# Appendix B

# Previous Investigations Summary and Annotated Bibliography

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| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7661 | | 100-K | 100-KR-2 | 1995 JAN | SH WISNESS DOE-RL | TRANSMITTAL OF APPROACH AND PLAN FOR CLEANUP ACTIONS IN 100-KR-2 OU AND ACCOMPANYING FACT SHEET FOR REVIEW AND COMMENT | http://www5.hanford.gov/arpir/?content=findpage&AKey=D196036783 | Very brief Fact Sheet the has three purposes: to announce the availability of a Focus Package that describes a new approach and activities needed to reach a decision on cleanup actions for waste sites in the 100-KR-2 Operable Unit, to summarize the new approach, and to invite public participation into the planning process. | D | | | | NO | YES |
| 16136 | | 100 AREA | 100-HR-3 100-KR-4 | 1995 JUN | RK ERICKSON DOE-RL | RESPONSES TO COMMENTS ON FOCUSED FEASIBILITY STUDY AND PROPOSED PLAN FOR 100-KR-4 AND 100-HR-3 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196013675/D196013675_2897_40.pdf | The U.S. Department of Energy, Richland Operations Office responses to the EPA and ECOLOGY comments on the FFS and proposed plans for the 100-HR-3 and 100-KR-4 Operable Units. These responses reflect the proposed strategy presented to EPA and Ecology by Mr. K. Michael Thompson, as well as the additional commitments made at the Hanford Advisory Board (HAB) meeting held in Portland, Oregon, on June 12, 1995. | D,P | | Y | | NO | NO |
| 18195 | | 100 AREAS | 100-HR-3 100-KR-4 | 1995 JUL | JK ERICKSON DOE-RL | REVISED RESPONSES TO COMMENTS ON FOCUSED FEASIBILITY STUDY AND PROPOSED PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196007389/D196007389_2477.pdf | Revisions to the focused feasibility study (FFS) reports and proposed plans for the 100-HR-3 and 100-KR-4 Operable Units will be made to reflect the newly developed strategy for these operable units and to respond to review comments from the EPA and Ecology. This strategy reflects some of the issues raised in the regulatory agency comments, as well as some other significant changes. The following list summarizes the major elements of the strategy, proposed plans to address them, and how RL proposes to modify the FFSs. | D | Z,E | Y,X,P | M | YES | YES |
| 27694 | | 100-K | 100-KR-4 | 1996 FEB | AC TORTOSO DOE-RL | CARBON-14 AND ZINC GROUNDWATER DATA FOR 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0031/D196042490/D196042490_5046_8.pdf | Small document containing the 100-KR-4 OU carbon-14 and zinc concentration data table and figures. The data presented in the attachments have been extracted from the Hanford Environmental Information System. The data are for the time period January 1, 1994, to August 30, 1995. The raw data have been screened to remove results flagged with an "R" (reject) or "U" (undetected) and processed to create consistent units, prior to calculating the summary statistics shown. | D | | Y | | NO | NO |
| 31086 | | 100 AREA | 100-HR-3 100-KR-4 | 1996 MAY | AC TORTOSO DOE-RL | 100-HR-3 AND 100-KR-4 PUMP AND TREAT SYSTEMS CONCEPTUAL PLAN REVIEW MEETING | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0031/D197188946/D197188946_16019_5.pdf | Additional maps, figures, and information at the 100-HR-3 and 100-KR-4 Pump-and-Treat Systems Conceptual Plan Review. | D | G | | | NO | NO |
| 31539 | | 100 AREA | 100-HR-3 100-KR-4 | 1996 JUN | AC TORTOSO DOE-RL | REQUEST FOR REVIEW OF PLANNED ACTIVITIES WITHIN ONE QUARTER MILE OF COLUMBIA RIVER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0030/D197189108/D197189108_16055_8.pdf | Maps showing planned locations of wells and buildings for the ROD for the 100-HR-3 and 100-KR-4 Ous. (letter) | D | T | | | | |
| 32519 | | 100 AREA | 100-HR-3 100-KR-4 | 1996 JUN | AC TORTOSO DOE-RL | TRANSMITTAL OF APPENDIX A DRAFT NUMERICAL MODELING MATERIAL | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0030/D197189100/D197189100_16048_22.pdf | To support the interim action design process, numerical groundwater models were developed for each of the three areas of the interim action; one each of the 100-H and 100-D Areas of the 100-HR-3 OU, and one of the 100-KR-4 OU. The numerical models were used to help determine the placement of new wells, and the use of existing wells to support the interim action. The numerical modeling was also used to estimate extraction and injection rates for interim action design purposes. | D | G | | A,M | NO | NO |
| 34907 | | 100-K | 100-KR-4 | 1996 JUL | AC TORTOSO DOE-RL | RESPONSE TO COMMENTS ON 100-KR-4 PUMP AND TREAT PROJECT | http://www5.hanford.gov/arpir/?content=findpage&AKey=D196154132 | DOE-RL response to The Nez Perce Tribe (NPT) comments concerning THE 100-KR-4 PUMP-AND-TREAT PROJECT | | | Y,P | M | NO | NO |
| 40549 | | 100-K | 100-KR-4 | 1996 DEC | AC TORTOSO DOE-RL | TRANSMITTAL OF NPL AGREEMENT FORM FOR MODIFICATIONS TO GROUNDWATER SAMPLING AND ANALYSIS SCHEDULES FOR 100-KR-4 OU GROUNDWATER SAMPLING PROJECT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197142751/D197142751_15561_7.pdf | The NPL Agreement Form, Control Number 108, for the Modification to the Groundwater Sampling and Analysis Schedules for the 100-KR-4 OU Groundwater Sampling Project. | D | | | | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44060 | | 100 AREA | 100 AREA | 1997 MAR | AC TORTOSO DOE-RL | REQUEST FOR REVIEW OF PLANNED ACTIVITIES WITHIN ONE QUARTER MILE OF COLUMBIA RIVER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0028/D197187517/D197187517_15934_181.pdf | The Record of Decision (ROD), for the 100-HR-3 and 100-KR-4 OUs specifying pump-and treat as the interim action to remove chromium from the groundwater discharging into the Columbia River. This decision document presents the selected interim remedial actions for portions of the 100 Area. | D,H,P | G,Z,E | Y,S,X | A,M | YES | YES |
| 45578 | Rev 0 | 100-H 100-K | 100-HR-4 100-KR-4 | 1997 April | AC TORTOSO DOE-RL | INTERIM ACTION MONITORING PLAN FOR 100-HR-3 AND 100-KR-4 OU DOE/RL 96-90 REV 000 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D197234568 | This is a data quaility objective (DQO) summary report for I252 100-HR-3 and 100-KR-4 interim action compliance monitoring. Outlines scope, process knowledge, participants, and issues. Chromium is the primary contaminant discussed. | D | | Y | | NO | NO |
| 65623 | n/a | 100-K | 100-KR-2 | 6/20/2005 | DD OPALSKI, KA KLEIN, M WILSON | INTERIM REMEDIAL ACTION RECORD OF DECISION AMENDMENT DOE 100-K AREA K-BASINS HANFORD SITE 100 AREA BENTON COUNTY WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0012/DA450992/DA450992_40026_33.pdf | This document presents an amendment to the Record of Decision (ROD) for the K Basins at the Hanford Site. | D, H | | S | | YES | YES |
