmium	30	30	0.81 [g]	0.5	13.9 [e]	0.81 [c]	0.81 [c]	8.39	Yes	No	
Chromium, Total	200	200	18.5	1	80,000	18.5 [c]	18.5 [c]	19.7	Yes	No	
Chromium VI	0	870	-- [f]	0.5	2.1 [c]	4.8	2	2.45	Yes	No	
Cobalt	50	--	15.7	2	24	15.7 [c]	--	12.9	No		
Copper	22	100	22.0	1	2,960	59.2	22.0 [c]	77.5	Yes	No	
Lead	30	500	10.2	5	353	10.2 [c]	10.2 [c]	447	Yes	No	
Manganese	50	100	512	5	3,760	512 [c]	512 [c]	587	Yes	No	
Mercury	30	30	0.33	0.2	24	0.33 [c]	0.33 [c]	1.91	Yes	No	
Molybdenum	20	--	-- [f]	2	400	8	--	3.41	No		
Nickel	65	100	19.1	4	1,600	19.1 [c]	27.4	28.7	Yes	No	
Selenium	5	0.1	0.78 [g]	1	400	5	1	1.43	Yes	Yes	No
Silver	90	1	0.73	0.2	400	8	0.73 [c]	0.115	No		
Strontium	25	--	-- [f]	1	48,000	960	--	81.2	No		
Tin	130	--	-- [f]	10	48,000	960	--	19.7	No		
Uranium (soluble salts)	2	--	3.21	1	240	3.21 [c]	3.21 [c]	2.08	No		
Vanadium	1,000	100	85.1	2.5	560	85.1 [c]	--	80.2	No		
Zinc	30	30	67.8	1	24,000	480	67.8 [c]	1,000	Yes	No	
Inorganic Anions											
Chloride	0	--	100	2	--	25,000	--	10.1	No		
Sulfate	0	0	237	5	--	25,000	--	587	No		

[a] Soil cleanup levels in this table are obtained from Table B-4 and B-7 of Appendix B of the 100 Area RDR (DOE/RL-96-17, Rev 6). Radionuclide soil activities protective of groundwater and the river were calculated using RESRAD Version 6.4 (ANL 2007) assuming that no uncontaminated vadose zone exists between the contaminated zone and groundwater. Nonradionuclide soil concentrations protective of groundwater and the river are based upon application of the "100 times" rule (Ecology 1996).

[c] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project Managers as discussed in Section 2.1.2.1 of this document.

[e] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (WDOH 1997).

[f] No Hanford Site-specific or Washington State background value is available.

[g] Hanford Site-specific background not available. Value is Washington State background from Ecology (1994).

-- = not available
EPA = U.S. Environmental Protection Agency
K_d = Distribution coefficient discussed in Appendix E. K_d values also found in the Ecology CLARC Database at < http://www.ecy.wa.gov > or from the Risk Assessment Information System database maintained by the Oak Ridge National Laboratory at < http://risk.lsd.ornl.gov >.
PCB = polychlorinated biphenyl
RDL = required detection limit
RESRAD = RESidual RADioactivity
TPH = total petroleum hydrocarbon
WAC = *Washington Administrative Code*
B = analyte was detected in both the blank and the sample
N = spike recovery is outside the control limits
X = The laboratory control sample did not meet laboratory acceptance limits

Attachment 5: 183.4-KW Clearwell Underlying Soil Cleanup Level Summary:

Contaminant-Specific Concentrations and Comparison to RAGs and Soil K_d Values

Contaminant	Soil K_d Value (mL/g)	Back-ground (pCi/g)	RDL (pCi/g)	Soil Cleanup Levels (pCi/g) [a]			Highest Sample Result	Additional Analysis?	
				Direct Exposure	Ground-water Protection	River Protection			
Radionuclides									
Gross Alpha	--		--	--	--	--	1.5	No	
Gross Beta	--		--	--	--	--	3.4	No	
Contaminant	**Soil K_d Value (mL/g)**	**Back-ground (mg/kg)**	**RDL (mg/kg)**	**Soil Cleanup Levels (mg/kg)**			**Highest Sample Result**	**Exceeds RAGs?**	**Soil K_d <3.6 mL/g?**
				Direct Exposure	**Ground-water Protection**	**River Protection**			
Metals									
Antimony	3.76	5	0.6	32	5 [c]	5 [c]	6.02 N	Yes	No
Arsenic	3	6.5	10	20 [c]	20 [c]	20 [c]	10.2	No	
Barium	25	132	2	5,600	200	400	103	No	
Beryllium	790	1.51	0.5	10.4 [e]	1.51 [c]	1.51 [c]	0.347	No	
Boron	3	-- [f]	2	7,200	320	--	1.18	No	
Cadmium	30	0.81 [g]	0.5	13.9 [e]	0.81 [c]	0.81 [c]	0.11	No	
Chromium, Total	200	18.5	1	80,000	18.5 [c]	18.5 [c]	8.44	No	
Chromium VI	0	-- [f]	0.5	2.1 [c]	4.8	2	0.269	No	
Cobalt	50	15.7	2	24	15.7 [c]	--	13.2	No	
Copper	22	22.0	1	2,960	59.2	22.0 [c]	20.8	No	
Lead	30	10.2	5	353	10.2 [c]	10.2 [c]	19.4	Yes	No
Manganese	50	512	5	3,760	512 [c]	512 [c]	453	No	
Mercury	30	0.33	0.2	24	0.33 [c]	0.33 [c]	0.054	No	
Molybdenum	20	-- [f]	2	400	8	--	0.612	No	
Nickel	65	19.1	4	1,600	19.1 [c]	27.4	10.8	No	
Selenium	5	0.78 [g]	1	400	5	1	1.82 B	Yes	No
Silver	90	0.73	0.2	400	8	0.73 [c]	0.11	No	
Strontium	25	-- [f]	1	48,000	960	--	36.6	No	
Tin	130	-- [f]	10	48,000	960	--	1.24	No	
Uranium (soluble salts)	2	3.21	1	240	3.21 [c]	3.21 [c]	0.621	No	
Vanadium	1,000	85.1	2.5	560	85.1 [c]	--	89.3	Yes	No
Zinc	30	67.8	1	24,000	480	67.8 [c]	70.2	Yes	No
Inorganic Anions									
Chloride	0	100	2	--	25,000	--	3.3	No	
Sulfate	0	237	5	--	25,000	--	126	No	

[a] Soil cleanup levels in this table are obtained from Table B-4 and B-7 of Appendix B of the 100 Area RDR (DOE/RL-96-17, Rev 6). Radionuclide soil activities protective of groundwater and the river were calculated using RESRAD Version 6.4 (ANL 2007) assuming that no uncontaminated vadose zone exists between the contaminated zone and groundwater. Nonradionuclide soil concentrations protective of groundwater and the river are based upon application of the "100 times" rule (Ecology 1996).

[c] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project Managers as discussed in Section 2.1.2.1 of this document.

[e] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (WDOH 1997).

[f] No Hanford Site-specific or Washington State background value is available.

[g] Hanford Site-specific background not available. Value is Washington State background from Ecology (1994).

-- = not available
EPA = U.S. Environmental Protection Agency
K_d = Distribution coefficient discussed in Appendix E. K_d values also found in the Ecology CLARC Database at < http://www.ecy.wa.gov > or from the Risk Assessment Information System database maintained by the Oak Ridge National Laboratory at < http://risk.lsd.ornl.gov >.
PCB = polychlorinated biphenyl
RDL = required detection limit
RESRAD = RESidual RADioactivity
TPH = total petroleum hydrocarbon
WAC = *Washington Administrative Code*
B = analyte was detected in both the blank and the sample
N = spike recovery is outside the control limits
X = The laboratory control sample did not meet laboratory acceptance limits

Attachment 6: 183.4-KE Clearwell Floor/Wall Cleanup Level Summary:

Contaminant-Specific Concentrations and Comparison to RAGs and Concrete and Soil K_d Values

Contaminant	Soil K_d Value (mL/g)	Concrete K_d Value (mL/g)	Back-ground (pCi/g)	RDL (pCi/g)	Soil Cleanup Levels (pCi/g) [a]			Highest Sample Result	Additional Analysis?		
					Direct Exposure	Ground-water Protection	River Protection				
Radionuclides											
Gross Alpha	--	--		--	--	--	--	2.8	No		
Gross Beta	--	--		--	--	--	--	3.7	No		
Contaminant	**Soil K_d Value (mL/g)**	**Concrete K_d Value (mL/g)**	**Back-ground (mg/kg)**	**RDL (mg/kg)**	**Soil Cleanup Levels (mg/kg)**			**Highest Sample Result**	**Exceeds RAGs?**	**Concrete K_d <3.6 mL/g?**	**Soil K_d <3.6 mL/g?**
					Direct Exposure	**Ground-water Protection**	**River Protection**				
Metals											
Antimony	3.76	45	5	0.6	32	5 [c]	5 [c]	21.9	Yes	No	
Arsenic	3	100	6.5	10	20 [c]	20 [c]	20 [c]	60.8	Yes	No	
Barium	25	25	132	2	5,600	200	400	174	No		
Beryllium	790	--	1.51	0.5	10.4 [e]	1.51 [c]	1.51 [c]	0.523	No		
Boron	3	--	-- [f]	2	7,200	320	--	6.79	No		
Cadmium	30	30	0.81 [g]	0.5	13.9 [e]	0.81 [c]	0.81 [c]	8.01	Yes	No	
Chromium, Total	200	200	18.5	1	80,000	18.5 [c]	18.5 [c]	16.7	No		
Chromium VI	0	870	-- [f]	0.5	2.1 [c]	4.8	2	0.569	No		
Cobalt	50	--	15.7	2	24	15.7 [c]	--	13.3	No		
Copper	22	100	22.0	1	2,960	59.2	22.0 [c]	90.5	Yes	No	
Lead	30	500	10.2	5	353	10.2 [c]	10.2 [c]	15.8	Yes	No	
Manganese	50	100	512	5	3,760	512 [c]	512 [c]	628	Yes	No	
Mercury	30	30	0.33	0.2	24	0.33 [c]	0.33 [c]	1.21	Yes	No	
Molybdenum	20	--	-- [f]	2	400	8	--	13	Yes	--	No
Nickel	65	100	19.1	4	1,600	19.1 [c]	27.4	22.7	Yes	No	
Selenium	5	0.1	0.78 [g]	1	400	5	1	1.34	Yes	Yes	No
Silver	90	1	0.73	0.2	400	8	0.73 [c]	0.175	No		
Strontium	25	--	-- [f]	1	48,000	960	--	73.5	No		
Tin	130	--	-- [f]	10	48,000	960	--	18.9	No		
Uranium (soluble salts)	2	--	3.21	1	240	3.21 [c]	3.21 [c]	2.24	No		
Vanadium	1,000	100	85.1	2.5	560	85.1 [c]	--	78.1	No		
Zinc	30	30	67.8	1	24,000	480	67.8 [c]	940	Yes	No	
Inorganic Anions											
Chloride	0	--	100	2	--	25,000	--	17.3	No		
Sulfate	0	0	237	5	--	25,000	--	592	No		