| 74177 | | 100 AREA | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 1999 OCT | DOE-RL | REQUESTED TRITIUM DATA AND MAPS FROM JUDIT GERMAN-HEINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0024/D199159235/D199159235_20821_48.pdf | This letter is in response to a Nez Perce Tribe email requesting Hanford Site groundwater data and maps showing the distribution of tritium. Enclosed are the requested maps showing the distribution of tritium in the groundwater through time for the Hanford Site. | | | Y | | NO | NO |
| 90577 | | 100 AREA | 100 AREA | 2001 JUL | VR DRONEN BHI | ERRATA TO DOE/RL 98-18 100 AREA BURIAL GROUNDS FOCUSED FEASIBILITY STUDY REV 001 | http://www5.hanford.gov/arpir/?content=detail&AKey=D8848948 | This letter represents an errata to the submittal of DOE/RL-98-18, 100 Area Burial Grounds Focused Feasibility Study, Revision 1. One page of Table A-2 Categorization of Burial Grounds by Size and Location was inadvertently missing from the document. As a result, these revised pages A-12 through A-25, should be added to DOE/RL-98-18. | D | | Y | | NO | NO |
| 108901 | | 100- K | 100-K | 2003 JUN | | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE ON JUNE 26 2003 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2495828 | This report gives a review of the last (UMM) Unit Managers Meeting concerning the general status of 100 areas; the remedial and disposal activities of ground water. | H | Z,E,T | S,X,P | | No | NO |
| 109385 | | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2003 JULY | A TORTOSO, DC SMITH | Meeting Minutes Unit Managers Meeting 100 Area Remedial Action Unit Source on July 24 2003 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2984324 | The Meeting Minutes Unit Managers Meeting briefly reviews the previous minutes and gives updates on the status of groundwater remediation treatment of the 100 Areas. | H,P | Z | Y.S.X,P | A,M | No | NO |
| 109829 | | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2003 SEP | A TORTOSO, DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU AUGUST 28 2003 | http://www5.hanford.gov/arpir/?content=detail&AKey=D2984371 | The Meeting Minutes Unit Managers Meeting briefly reviews the previous minutes and gives updates on the status of groundwater remediation treatment of the 100 Areas. | | Z | Y,S,X,P | M | No | NO |
| 110816 | | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2004 JAN | A TORTOSO, DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU DECEMBER 4 2003 | http://www5.hanford.gov/arpir/?content=detail&AKey=D4174013 | This report gives a review of the last (UMM) Unit Managers Meeting and the general status concerning the 100 areas; the remedial and disposal activities of ground water. | D,H,P | Z,E,T | Y,S,P | A | Yes | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 111221 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2003 DEC | A TORTOSO,<br>DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU SEPTEMBER 25 2003 | http://www5.hanford.gov/arpir/?content=detail&AKey=D3766836 | This report gives a review of the last (UMM) Unit Managers Meeting and the general status concerning the 100 areas; the remedial and disposal activities of ground water. | D,P | | Y<S,P | A,M | Yes | NO |
| 112384 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2004 FEB | A TORTOSO,<br>DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU JANUARY 22 2004 | http://www5.hanford.gov/arpir/?content=detail&AKey=D4261069 | This report gives a review of the last (UMM) Unit Managers Meeting and the general status concerning the 100 areas; the remedial and disposal activities of ground water. Tritium in the 100-K area was reported on and the evolving issues surrounding it. | D,H,P | Z,T | Y,S,X,P, | A | Yes | NO |
| 114449 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-IU-2<br>100-IU-6 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-IU-2<br>100-IU-6 | 2004 FEB | AC TORTOSO,<br>DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU FEBRUARY 26 2004 | http://www5.hanford.gov/arpir/?content=detail&AKey=D5382792 | This report gives a review of the last (UMM) Unit Managers Meeting and the general status concerning the 100 areas; the remedial and disposal activities of ground water. 100-K General Status: Mark Buckmaster provided a general status of remediation activities at 100-K. Remediation continues at the 116-KE-4 Retention Basin and effluent pipelines. Overburden removal activities were initiated on the 116-K-2 Mile Long Trench. Remediation activities were completed on the Acid Tank Saddles, 128-K-1 Burn Site and 100-K-29 sandblast Sites. Excavation activities were completed on the 116-KE-1 and 116-KW-1 Condensate Cribs. Backfill activities will be completed the first week in March. | H,P | Z,T | Y,S,X,P | A,M | Yes | NO |
| 114763 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2004 JUN | TORTOSO,<br>DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU MARCH 25 2004 | http://www5.hanford.gov/arpir/?content=detail&AKey=D5384556 | This report gives a review of the last (UMM) Unit Managers Meeting and the general status concerning the 100 areas remediation activities. Minutes are comprised of the following:<br>1. Attendance Sheet, 2. Agenda and February Action Items, 3. March 100 Area Meeting Minutes and New Action Items, 4. WIDS Site CVP Closeout Summary Table, 5. Backfill Concurrence for Septic System, 6. Suggested Path for Addressing Interim Safe Storage of the 105-N, Reactor/109-N Facility into the CERCLA Process, 7. Groundwater Remedial Actions, 8. Pipeline Drawing, 9 - K- Basin Groundwater Monitoring. | D,P | Z | S,P | A,M | Yes | NO |
| 119468 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2005 JAN | AC TORTOSO,<br>DC SMITH | MEETING MINUTES UNIT MANAGERS MEETING 100 AREA REMEDIAL ACTION UNIT SOURCE OU JUNE 24 2004 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D7508481 | This report gives the status of the remediation and treatment of the 100 K areas as well as a review of the last (UMM) Unit Managers' Meeting Minutes . | D,P | Z,T | S,X,P | A | Yes | NO |
| 9208903 | | 100-K | 100-KR-4 | 1992 DEC | PT DAY<br>EPA | 100-KE FUEL ROD BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0036/D196101848/D196101848_9505_6.pdf | The U.S. Environmental Protection Agency (EPA) wrote this letter to notify the U.S. Department of Energy (DOE) of its strong interest in the large quantity of contamination in the 100-KE fuel rod basin. The high tritium concentrations in the basin and adjacent wells suggests a leak to the groundwater from the basin. | | | Y,X | A | NO | NO |