[a] Soil cleanup levels in this table are obtained from Table B-4 and B-7 of Appendix B of the 100 Area RDR (DOE/RL-96-17, Rev 6). Radionuclide soil activities protective of groundwater and the river were calculated using RESRAD Version 6.4 (ANL 2007) assuming that no uncontaminated vadose zone exists between the contaminated zone and groundwater. Nonradionuclide soil concentrations protective of groundwater and the river are based upon application of the "100 times" rule (Ecology 1996).

[c] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project Managers as discussed in Section 2.1.2.1 of this document.

[e] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (WDOH 1997).

[f] No Hanford Site-specific or Washington State background value is available.

[g] Hanford Site-specific background not available. Value is Washington State background from Ecology (1994).

-- = not available
EPA = U.S. Environmental Protection Agency
K_d = Distribution coefficient discussed in Appendix E. K_d values also found in the Ecology CLARC Database at < http://www.ecy.wa.gov > or from the Risk Assessment Information System database maintained by the Oak Ridge National Laboratory at < http://risk.lsd.ornl.gov >.
PCB = polychlorinated biphenyl
RDL = required detection limit
RESRAD = RESidual RADioactivity
TPH = total petroleum hydrocarbon
WAC = *Washington Administrative Code*
B = analyte was detected in both the blank and the sample
N = spike recovery is outside the control limits
X = The laboratory control sample did not meet laboratory acceptance limits

Attachment 7: 183.4-KE Clearwell Underlying Soil Cleanup Level Summary:

Contaminant-Specific Concentrations and Comparison to RAGs and Soil K_d Values

Contaminant	Soil K_d Value (mL/g)	Back-ground (pCi/g)	RDL (pCi/g)	Soil Cleanup Levels (pCi/g) [a]			Highest Sample Result	Additional Analysis?	
				Direct Exposure	Ground-water Protection	River Protection			
Radionuclides									
Gross Alpha	--		--	--	--	--	2.9	No	
Gross Beta	--		--	--	--	--	4	No	
Contaminant	**Soil K_d Value (mL/g)**	**Back-ground (mg/kg)**	**RDL (mg/kg)**	**Soil Cleanup Levels (mg/kg)**			**Highest Sample Result**	**Exceeds RAGs?**	**Soil K_d <3.6 mL/g?**
				Direct Exposure	**Ground-water Protection**	**River Protection**			
Metals									
Antimony	3.76	5	0.6	32	5 [c]	5 [c]	4.62	No	
Arsenic	3	6.5	10	20 [c]	20 [c]	20 [c]	9.39	No	
Barium	25	132	2	5,600	200	400	96.1	No	
Beryllium	790	1.51	0.5	10.4 [e]	1.51 [c]	1.51 [c]	0.323	No	
Boron	3	-- [f]	2	7,200	320	--	6.75	No	
Cadmium	30	0.81 [g]	0.5	13.9 [e]	0.81 [c]	0.81 [c]	0.142	No	
Chromium, Total	200	18.5	1	80,000	18.5 [c]	18.5 [c]	14.4	No	
Chromium VI	0	-- [f]	0.5	2.1 [c]	4.8	2	0.216	No	
Cobalt	50	15.7	2	24	15.7 [c]	--	12.3	No	
Copper	22	22.0	1	2,960	59.2	22.0 [c]	21.8	No	
Lead	30	10.2	5	353	10.2 [c]	10.2 [c]	8.4	No	
Manganese	50	512	5	3,760	512 [c]	512 [c]	464	No	
Mercury	30	0.33	0.2	24	0.33 [c]	0.33 [c]	0.06	No	
Molybdenum	20	-- [f]	2	400	8	--	1.03	No	
Nickel	65	19.1	4	1,600	19.1 [c]	27.4	15.8	No	
Selenium	5	0.78 [g]	1	400	5	1	0.97	No	
Silver	90	0.73	0.2	400	8	0.73 [c]	0.12	No	
Strontium	25	-- [f]	1	48,000	960	--	57.5	No	
Tin	130	-- [f]	10	48,000	960	--	1.19	No	
Uranium (soluble salts)	2	3.21	1	240	3.21 [c]	3.21 [c]	0.925	No	
Vanadium	1,000	85.1	2.5	560	85.1 [c]	--	86.6	Yes	No
Zinc	30	67.8	1	24,000	480	67.8 [c]	72.7	Yes	No
Inorganic Anions									
Chloride	0	100	2	--	25,000	--	11.9	No	
Sulfate	0	237	5	--	25,000	--	176	No	

[a] Soil cleanup levels in this table are obtained from Table B-4 and B-7 of Appendix B of the 100 Area RDR (DOE/RL-96-17, Rev 6). Radionuclide soil activities protective of groundwater and the river were calculated using RESRAD Version 6.4 (ANL 2007) assuming that no uncontaminated vadose zone exists between the contaminated zone and groundwater. Nonradionuclide soil concentrations protective of groundwater and the river are based upon application of the "100 times" rule (Ecology 1996).

[c] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project Managers as discussed in Section 2.1.2.1 of this document.

[e] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (WDOH 1997).