| 9302179 | | 100-K | 100-KR-2<br>100-KR-4 | 1993 MAR | PT DAY<br>EPA | SCHEDULE FOR ENCAPSULATION ACTIVITIES AT 105-KE FUEL ROD STORAGE BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0037/D196126251/D196126251_12326_4.pdf | This letter highlights concern for timely initiation and completion of contaminant containment activities in the 105-KE fuel rod storage basin, and requests that the DOE work to establish milestones on these activities under the Hanford Federal Facilities Agreement and Consent Order. | P | Z | Y,X | | NO | NO |
| 9652889 | | 100-K | 100-KR-2 | 1996 AUG | EW GERBER,<br>JE TRUAX<br>WHC | EVALUATION OF STORAGE ALTERNATIVES FOR 100-K BASIN SLUDGE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199111396/D199111396_19554_149.pdf | The high-level scoping study was conducted by TWRS as a workshop on May 10, 1996, and May 13, 1996. The workshop findings were presented at a briefing on May 15, 1996. As a follow up action from the workshop, a limited evaluation of adding K Basins sludge to Neutralized Current Acid Waste (NCAW) for the TWRS Privatization Phase 1 vitrification feed was completed. The evaluation was limited to comparison of a blended K Basins sludge/NCAW stream to the Expanded Design Basis. for High-Level Waste (HLW) Processing (Envelope D) using readily available data. | D,P | | Y | A | NO | YES |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0061817 | | 100-KR-2 | 100-KR-2 | 2004 MAY | NA-3,<br>NA-1,<br>NA-2 | FACT SHEET PROPOSED CHANGES TO K BASIN SLUDGE AND K BASIN CLEANUP MILESTONES M-34 AND M-16 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D0485 80 | This is a fact sheet with proposed changes to the K-Basin Sludge and K- Basin Cleanup Milestones produced by the Tri-Party Agencies. They were asking for public feedback from June 1 through July 16, 2004. Some of the milestones outlined in theN1-34 and M-16 draft change packages include:<br>• Initiate containerization of K-East sludge by October 31, 2004; complete by March 1, 2005<br>• Complete containercrization of K-West sludge by June 30. 2006<br>• Initiate treatment of sludge by February 28, 2007<br>• Complete treatment of sludge by October 31, 2007<br>• Initiate soil cleanup at K-East Basin by April 330, 2007<br>• Complete removal of the K-Basins and their content by March 31, 2009 | D,HP | | | | No | NO |
| DOE/RL-2008-05 | REV 0 | 100 AREAS | 100-HR-3 100-KR-4 100-NR-2 | 2008 JUN | MO PIEPHO<br>JL SMOOT<br>DOE-RL | CALENDAR YEAR CY 2007 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT OU PUMP AND TREAT OPERATION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0044/0807090160/0078379%20-%20[0807090160].PDF | This annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the I100-HR- 3, 1 00-KR-4, and 1 00-NR-2 Ous. This report is organized into three major sections, each presenting the annual summary and performance evaluation for the three respective OUs. Section 2.0 discusses the 1 00-HR-3 OU, Section 3.0 discusses the 100-KR-4 OU and KW Reactor, and Section 4.0 discusses the 100-NR-2 OU. An evaluation of costs is presented in Section 5.0, and the references cited in this report are included as Section 6.0. | D,P | Z | Y | M | NO | NO |
| 0-043753 | | 100 AREA | 100-HR-3 100-KR-4 | 1996 APR | C CLARKE,<br>JD WAGONER,<br>MA WILSON<br>EPA,<br>DOE-RL,<br>ECOLOGY | DECLARATION OF RECORD OF DECISION FOR 100-HR-3 AND 100-KR-4 OU USDOE HANFORD 100 AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D196097243/D196097243_9068_69.pdf | This decision document presents the selected interim remedial actions for 100-KR-4 and 100-HR-3. The selected remedy is an interim action that involves removing hexavalent chromium from groundwater that discharges into the Columbia River. | D,H,P | G,Z,E | Y,S,X,P | A | YES | YES |
| 0061816 | | 100-KR-2 | 100-KR-2 | 2004 APR | NA-1,<br>NA-2,<br>NA-3 | PROPOSED TPA MODIFICATIONS FOR SPENT NUCLEAR FUEL MILESTONES M-34 M-16 | http://www5.hanford.gov/arpir/?content=detail&AKey=D5048564 | The Tri-Party agencies conducted a series of negotiations to define a new strategy for the completion of cleanup activities at the K Basins. The draft change packages negotiated by the agencies revise milestone schedules that accelerate cleanup of the K-East and K-West Basins and treatment and disposal of the basin sludge. The schedule for the retrieval of sludge is slightly delayed from its original date; however, there are new milestones that require the sludge be containerized until retrieved and treated for final disposal at the Waste Isolation Pilot Plant in New Mexico. This interim containerization of the sludge in the basins provides additional environmental protection. In addition, new milestones create schedules for soil cleanup after the Tri-Party Agreement basins are removed. | D,H,P | | | | No | NO |
| 00-ERD-140 | | 100 AREA | 116-B-7, 116-D-5 116-17-8, 116-H-5, 116-K-3, 116-DR-5, 116-F-16 132-C-2 | 2000 JUL | OC ROBERTSON<br>DOE-RL | REMOVAL OF HANFORD REACTORS OUTFALL STRUCTURES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0022/D8406776/D8406776_27277_6.pdf | This memo serves as notification by the U.S. Department of Energy, Richland Operation Office (RL) to the appropriate agencies of upcoming remedial action projects that include the removal of the Hanford reactor outfall structures. | D | E | | | NO | NO |
| 00-SFO-135 | | 100-K | | 2000 AUG | PG LOSCOE<br>DOE-RL | TRANSMITTAL OF FINAL LABORATORY DATA REPORTS FOR TOXICITY CHARACTERISTIC LEACHING PROCEDURE ANALYSES PERFORMED ON 100-KE BASIN SLUDGE SAMPLES [SECTION 3 OF 3] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D8393027 | This report and data package describes the testing and results for the expedited toxicity characterization leaching procedure (TCLP) analyses on K-East basin floor and pit sludges. The work involved three major tasks: 1) the building of the K-East composite sludge sample, 2) the performance of the TCLP extraction on the composite and the analysis of the TCLP extract for the RCRA metals and 3) the determination of the total metals in the K-East sludge composite. | D,P | Z | Y | A | NO | NO |
| 02-ERD-003 | | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2001 OCT | JP SANDS<br>DOE-RL | TRANSMITTAL OF DESIGN DOCUMENTS FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT SYSTEM UPGRADES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0020/D8868782/D8868782_29499_29.pdf | These documents provide information related to the completed design for the enhancements to the 100-HR-3 and 100-KR-4 pump and treat system as specified in Action Item # 100-1 of the Hanford Site First Five Year Review Report prepared by the U.S. Environmental Protection Agency (EPA). | D | | P | | NO | NO |
| 02-ERD-0112 | | 100-K | 100-KR-2 | 2002 AUG | KD BAZZELL<br>DOE-RL | POTENTIAL EFFECTS TO BALD EAGLES ROOSTING IN VICINITY OF HANFORD SITE 100-K REACTOR AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9125332/D9125332_31560_20.pdf | A series of chemical and radioactive waste sites are scheduled for Remedial Action within the 100-K Reactor Area facility boundaries. This action is scheduled to occur during the time when bald eagles are known to frequent the area (November - March). One of these waste sites, the 116-KW-3 Retention Basin, is located within 400-meters of a known major roosting area for the bald eagle. This letter is to serve as informal consultation under section 7 of the End angered Species Act regarding potential effects from this effort to the federally threatened bald eagle. | D,H | C,E,T | | A | YES | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02-RCA-0493 | | 100-K | 100-KR-2 | 2002 AUG | SA SIERACKI DOE-RL | CONTRACT DE-AC06-964L13200 EPA APPROVAL OF 100-K EAST BASIN SLUDGE AND WATER SYSTEM RADIOACTIVE AIR MONITORING PLAN REV 003 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9136650/D9136650_31653_25.pdf | The purpose of the K-East (KE) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KE Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. The SWS will provide a system to retrieve and contain the identified as-settled sludge volume in the KE Basin. | D,P | | Y,X | M | NO | NO |
| 02-SFO-019 | | 100-K | 100-KR-2 | 2001 NOV | SJ VEITENHEIMER DOE-RL | REVISED WASTE MANAGEMENT PLAN FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0020/D8918764/D8918764_29805_8.pdf | The purpose of the revision is to expand CERCLA Waste Staging Areas at the 100 K Basins. Additionally, a clarification has been made to identify that the waste to be staged may also include waste generated from the demolition activities external to the basins that are covered under the 100 Area Remaining Sites Record of Decision. | D,P | | Y | | NO | NO |
| 03-ERD-0087 | | 100-K | 100-KR-1 | 2003 MAR | DT EVANS | REVIEW OF DRAFT TEST PIT PLAN FOR 116-K-1 MILE LONG TRENCH | http://www5.hanford.gov/arpir/?content=findpage&AKey=D1314936 | A short drafted a plan for the excavation of a series of test pits in the vicinity of the 116-K-1 Mile Long Trench, created As discussed during the February 3, 2003, workshop on potentially contaminated human remains. | D,H | | Y | M | NO | NO |
| 03-RCA-0361 | | K Basin | K Basin | 2003 AUG | | NOTICE OF CONSTRUCTION PERMIT REVISION FOR 105-KW BASIN FUEL REMOVAL NOC | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2651772 | The purpose of this NOC revision is to: 1) provide a general description of plastic curtain wall separating the transfer area (high bay) from the basin (low bay) at 105KW for occupational protection and 2) describe a revised sampling and testing schedule for emissions from the basin due to separation of air space of transfer bay from the main basin.. There is no change in potential to emit from the facility. | D,H, P | | S | A | No | NO |
| 04-AMCP-0298 | | 100-KR-2 | 100-KR-2 | 2004 JUN | KA KLEIN | CERCLA TIME CRITICAL REMOVAL ACTION MEMORANDUM FOR TREATMENT AND DISPOSAL OF SLUDGE FROM 105-KE BASIN NORTH LOADOUT PIT | http://www5.hanford.gov/arpir/?content=detail&AKey=D5179204 | The purpose of this Action Memorandum is to document approval of a Time Critical Removal Action (TCRA) for treatment and disposal of sludge from the 105-K East Basin North Loadout Pit (NLOP) located at the 100-KR-2 Operable Unit at the Hanford Site, Benton County, Washington.<br><br>There is an existing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) interim action Record of Decision (ROD) issued April 1999 (EPA/541/R-99/059)that directs the removal and transport of the sludge from the K Basins to Hanford's 200 Area where it would await future treatment. This TCRA requires the sludge from the NLOP to be treated to make the sludge safer to temporarily store at Hanford rather than be placed into extended storage in its current less stable form. This TCRA authorizes temporary storage of the treated sludge at Hanford, and disposal of the treated sludge at the Waste Isolation Pilot Plant(WIPP) in New Mexico. This action reduces the potential risks for environmental impacts associated with extended storage as untreated sludge and the additional handling resulting from that storage. | D,H,P | | Y,S,X | A | Yes | Yes |
| 04-AMCP-0333 | | 100-KR-2 | 100-KR-2 | 2004 JUN | | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN RDR RAWP SUPPLEMENT 100-K BASINS DISCHARGE CHUTE GROUTING HNF-20896 REV 000 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D5235359 | This document identifies plans for the deactivation of the 105 K East and K West Discharge Chutes to supplement the remedial actions identified in the Remedial Design Report/Remedial Action Work Plan (RDR/RAWP)for the K Basins Interim Remedial Action (DOE-RL, 2001). The need for further definition of the 105 K Basins deactivation was anticipated in the Record of Decision (ROD)for the K Basins Interim Remedial Action (EPA, 1999a) and in the RDR(RAWP. This supplement to the current RDR/RAWP comprises one of several anticipated supplements to complete the deactivation planning processes. | D,H,P | | Y,S,X | A | N | Yes |
| 04-AMCP-0381 | 0 | 100-KR-2 | 100-KR-2 | 2004 AUG | KA KLEIN | Sampling and Analysis Plan for Waste Disposition of Empty Large Diameter Containers Contaminated with KE Basin North Loadout Pit Sludge | http://www5.hanford.gov/arpir/?content=findpage&AKey=D5652950 | The disposal of a grouted LDC (large diameter container) contaminated with sludge from the NLOP (North Loadout Pit) of the KE Basin requires the collection of data regarding the radionuclides, concentrations of the chemical constituents, and physical characteristics of the waste to demonstrate compliance with ERDF's waste acceptance criteria. A team was assembled and a workshop held to determine the DQOs and put together this sampling and analysis plan (SAP). | D,P | | Y,S | A | No | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07-KBC-0013 | | 100-K | 100-KR-2 | 2006 DEC | DA BROCKMAN DOE-RL | TRANSMITTAL OF K BASIN SLUDGE TREATMENT REMEDIAL DESIGN REPORT REMEDIAL ACTION WORK PLAN GENERAL AND PHASE 3 SLUDGE ASSAY AND SOLIDIFICATION DOE/RL-2006-06 | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0004/da04044611/da04044611_37770_91.pdf | This document identifies the remedial design and remedial action work plan for treatment of sludge removed from the 105-K East (KE) Basin and 105-K West (KW) Basin. It summarizes the overall remedial action approach for the treatment of K Basins sludge and identifies general aspects of the design and remedial action work plan for implementing the design. As the remedial design progresses, additional details of the sludge treatment design will be prepared and submitted for approval in phases. | D,P | | Y | M | YES | NO |