[f] No Hanford Site-specific or Washington State background value is available.

[g] Hanford Site-specific background not available. Value is Washington State background from Ecology (1994).

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EPA = U.S. Environmental Protection Agency
K_d = Distribution coefficient discussed in Appendix E. K_d values also found in the Ecology CLARC Database at < http://www.ecy.wa.gov > or from the Risk Assessment Information System database maintained by the Oak Ridge National Laboratory at < http://risk.lsd.ornl.gov >.
PCB = polychlorinated biphenyl
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RESRAD = RESidual RADioactivity
TPH = total petroleum hydrocarbon
WAC = *Washington Administrative Code*
B = analyte was detected in both the blank and the sample
N = spike recovery is outside the control limits
X = The laboratory control sample did not meet laboratory acceptance limits

100K Area Removal Action Status (September 15, 2011)

Phase 1 M-016-053: December 31, 2012	Phase 2 M-016-143: December 31, 2015	Phase 3 (M-016-00C: December 31, 2020)
110KW Gas Storage Facility	115KW Gas Recirculation Building	105KW Water Tunnel
110KE Gas Storage Facility	116KW Reactor Exhaust Stack	142K CVDF
115KE Gas Recirculation Building	117KW Exhaust Air Filter Building	1506K1 Fiber Optics Hut
116KE Reactor Exhaust Stack	118KW Horizontal Control Rod Storage Cave	165KE Power Control Bldg
117KE Exhaust Air Filter Building	119KW Exhaust Air Sampling Building	142KA CVDF Generator Bldg
118KE Horizontal Control Rod Storage Cave	166AKE Oil Storage Facility	165KW Power Control Bldg
119KE Exhaust Air Sampling	166KE Oil Storage Vault	167K Cross-tie Tunnel Bldg
1706KE Radiation Control Counting Lab	166KW Oil Storage Vault	1717K Maintenance Shop
1706KEL Developmental Lab	1705KE Effluent Water Treatment Pilot Plant	1724K Maintenance Shop
1706KER Water Studies Recirculation Bldg	1713KER Shop Building	1724KA Storage Shed
1713KE Warehouse	1713KW Warehouse	181KW River Pump House
1714KE Oil and Paint Storage Shed	1714KW Oil and Paint Storage Shed	183KE Chlorine Vault
183.4KW Clearwell	1720K Administration Office Building	183.2KE Sedimentation Basin
183.1KW Head House	1724KB Gas Bottle Storage Facility	183.3KE Filter Basin
181KE River Pump House	182K Emergency Water Reservoir Pump House	183.4KE Clearwell
183.2KW Sedimentation Basin	183.5KW Lime Feeder Building	183.1KE Headhouse
183.3KW Filter Basin	183.6KW Lime Feeder Building	183.5KE Lime Feeder
MO048 Construction Lunch Trailer	MO101 Administration	183.6KE Lime Feeder
MO060 Conference Trailer	MO102 Administration	185K Potable Water Treatment Plant
MO872 Leased trailer	MO214 Administration	1908K Outfall Structure
MO873 Leased trailer	MO382 Office	1908KE Outfall Structure
MO969 HPT Change Trailer	MO401 Administration	190KE Main Pump House
1605KE Guard Tower East	MO402 Administration	190KW Main Pump House
	MO442 Classroom/Office	MO054 Construction Lunch Room
	MO506 CVDF Lunch Room	MO500 Administration
	MO507 CVDF Conference Room	MO236 KW Ops/HPT Change
	MO907 Administration	MO237 KW Construction Forces
	MO917 CVDF Administration	MO323 CVD Change Trailer
	MO928 Administration	MO955 Conference Room
		1605KW Guard Tower West

Field Work In Progress

Demolition Complete

Closure Actions and Documentation Complete

Site Code	Site Names	TPA-CN-320	PMB Remedy	CSNA Documentation	RTD Status	VSI	VSI Status	RSVP	Area	Backfill Date (estimated)	Revegetation Date (estimated)
100-K-42	100-K-42, 100 Area KE Basin, 105-KE Fuel Storage Basin, K East Basin, Irradiated Fissile Material Storage, Metal Storage Basin, 100-K-40	N/A	RTD								
100-K-50	100-K-50, 1725-K & 1726-K Sanitary Sewer System Holding Tank	N/A	RTD								
118-KE-1	118-KE-1, 105-KE Reactor Building	N/A	CSNA								
UPR-100-K-1	UPR-100-K-1, 105-KE Fuel Storage Basin leak, UN-100-K-1	N/A	CSNA								
100-K-18	100-K-18, 183-KW Caustic Neutralization Pit	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00368	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
100-K-19	100-K-19, 183-KW Caustic Soda Storage Tank Site	Phase 1	CSNA	RA-00134	EPA comments are being incorporated into V.S.I, Samples collected	RA-00368	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
100-K-3	100-K-3, 1706-KE Fish Pond Heat Exchanger Pit and Pump Pit, Water Studies Semi-Works	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-34	100-K-34, 183-KW Acid Neutralization Pit	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00371	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
100-K-36	100-K-36, 1706-KE Chemical Storage Facility Dry Well	Phase 1	CSNA	RA-00122	Field work complete, working on final civil survey and GPERS map				East of 1706-KE	6/30/2012	11/30/2012
100-K-37	100-K-37, 1706-KE Sulfuric Acid Tank	Phase 1	CSNA	RA-00122	Closed			DOE/RL-2010-44	N/A	N/A	11/30/2012
100-K-38	100-K-38, 1706-KE Caustic Soda Tank	Phase 1	CSNA	RA-00122	Closed			DOE/RL-2010-44	N/A	N/A	11/30/2012
100-K-46	100-K-46, 119-KE French Drain, Drywell	Phase 1	CSNA	RA-00145	Field work complete, working on final civil survey and GPERS map				East of 105-KE	6/30/2012	11/30/2012
100-K-53	100-K-53, 100-KE Glycol Heat Recovery Underground Pipelines	Phase 1	RTD	N/A	Some Samples Collected, Field work complete working on final civil survey and GPERS map				East of 105-KE	6/30/2012	11/30/2012
100-K-55	100-K-55, 100-KW Reactor Cooling Water Effluent Underground Pipelines (See Subsites)	Phase 1	RTD	N/A	Not Started, included in TPA-CN-412				N/A	TBD	TBD
100-K-56	100-K-56, 100-KE Reactor Cooling Water Effluent Underground Pipelines (See Subsites)	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-57	100-K-57, 107-KE Drainage Ditch	Phase 1	RTD	N/A	Not Started, included in TPA-CN-412				KE Floodplain	TBD	TBD
100-K-6	100-K-6, Vacuum Pit, Cyclone Separator, 105-KE Vacuum Pit	Phase 1	CSNA	RA-00142	Field work complete, working on final civil survey and GPERS map				East of 105-KE	6/30/2012	11/30/2012
100-K-62	100-K-62, 117-KE Filter Building	Phase 1	CSNA	RA-00136	Field work complete, working on final civil survey and GPERS map				East of 105-KE	6/30/2012	11/30/2012
100-K-63	100-K-63, 100-KW Floodplain, 100-K Flood Plain Contamination Area	Phase 1	CSNA	RA-00086	Drafting V.S.I. Samples currently being collected		Drafting VSI waiting for ARES Civil Survey		KW Floodplain	6/30/2012	11/30/2012
100-K-64	100-K-64, 100-KE Floodplain, 100-KE Flood Plain Contamination Area	Phase 1	CSNA	RA-00086	Not Started, included in TPA-CN-412				KE Floodplain	TBD	TBD
100-K-68	100-K-68, 105-KE Pump Gallery and Catch Tank, D Sump	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-69	100-K-69, 105-KE Sump C	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-70	100-K-70, 105-KE Waste Storage Tank, Holding Tank	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-71	100-K-71, 105-KE Collection Box	Phase 1	RTD	N/A	Drafting V.S.I. Samples collected 8/17/2011		Drafting VSI waiting for ARES Civil Survey		North of 105-KE	6/30/2012	11/30/2012
100-K-77	100-K-77, Underground Railroad Ties Southeast of 1706KE	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00379	EPA comments are being incorporated into V.S.I		East of 1706-KE	6/30/2012	11/30/2012
100-K-79	100-K-79; Sodium Dichromate and Sulfuric Acid Product Pipelines at 100-K	Phase 1	CSNA	RA-00134	Not Started / Failed Confirmatory Sampling / Collected Verification Samples VSI with EPA	RA-00368	EPA comments are being incorporated into V.S.I		KW Headhouse, KE Headhouse and runs	TBD	TBD
116-KE-1	116-KE-1, 115-KE Condensate Crib	Phase 1	RTD	N/A	Not complete, included in TPA-CN-412				N/A	TBD	TBD
116-KE-3	116-KE-3, 105-KE Storage Basin French Drain, 105-KE Fuel Storage Basin Sub-Basin Drainage Disposal System Crib	Phase 1	RTD	N/A	Ongoing field work				North of 105-KE	6/30/2012	11/30/2012

Site Code	Site Names	TPA-CN-320	PMB Remedy	CSNA Documentation	RTD Status	VSI	VSI Status	RSVP	Area	Backfill Date (estimated)	Revegetation Date (estimated)
116-KE-6A	116-KE-6A, 1706-KE Condensate Collection Tank, 1706-KE Waste Treatment System	Phase 1	CSNA	RA-00121	Closed			DOE/RL-2010-42	N/A	N/A	11/30/2012
116-KE-6B	116-KE-6B, 1706-KE Evaporation Tank, 1706-KE Waste Treatment System	Phase 1	CSNA	RA-00121	Closed			DOE/RL-2010-42	N/A	N/A	11/30/2012
116-KE-6C	116-KE-6C, 1706-KE Waste Accumulation Tank, 1706-KE Waste Treatment System	Phase 1	CSNA	RA-00121	Closed			DOE/RL-2010-42	N/A	N/A	11/30/2012
116-KE-6D	116-KE-6D, 1706-KE Ion Exchange Column, 1706-KE Waste Treatment System	Phase 1	CSNA	RA-00121	Closed			DOE/RL-2010-42	N/A	N/A	11/30/2012
118-KE-2	118-KE-2, 105-KE Horizontal Control Rod Storage Cave	Phase 1	CSNA	RA-00119	Closed			DOE/RL-2010-50	N/A	N/A	11/30/2012
120-KW-1	120-KW-1, 183-KW Filter Water Facility Dry Well, 100-KW-1, 183-KW Acid Neutralization Pit, 100-K-17	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00358	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
120-KW-2	120-KW-2, 183-KW Filter Water Facility French Drain, 100-KW-2	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00358	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
120-KW-3	120-KW-3, 183-KW1 Sulfuric Acid Storage Tank	Phase 1	CSNA	RA-00134	EPA comments are being incorporated into V.S.I, Samples collected	RA-00358	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
120-KW-4	120-KW-4, 183-KW2 Sulfuric Acid Storage Tank	Phase 1	CSNA	RA-00134	EPA comments are being incorporated into V.S.I, Samples collected	RA-00358	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
120-KW-5	120-KW-5, 183-KW Sodium Dichromate Storage Tank	Phase 1	CSNA	RA-00134	EPA comments are being incorporated into V.S.I, Samples collected	RA-00368	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
120-KW-7	120-KW-7, 183-KW Brine Pit, 183-KW Salt Dissolving Pits and Brine Pump Pit	Phase 1	CSNA	RA-00134	EPA comments are being incorporated into V.S.I, Samples collected	RA-00368	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012
130-KE-1	130-KE-1, 105-KE Emergency Diesel Oil Storage Tank, 105-KE Emergency Diesel Fuel Tank	Phase 1	CSNA	RA-00133	Closed			DOE/RL-2010-45	N/A	N/A	11/30/2012
132-KE-1	132-KE-1, 116-KE Reactor Exhaust Stack	Phase 1	CSNA	RA-00136	Field work complete, working on final civil survey and GPERS map				East of 105-KE	6/30/2012	11/30/2012
1607-K3	1607-K3, 1607-K3 Septic Tank and Associated Drain Field, 124-KW-2, 1607-K3 Sanitary Sewer System, 1607-K3 Septic Tank	Phase 1	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00371	EPA comments are being incorporated into V.S.I		KW Headhouse	6/30/2012	11/30/2012