| 08-AMCP-0152 | | 100-K | K BASINS | 2009 MAR | TRI-PARTIES | HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER MODIFICATIONS REGARDING ACCELERATED GROUNDWATER AND SOILS MILESTONES/FY 2009 FUNDING / WASTE MANAGEMENT/K BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0049/0098129/Draft%20TPA%20Change%20Packages.pdf | This document records and highlights changes being made to several documents and plans, specifically regarding milestones, funding, and the K basins. Each milestone change is recorded and lists and charts are included to highlight changes. (SECTION 5/5) | D,P | | Y | | NO | NO |
| 08-AMCP-0152 | | 100-K | 100-KR-2 | 2008 MAR | DA BROCKMAN DOE-RL | TPA MILESTONE M-034-40-T02 COMPLETION [SECTION 2 OF 5] DRAFT 100K AREA CLOSURE SCHEDULE CRITICAL PATH | http://www5.hanford.gov/arpir/?content=findpage&AKey=00099700 | This document records and highlights changes being made to several documents and plans, specifically regarding milestones, funding, and the K basins. Each milestone change is recorded and lists and charts are included to highlight changes. (SECTION 2/5 contains graphed schedule) | D,P | | Y | | NO | NO |
| 08-AMCP-0152 | | 100-K | 100-KR-2 | 2008 MAR | DA BROCKMAN DOE-RL | TPA MILESTONE M-034-40-T02 COMPLETION [SECTION 3 OF 5] DRAFT 100K AREA CLOSURE SCHEDULE WALL CHART | http://www5.hanford.gov/arpir/?content=findpage&AKey=00099699 | This document records and highlights changes being made to several documents and plans, specifically regarding milestones, funding, and the K basins. Each milestone change is recorded and lists and charts are included to highlight changes. (SECTION 3/5 contains graphed schedule) | D,P | | Y | | NO | NO |
| 08-AMCP-0152 | | 100-K | K BASINS | 2008 MAR | DA BROCKMAN DOE-RL | TPA MILESTONE M-034-40-T02 COMPLETION [SECTION 4 OF 5] DRAFT 100K AREA CLOSURE SCHEDULE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0043/00099698/100%20K%20Area%20Closure%20Schedule%20Total%20Project_32708.pdf | This document records and highlights changes being made to several documents and plans, specifically regarding milestones, funding, and the K basins. Each milestone change is recorded and lists and charts are included to highlight changes. (SECTION 4/5 contains graphed schedule) | D,P | | Y | | NO | NO |
| 08-AMCP-0165 | | 100-K | 105-K | 2008 APR | MS MCCORMICK, DOE-RL | 105 K EAST BASIN TRANSITE DEMOLITION STRATEGY WHITE PAPER APRIL 2008 | http://www5.hanford.gov/arpir/?content=detail&AKey=0804220038 | The purpose of this white paper is to describe Fluor Hanford, Inc. (FHI) demolition strategy for the 105 K East Fuel Storage Basin. This strategy is based on the strategy implemented by Washington Closure Hanford LLC (WCH) on the 384 Building. The K East Basin Facility being demolished is approximately 250 feet long by 80 feet wide with a maximum height of approximately 66 feet, and includes several attached structures. | D | | Y | | | |
| 08-KBC-0003 | n/a | 100-K | 100-KR-2 | 2007 Nov 8 | D. A. Brockman | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR K BASINS INTERIM REMEDIAL ACTION 105-K EAST BASIN DEACTIVATION DOE/RL-2007-41 DRAFT B REISSUE | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0001/da06101091/1.pdf | This document identifies the remedial design, design basis and remedial action work plan for the deactivation of the 105-K East Basin (Operable Unit 100-KR-2, Site 100-K-42). The original Remedial Design Report/Remedial Action Work Plan (RDR/RAWP) for the K Basins Interim Remedial Action (DOE-RL, 2001a) did not address deactivation in detail and the need for further definition of the 105-K Basins deactivation was anticipated in the Record of Decision (ROD) for the K Basins Interim Remedial Action (EPA, 1999a) and in the RDR/RAWP. This RDR/RAWP completes the deactivation process for the KE basin interim remedial action and provides details of water removal, debris management and deactivation originally described in the 2001 RDR/RAWP. | D, H | Z | S | | YES | NO |
| 08-KBC-0005 | n/a | 100-K | 100-KR-2 | 12/5/2007 | D. A. Brockman | END POINT CRITERIA FOR K BASINS INTERIM REMEDIAL ACTION HNF-20632 REVISION 1 DRAFT | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0004/da06294766/1.pdf | The purpose of this document is to define the conditions that must exist to consider the K Basins interim remedial action as defined in the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) Record of Decision (ROD) and it's amendments (EPA, 1999b; EPA, 2005) complete in the form of end point criteria. | D,H, | Z | S | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 08-KBC-0009 | REV 1 | 100-K | 100-KR-2 | 2008 JAN | DAVE WATSON, FLUOR | CONTRACT NO DE-AC06-96RL13200 US ENVIRONMENTAL PROTECTION AGENCY (EPA) APPROVAL OF THE END POINT CRITERIA FOR THE K BASINS INTERIM REMEDIAL ACTION HNF-20632 REVISION 1 DRAFT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/0810070789/0078814%20-%20[0810070789].PDF | The purpose of this document is to define the conditions that must exist to consider the K Basins interim remedial action, as defined in the Comprehensive Environental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) and it's amendments complete in the form of end point criteria. For the K Basins interim remedial action, end point criteria also provide the framework to develop data quality objectives (DQOs) and sampling and analysis plans (SANs) for the remedial action, and to develop indirect or direct measurement techniques or processes to demonstrate how the criteria are satisfied. These SAPs will form a part of the project closure documentation which will demonstrate how waste acceptance criteria at applicable waste storage and disposal facilities are met. | D,H,P | | | M | NO | NO |