Site Code	Site Names	TPA-CN-320	PMB Remedy	CSNA Documentation	RTD Status	VSI	VSI Status	RSVP	Area	Backfill Date (estimated)	Revegetation Date (estimated)
100-K-96	100-K-96, 100KE River Effluent Pipeline, 100KE River Line, River Line (East) from 116-K-3 Outfall	Phase 2	RTD	N/A	Not Started						
100-K-1	100-K-1, 119-KW French Drain, 119-KW Exhaust Air Sample Building French Drain, 100-K-45	Phase 2	RTD	N/A	Not Started						
100-K-100	100-K-100, Radioactive Material Area Remaining After 107-KW Basin Removal, 116-KW-3 Remaining Contaminated Soil and Items	Phase 2	RTD	N/A	Not Started						
100-K-101	100-K-101, French Drains and Mercury Stained Soils near the 183KE Sedimentation Basin	Phase 2	RTD	N/A	Not Started						
100-K-102	100-K-102, French Drains and Mercury Stained Soils near the 183KW Sedimentation Basin	Phase 2	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00371	EPA comments are being incorporated into V.S.I				
100-K-103	100-K-103, 1704-K and 1717-K Septic Systems, 1607-K4	Phase 2	RTD	N/A	Not Started						
100-K-104	100-K-104, 166-KE French Drain	Phase 2	RTD	N/A	Not Started						
100-K-105	100-K-105, Pit at Southeast Corner of 100K	Phase 2	RTD	N/A	Not Started						
100-K-106	100-K-106, 182-K Fuel Oil Crib	Phase 2	RTD	N/A	Not Started						
100-K-107	100-K-107, 1706-KER Abandoned Drain Field	Phase 2	RTD	N/A	Not Started						
100-K-108	100-K-108, 1706-KER Septic System	Phase 2	RTD	N/A	Not Started						
100-K-109	100-K-109, Unplanned Chemical Release near 183.1KW Head House, Yellow Stained Soil adjacent to 183.1KW Head House	Phase 2	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00361	EPA comments are being incorporated into V.S.I				
100-K-13	100-K-13, French Drain West of the 166-KW Oil Storage Tank Facility	Phase 2	CSNA	RA-00144	Not Started						
100-K-14	100-K-14, 183-KE Acid Neutralization Pit and Overflow French Drain	Phase 2	RTD	N/A	Not Started						
100-K-25	100-K-25, 183-KE Caustic Neutralization Pit	Phase 2	CSNA	RA-00139	Not Started						
100-K-27	100-K-27, 183-KE Caustic Soda Storage Tank Site	Phase 2	RTD	N/A	Not Started						
100-K-4	100-K-4, 1706-KE Wet Fish Studies Ponds and Valve Pit	Phase 2	RTD	N/A	Closed			DOE-RL-2010-43			
100-K-48	100-K-48, 100-KE Oil Contamination Areas	Phase 2	CSNA	RA-00147	Not Started						
100-K-49	100-K-49, 100-KW Oil Contamination Area	Phase 2	CSNA	RA-00147	Not Started						
100-K-5	100-K-5, 1705-KE French Drain	Phase 2	CSNA	RA-00146	Not Started						
100-K-54	100-K-54, 100-KW Glycol Heat Recovery Underground Pipelines	Phase 2	RTD	N/A	Not Started						
100-K-56	100-K-56, 100-KE Reactor Cooling Water Effluent Underground Pipelines (See Subsites)	Phase 2	RTD	N/A	Not Started						
100-K-60	100-K-60, 1904-K Process Sewer (165-KW)	Phase 2	CSNA	RA-00148	Not Started						
100-K-61	100-K-61, 117-KW Filter Building	Phase 2	CSNA	RA-00136	Not Started						
100-K-66	100-K-66, 165-KW Power Control Building	Phase 2	CSNA	RA-00136	Not Started						
100-K-67	100-K-67, 165-KE Power Control Building	Phase 2	CSNA	RA-00136	Not Started						
100-K-83	100-K-83, 1904- K Spillway, 116-K-3, 1904-K Outfall Structure	Phase 2	CSNA	RA000149	Not Started						
100-K-94	100-K-94, 1702-KE and 1702-KW Guard House Dry Wells	Phase 2	RTD	N/A	Not Started						

Site Code	Site Names	TPA-CN-320	PMB Remedy	CSNA Documentation	RTD Status	VSI	VSI Status	RSVP	Area	Backfill Date (estimated)	Revegetation Date (estimated)
100-K-97	100-K-97, 183-KW French Drain and Rail Spur Unplanned Release	Phase 2	RTD	N/A	EPA comments are being incorporated into V.S.I, Samples collected	RA-00368	EPA comments are being incorporated into V.S.I				
100-K-98	100-K-98, 183-KE French Drain and Rail Spur Unplanned Release	Phase 2	RTD	N/A	Not Started						
100-K-99	100-K-99, Radioactive Material Area Remaining After 107-KE Basin Removal, 116-KE-4 Contaminated Soil and Items	Phase 2	RTD	N/A	Not Started						
116-KW-1	116-KW-1, 115-KW Condensate Crib	Phase 2	RTD	N/A	Not Started						
118-KW-2	118-KW-2, 105-KW Horizontal Control Rod Storage Cave	Phase 2	RTD	N/A	Closed			DOE/RL-2011-35			
120-KE-1	120-KE-1, 183-KE Filter Waste Facility Dry Well, 100-KE-1, 183-KE Filter Water Facility, 183-KE Acid Neutralization Pit, 100-K-26	Phase 2	RTD	N/A	Not Started						
120-KE-2	120-KE-2, 183-KE Filter Waste Facility French Drain, 100-KE-2, 183 KE Filter Water Facility	Phase 2	RTD	N/A	Not Started						
120-KE-3	120-KE-3, 100-KE-3, 183-KE Filter Water Facility Trench	Phase 2	CSNA	RA-00134	Not Started						
120-KE-4	120-KE-4, 183-KE1 Sulfuric Acid Storage Tank	Phase 2	RTD	RA-00134	Not Started						
120-KE-5	120-KE-5, 183-KE2 Sulfuric Acid Storage Tank	Phase 2	RTD	RA-00134	Not Started						
120-KE-6	120-KE-6, 183-KE Sodium Dichromate Tank	Phase 2	CSNA	RA-00134	Not Started						
120-KE-8	120-KE-8, 165-KE Brine Pit, 165-KE Brine Mixing Tank	Phase 2	CSNA	RA-00141	Not Started						
120-KE-9	120-KE-9, 183-KE Brine Pit, 183-KE Salt Dissolving Pits and Brine Pump Pit	Phase 2	RTD	N/A	Not Started						
120-KW-6	120-KW-6, 165-KW Brine Pit, 165-KW Brine Mixing Tank	Phase 2	CSNA	RA-00141	Not Started						
126-KE-2	126-KE-2, 183-KE Liquid Alum Storage Tank #2	Phase 2	RTD	N/A	Not Started						
130-K-2	130-K-2, 1717-K Waste Oil Storage Tank	Phase 2	CSNA	RA-00150	Not Started						
130-KE-2	130-KE-2, 166-KE Oil Storage Tank	Phase 2	CSNA	RA-00136	Not Started						
130-KW-1	130-KW-1, 105-KW Emergency Diesel Oil Storage Tank, 130-KW-1A/130-KW-1B Tanks, 105-KW Emergency Diesel Fuel Tank	Phase 2	CSNA	RA-00137	Not Started						
130-KW-2	130-KW-2, 166-KW Oil Storage Tank	Phase 2	CSNA	RA-00136	Not Started						
132-KW-1	132-KW-1, 116-KW Reactor Exhaust Stack	Phase 2	CSNA	RA-00136	Not Started						
1607-K1	1607-K1, 1607-K1 Septic Tank and Associated Drain Field, 124-K-1, 1607-K1 Sanitary Sewer System, 1607-K1 Septic Tank	Phase 2	RTD	RA-00135	Not Started						
1607-K2	1607-K2, 1607-K2 Septic Tank and Associated Drain Field, 124-KE-1, 1607-K2 Sanitary Sewer System, 1607-K2 Septic Tank	Phase 2	RTD	RA-00135	Not Started						
1607-K4	1607-K4, 1607-K4 Septic Tank and Associated Drain Field, 124-K-2, 1607-K4 Sanitary Sewer System, 1607-K4 Septic Tank	Phase 2	RTD	N/A	Closed						
1607-K5	1607-K5, 1607-K5 Septic Tank and Associated Drain Field, 124-KE-2, 1607-K5 Sanitary Sewer System, 1607-K5 Septic Tank	Phase 2	RTD	RA-00135	Not Started						
1607-K6	1607-K6, 1607-K6 Septic Tank and Associated Drain Field, 124-KW-1, 1607-K6 Sanitary Sewer System, 1607-K6 Septic Tank	Phase 2	RTD	RA-00135	Not Started						