| 08-KBC-0014 | n/a | 100-K | | 1/17/2008 | D. A. Brockman | SAMPLE AND ANALYSIS PLAN FOR DEMOLITION OF 105-K EAST BASIN AND STRUCTURE D&D-34992 REVISION DRAFT A | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0042/DA06578740/1.PDF | The 105-K East Basin with adjacent outside structures and the Hose-in-Hose sludge transfer system are being demolished and removed for disposal at the Environmental Restoration Disposal Facility (ERDF) as described in DOE/RL-2007-48, Remedial design Report and Remedial Action Work Plan for 100 Area Remaining Sites Interim Remedial Action: 105-K East Basin Demolition. This document describes the waste management processes necessary to dispose at ERDF the waste resulting from demolition of the 105-K East Basin. | D, H, P | Z | S, Y | A | NO | NO |
| 09-AMCP-0225 | REV 1 | 100 AREAS | 100-HR-3 100-KR-4 100-NR-2 | 2009 SEPT | MS MCCORMICK DOE/RL | CALENDAR YEAR 2008 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION DOE/RL-2009-15 REVISION 1 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0052/0095793/09-AMCP-0225_-_Letter_[0909250178]_-_1.pdf | This annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report evaluates the effectiveness and efficiency of the pump-and-treat systems, the impacts on the aquifer, and general aquifer conditions in response to ongoing remedial actions. The reporting period for this report is from January 1, 2008, to December 31, 2008. | D,P | Z | Y | M | NO | NO |
| 09-AMRC-0089 | REV 0 | 100-K | 100-K | 2009 MAR | MS FRENCH DOE-RL | TRANSMITTAL OF THE 100K AREA ORPHAN SITES EVALUATION REPORT OSR-2008-0003 REV 0 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0050/0904080680/[0904080680].PDF | This report summarizes the approach used and results obtained from the orphan sites evaluation (OSE) of the Hanford Site 1 00-K Area that was conducted from January 2007 through August 2008. The OSE process is a systematic approach to review land parcels and identify potential waste sites within the river corridor that are not currently listed in existing Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) decision documents. Evaluations consist of comprehensive reviews of historical documentation consisting of documents, drawings, maps, photographs, etc., field investigations, and geophysical surveys. | D,H | G | | | YES | NO |
| 10-AMCP-0043 | REV 1 | 100-K | 100-KR-4 | 2006 DEC | MS MCCORMICK DOE/RL | THE KW PUMP AND TREAT SYSTEM REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN, SUPPLEMENT TO THE 100-KR-4 GROUNDWATER OPERABLE UNIT INTERIM ACTION DOE/RL-2006-52, REVISION 2 | http://www5.hanford.gov/arpir/?content=detail&AKey=DA04164442 | The construction of the KW pump-and-treat system was addressed in the KWPump-and Treat System Remedial Design and Remedial Action Work Plan, Supplement to the IJ00-KR?-4 Groundwater Operable Unit Interim Action. Revision 2 of this supplement provides additional hydrogeologic data and engineering design requirements to support a 378.5 L/min (100 gallons-per-minute) capacity expansion to the current KW pump-and-treat system. This documents changes to the KW Pump and Treat System doubling the treatment capacity of the system from 100 gallons per minute to 200 gallons per minute. | D,H,P | G,Z,E,T | Y,S,X,P | A,M | YES | NO |
| 10-AMCP-0043 | REV 2 | 100-K | 100-KR-4 | 2009 DEC | MS MCCORMICK DOE/RL | THE KW PUMP AND TREAT SYSTEM REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN, SUPPLEMENT TO THE 100-KR-4 GROUNDWATER OPERABLE UNIT INTERIM ACTION DOE/RL-2006-52, REVISION 2 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0095248/10-AMCP-0043_-_Letter_[0912090611]_-_1.pdf | The construction of the KW pump-and-treat system was addressed in the KWPump-and Treat System Remedial Design and Remedial Action Work Plan, Supplement to the IJ00-KR?-4 Groundwater Operable Unit Interim Action. Revision 2 of this supplement provides additional hydrogeologic data and engineering design requirements to support a 378.5 L/min (100 gallons-per-minute) capacity expansion to the current KW pump-and-treat system. This documents changes to the KW Pump and Treat System doubling the treatment capacity of the system from 100 gallons per minute to 200 gallons per minute. | D,H,P | G,Z,E,T | Y,S,X,P | A,M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-AMCP-0096 | REV 0 | 100 AREA | 100-B/C 100-K 100-D/DR 100-H 100-N 100-F 100-IU-2 100-IU-6 | 2010 MAR | MS MCCORMICK, DOE/RL | INTEGRATED 100 AREA REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN DOE/RL-2008-46 REVISION 0 INTEGRATED 100 AREA REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN ADDENDUM 2 100-KR-1 100-KR-2 AND 100-KR-4 OPERABLE UNITS DOE/RL-2008-46-ADD 2 REVISION 0 AND SAMPLING AND ANALYSIS PLAN FOR THE 100-K DECISION UNIT REMEDIAL INVESTIGATION FEASIBILITY STUDY DOE/RL-2009-41 REVISION 0 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0055/0084719/10-AMCP-0096_-_Letter_[1003090533]_-_1.pdf | This document presents the work plan for a remedial investigation/feasibility study (RT/FS) to support final action remedy selection under the CERCLA for the 100 Area operable units at the Hanford Site. This document explains the RI/FS project back ground and rationale and presents detailed plans for investigation of contaminated DOE sites in the 100 Area. The 100 Area operable units being investigated for the River Corridor or within or near the 100-B/C Area, 100-K Area, 100-D and 100-H Areas, 100-N Area, and the 100-F Area combined with the l00-IU-2/IU-6 Area. | D,H,P | G,Z,C,E,T | Y,S,X,P | A,M | YES | YES |
| 10-AMRC-0063 | | 100-K | 100-KR-2 | 2010 FEB | J OSSO DOE-RL | CONTRACT NO DE-AC06-08RL14788 K BASINS SLUDGE TREATMENT PROJECT (STP) PHASE 1 TECHNOLOGY READINESS ASSESSMENT (TRA) REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0054/0084785/10-AMRC-0063_-_Letter_[1002090708]_-_1.pdf | This report represents a Technology Readiness Assessment of Phase 1 of the K Basins Sludge Treatment Project has concluded that all Critical Technology Elements of the Project are at TRL 4, the level that is appropriate for CD-1. The TRA process consists of : 1. identifying Criticial Techology Elements (CTEs); 2. assessing the Technology Readiness Level (TRL) of each CTE and the overall integrated process; and 3. preparing the TRA report. | D,H,P | Z | Y | M | NO | NO |