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100-K-35	100-K-35, 183-KE Acid Neutralization Pit	Phase 3	CSNA	RA-00139	Not Started						
100-K-43	100-K-43, KW Basin, 105-KW Fuel Storage Basin, K West Basin, Irradiated Fissile Material Storage	Phase 3	RTD	N/A	Not Started						
100-K-47	100-K-47, 1904-K Process Sewer	Phase 3	RTD	N/A	Not Started						
100-K-56	100-K-56, 100-KE Reactor Cooling Water Effluent Underground Pipelines (See Subsites)	Phase 3	RTD	N/A	Not Started						
100-K-55	100-K-55, 100-KW Reactor Cooling Water Effluent Underground Pipelines (See Subsites)	Phase 3	RTD	N/A	Not Started						
100-K-72	100-K-72, 105-KW Pump Gallery and Catch Tank, D Sump	Phase 3	RTD	N/A	Not Started						
100-K-73	100-K-73, 105-KW Collection Box	Phase 3	RTD	N/A	Not Started						
100-K-74	100-K-74, 105-KW Waste Storage Tank, Holding Tank	Phase 3	RTD	N/A	Not Started						
100-K-75	100-K-75, 105-KW Sump C	Phase 3	RTD	N/A	Not Started						
100-K-80	100-K-80, 100K River Effluent Pipeline, 100K River Line, 116-K-3 Outfall Structure, 1908 K Outfall	Phase 3	RTD	N/A	Not Started						
100-K-81	100-K-81, Contamination Area West of 116-K-3	Phase 3	RTD	N/A	Not Started						
100-K-82	100-K-82, 105 -KW Fuel Storage Basin Leak	Phase 3	CSNA	RA-00143	Not Started						
116-K-3	116-K-3, 1904-K Outfall Structure, 1908-K Outfall Structure	Phase 3	RTD	N/A	Not Started						
116-KE-2	116-KE-2, 1706-KER Waste Crib	Phase 3	RTD	N/A	Not Started						
116-KW-2	116-KW-2, 105-KW Storage Basin French Drain, 105-KW Basin Reverse Well, 105-KW Fuel Storage Basin Sub-Basin Drainage Disposal System Crib	Phase 3	RTD	N/A	Not Started						
118-KW-1	118-KW-1, 105-KW Reactor Building	Phase 3	CSNA	RA-00136	Not Started						
100-K-10	100-K-10, 118-KE-2 French Drain (South), 104-K Dry Well	Rejected/Not Accepted in WIDS	Rejected								
100-K-11	100-K-11, 118-KW-2 French Drain (North), 104-K Dry Well	Rejected/Not Accepted in WIDS	Rejected								
100-K-12	100-K-12, 118-KW-2 French Drain (South), 104-K Dry Well	Rejected/Not Accepted in WIDS	Rejected								
100-K-15	100-K-15, 183-KW Liquid Alum Storage Tank (West)	Rejected/Not Accepted in WIDS	Rejected								
100-K-16	100-K-16, 183-KW Liquid Alum Storage Tank (East)	Rejected/Not Accepted in WIDS	Rejected								
100-K-20	100-K-20, 183-KW Sodium Silicate Storage Tank (West)	Rejected/Not Accepted in WIDS	Rejected								
100-K-21	100-K-21, 183-KW Sodium Silicate Storage Tank (East)	Rejected/Not Accepted in WIDS	Rejected								
100-K-22	100-K-22, 183-KE Sodium Silicate Storage Tank (West)	Rejected/Not Accepted in WIDS	Rejected								
100-K-23	100-K-23, 183-KE Sodium Silicate Storage Tank (East)	Rejected/Not Accepted in WIDS	Rejected								
100-K-24	100-K-24, 183-KW Bauxite Tank	Rejected/Not Accepted in WIDS	Rejected								
100-K-28	100-K-28, 183-KE Bauxite Tank	Rejected/Not Accepted in WIDS	Rejected								
100-K-44	100-K-44,Grounds Surrounding Deactivated Areas, Exclusion Area	Rejected/Not Accepted in WIDS	Rejected								

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100-K-51	100-K-51, 105-KE 90-Day Waste Accumulation Area, 100K 90-Day Waste Storage Facility	Rejected/Not Accepted in WIDS	Rejected								
100-K-52	100-K-52, 1706-KE Wet Fish Studies Laboratory	Rejected/Not Accepted in WIDS	Rejected								
100-K-58	100-K-58, 100-KE Service Water Pipelines, 100-KE Clean Water Pipelines	Rejected/Not Accepted in WIDS	Rejected								
100-K-59	100-K-59, 100-KW Service Water Pipelines, 100-KW Clean Water Pipelines	Rejected/Not Accepted in WIDS	Rejected								
100-K-7	100-K-7, 165-KE Ethylene Glycol Tanks, 165-KE-E and 165-KE-W	Rejected/Not Accepted in WIDS	Rejected								
100-K-76	100-K-76, 105-KW Unplanned Release Discovered Near 130-KW-1 Emergency Diesel Tank	Rejected/Not Accepted in WIDS	Rejected								
100-K-8	100-K-8, 165-KW Ethylene Glycol Tanks, 165-KW-E and 165-KW-W	Rejected/Not Accepted in WIDS	Rejected								
100-K-9	100-K-9, 118-KE-2 French Drain (North), 104-K Dry Well	Rejected/Not Accepted in WIDS	Rejected								
126-KE-3	126-KE-3, 183-KE Liquid Alum Storage Tank #1	Rejected/Not Accepted in WIDS	Rejected								
130-K-1	130-K-1, 1717-K Gasoline Storage Tank	Rejected/Not Accepted in WIDS	Rejected								
130-K-3	130-K-3, 182-K Emergency Diesel Oil Storage Tank, 130-K-3A and 130-K-3B	Rejected/Not Accepted in WIDS	Rejected								