| 10-EMD-0017 | | 100-K | 100-K | 2009 DEC | RJ COREY DOE-RL | TRANSMITTAL OF DOE/RL-2009-108 REVISION 0 AMBIENT AIR MONITORING RELOCATION REQUEST FOR THE 100-K AREA NEAR FACILITY MONITORING NETWORK | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0095214/10-EMD-0017_-_Letter_[0912170857]_-_1.pdf | The purpose of this document is to request approval of a change to the diffuse and fugitive environmental monitoring network of near-facility amnbient air monitors located in the 1 00-K Area of the U.S. Department of Energy (DOE) Hanford Site. DOE is requesting Washington State Department of Health (WDOH) approval to change the ambient air monitoring network for minor, and diffuse and fugitive sources at the 100-K Area. | D,P | G | Y,S,X | A,M | NO | NO |
| 11-AMRC-0032 | | 100-K | 105-KB | 2010 NOV | TK TEYNOR, DOE-RL | TRANSMITTAL OF ENGINEERING EVALUATION COST ANALYSIS FOR 105-KE REACTOR DISPOSITION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0062/0084156/11-AMRC-0032_-_Letter_[1011240005]_-_1.pdf | The U.S. Department of Energy Is planning the demolition of the 105-K East (105-KB) nuclear reactor located in the 100-K Area of the Hanford Site. DOE has prepared this engineering valuation/cost analysis (BE/CA) to identify the bjectives of the removal action and analyze the effectiveness, implementability, and estimated cost of the potentially Applicable alternatives to satisfy these objectives. Following the issuance of this BE/CA for public comment and consideration of comments received during the public review period, an Action Memorandum documenting the selected alternative will be issued. | D | E | Y,S,X | A | NO | YES |
| 11-AMRC-0061 | | 100-K | 100-KR-2 | 2011 JAN | DOE-RL, MS FRENCH | TRANSMITTAL OF APPROVED WASTE SITE RECLASSIFICATION FORM AND SUPPORTING DOCUMENTATION FOR THE 100-K-2 118-K-2 SLUDGE BURIAL GROUND REVISION 0 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0063/0084116/11-AMRC-0061_-_Letter_[1101060462]_-_1.pdf | Two test trenches and one test pit were excavated at the 100-K-2, 1 18-K-2 Sludge Burial Ground waste site as part of an investigation to verify that sludge from the 107-KE and 107-KW retention basins was not disposed at the waste site. Field observations during excavation and soil sampling did not indicate the presence of any waste or sludge. Residual concentrations of contaminants of potential concern (COPCs) were all less than remedial action goals (RAGs). Therefore, the 100-K-2 waste site is recommended for reclassification as a Rejected waste site. | D,H | G | Y | | NO | NO |
| 2004-040 | | 100-KR-2 | 100-KR-2 | 2004 JUN | J ZEISLOFT, LE GADBOIS | WASTE SITE RECLASSIFICATION FORM 100-KR-2 100-K-29 | http://www5.hanford.gov/arpir/?content=detail&AKey=D5383620 | The 100-K-29, 183-KE Sandblasting site is located within the 100-KR-2 Operable Unit in the 100-K Area of the Hanford Site. The site consisted of visible red/purple garnet sandblasting material on the surface, located most heavily in three general areas. A phased sampling approach (to determine if remediation is necessary) was implemented on a systematic grid, with focused/judgmental sampling based on visual site evaluation of potential contamination areas. The sampling strategy was based on site photographs, historical sandblasting use information, and suspected waste materials. Confirmatory sampling was conducted during April 2003 at the three general areas with sandblasting materials. Hexavalent chromium was detected at concentrations of up to 8.4 mg/kg, total chromium was detected at concentrations of up to 26.1 mg/kg, lead was detected at concentrations of up to 115 mg/kg, and polychlorinated biphenyls (Aroclor-1254) were detected at concentrations of up to-0.24 mg/kg. These concentrations exceeded action levels, indicating that site remediation was required. | D,H,P | | Y | A | Yes | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005-006 | n/a | 100-K | 100-KR-1 | 6/30/2005 | J ZEISLOFT, LE GADBOIS | WASTE SITE RECLASSIFICATION FORM 116-KE-4 RETENTION BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA696075/DA696075_40537_1.pdf | This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, or no action and authorizing backfill of the site, If appropriate. Final removal from the National Priorities List of no action or closed-out sites will occur at a future date. | D | | | | NO | NO |
| 46857-RPT01 | | 100-KR-2 | 100-KR-2 | 2004 JAN | AJ SCHMIDT, CH DELEGARD, GB MELLINGER, GJ SEVIGNY | EVALUATION AND RECOMMENDATION OF WASTE FORM AND PACKAGING FOR DISPOSITION OF 100-KE BASIN NORTH LOADOUT PIT SLUDGE | http://www5.hanford.gov/arpir/?content=findpage&AKey=D3786738 | This report documents the recommendation by Pacific Northwest National Laboratory (PNNL) to Fluor Hanford regarding the treatment of K East North Loadout Pit (KE NLOP) sludge to produce contact handled transuranic waste (CH-TRU) for disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico. This recommendation is supported, in part, by testing results performed on KE NLOP sludge | D,H,P | | S,X | A | Yes | Yes |
| 61 FR 10736 | | 100-K | 100-KR-2 | 1996 MAR | JD WAGONER DOE-RL | RECORD OF DECISION MANAGEMENT OF SPENT NUCLEAR FUEL FROM 100-K BASIN AT HANFORD SITE RICHLAND WA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199095628/D199095628_19431_9.pdf | DOE has prepared and issued a final environmental impact statement (FEIS) on the ''Management of Spent Nuclear Fuel from the K Basins at the Hanford Site, Richland, Washington." | D | | | | YES | YES |
| 6450-01-P | | 100-KR-2 | 100-KR-2 | 1996 MAR | NA-1 | RECORD OF DECISION MANAGEMENT OF SPENT NUCLEAR FUEL FROM 100-K BASINS AT HANFORD SITE | http://www5.hanford.gov/arpir/?content=detail&AKey=D3408114 | DOE has prepared and issued a final environmental impact statement (FEIS) on the "Management of Spent Nuclear Fuel from the K Basins at the Hanford Site, Richland, Washington"(DOE/EIS-0245F, January 1996). A notice of availability of the FEIS was published in the Federal Register on February 2, 1996(61 FR 3932). The FEIS evaluates the potential environmental impacts of alternatives for managing the spent nuclear fuel (SNP) located in the K-East (KE) and K-West (KW) SNF storage basins at the Hanford Site located in southeastern Washington State. | D,H,P | | Y,S,X | A | Yes | Yes |
| 96-SFD-100 | | 100-K | 105-K | 1996 APR | ED SELLERS, DOE-RL | NOTIFICATION OF POLYCHLORINATED BIPHENYLS (PCBS) FOUND IN THE K EAST (KE) BASIN SLUDGE AT THE HANFORD SITE | http://www5.hanford.gov/arpir/?content=findpage&AKey=0901220538 | DOE-RL is transmitting this letter to formally notify the EPA and Ecology of the finding of PCBs in the sludge material in the KE Spent Nuclear Fuel (SNF) Storage Basin at the Hanford Site. The attachment to this letter provides a summary of existing information obtained on the PCBs in the 105 KE Basin sludge. These samples were originally taken for purposes of characterizing the sludge. | | | Y,X | A | NO | NO |
| 97-007 | n/a | 100-K | 100-KR-2 | 10/1/1997 | GI GOLDBERG, LE GADBOIS | WASTE SITE RECLASSIFICATION FORM 100-K4-2 600-55 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0042/DA06723895/1.PDF | This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, or no action and authorizing backfill of the site, if appropriate. Final removal from the NPL of no action or closed-out sites will occur at a future date. | D | | | | NO | NO |
| 97-012 | n/a | 100-K | 100-KR-2 | 10/1/1997 | GI GOLDBERG, LE GADBOIS | WASTE SITE RECLASSIFICATION FORM 100-KR-2 600-4 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0042/DA06723886/1.PDF | This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, or no action and authorizing backfill of the site, if appropriate. Final removal from the NPL of no action or closed-out sites will occur at a future date. | D | | | | NO | NO |
| 99-EAP-314 | | 100-K | 100-KR-2 | 1999 MAY | GH SANDERS DOE-RL | COMPLETION OF TPA TARGET M-34-05-T01 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199152654/D199152654_20231_33.pdf | The purpose of this report is to describe the quantities, character, and management (e.g., segregation and management subsequent to removal) of 105-K Basins debris managed in calendar year 1998. Where information has changed from that in the 1997 Debris Report, a bar has been placed in the right hand margin. This report applies only to the debris waste currently being generated at the 105-KE and 105-KW Basins, | D | | Y | A | NO | NO |
| AIR 02-1208 | | 100-K | 100-KR-2 | 2002 DEC | AW CONKLIN WDOH | REVIEW OF NOC APPLICATION PERMIT REVISION FORM APPROVED NOVEMBER 13 2002 FOR 105-KE BASIN FUEL REMOVAL DOE/RL 96-101 REV 2B | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9215221/D9215221_32273_9.pdf | The conditions, controls, monitoring requirements and limitations for the project , NOC Application/ Permit Revision Form approved November 13, 2002, for the 105,KE Basin Fuel Removal, are enclosed and replace all previous conditions of approval and will be included in the next issuance of the Hanford Site Air Operating Permit as an Administrative Amendment/Off Permit Change. | D | | Y | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BHI-00161 | REV 0 | 100 AREA | 100-BC-5 100-KR-4 100-HR-3 | 1995 JAN | GR CHIARAMONTE BHI | RISK BASED DECISION ANALYSIS FOR GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196041096/D196041096_4877_15.pdf | This document proposes a streamlined approach and methodology for performing risk assessment in support of interim remedial measure decisions involving the remediation of contaminated groundwater on the Hanford Site. This methodology, referred to as risk-based decision analysis, also supports the specifcation of target cleanup volumes and provides a basis for design and operation of the groundwater remedies. | D,P | Z | Y,S,X | M | YES | YES |
| BHI-00403 | REV 0 | 100-K | 100-KR-4 | 1995 APR | RL BIGGERSTAFF, BHI | DATA VALIDATION SUMMARY REPORT FOR 100-KR-4 ROUND SEVEN GROUNDWATER SAMPLING TASK | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196011995/D196011995_2793_73.pdf | This report presents a summary of data validation results on groundwater samples collected for the 100-KR-4 Round 7 Groundwater Sampling task. The analyses performed for this project consisted of: Metals, General Chemistry, and Radiochemistry. Five sections, including this introduction, comprise this report. Sections 2.0 through 4.0 provide summaries of the validation by analytical fraction. Section 5.0 provides a list of references used to prepare this report and Appendixes A through F to this report include validated data summary and field quality control (QC) result tables. | | | Y | A | NO | NO |
| BHI-00620 | DRAFT A | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 1995 OCT | GW AVOLIO BHI | DESCRIPTION OF WORK AND SAMPLING AND ANALYSIS PLAN FOR PORE WATER SAMPLING AT GROUNDWATER RIVER INTERFACE ADJACENT TO 100-D 100-K AND 100-H REACTOR AREAS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/D195064453/D195064453_58601726_76349_16.pdf | Report describing how The Environmental Restoration Contractor (ERC) SCUBA divers will obtain interstitial pore water samples at a 45.7 cm depth from the Columbia River substrate adjacent to the 100-D, 100-K, and 100-H Reactor Areas. Pore water samples will be analyzed in the laboratory for hexavalent chromium and total chromium. In addition, pore water, seep, and water column samples will be analyzed for hexavalent chromium, nitrate, temperature, dissolved oxygen, pH, hardness, turbidity, and specific conductance using field analysis techniques and methods. | D | Z,E | Y,X,P | M | NO | YES |
| BHI-00620 | DRAFT B | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 1996 JAN | GW AVOLIO BHI | DESCRIPTION OF WORK AND SAMPLING AND ANALYSIS PLAN FOR PORE WATER SAMPLING AT GROUNDWATER RIVER INTERFACE ADJACENT TO 100-D 100-K AND 100-H REACTOR AREAS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0031/D196042526/D196042526_5055_18.pdf | Report describing how The Environmental Restoration Contractor (ERC) SCUBA divers will obtain interstitial pore water samples at a 45.7 cm depth from the Columbia River substrate adjacent to the 100-D, 100-K, and 100-H Reactor Areas. Pore water samples will be analyzed in the laboratory for hexavalent chromium and total chromium. In addition, pore water, seep, and water column samples will be analyzed for hexavalent chromium, nitrate, temperature, dissolved oxygen, pH, hardness, turbidity, and specific conductance using field analysis techniques and methods. | D | Z,E | Y,X,P | M | NO | YES |
| BHI-00620 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 1996 APR | GW AVOLIO BHI | DESCRIPTION OF WORK AND SAMPLING AND ANALYSIS PLAN FOR PORE WATER SAMPLING AT GROUNDWATER RIVER INTERFACE ADJACENT TO 100-D 100-K AND 100-H REACTOR AREAS | http://www5.hanford.gov/arpir/?content=detail&AKey=D197189082 | Report describing how The Environmental Restoration Contractor (ERC) SCUBA divers will obtain interstitial pore water samples at a 45.7 cm depth from the Columbia River substrate adjacent to the 100-D, 100-K, and 100-H Reactor Areas. Pore water samples will be analyzed in the laboratory for hexavalent chromium and total chromium. In addition, pore water, seep, and water column samples will be analyzed for hexavalent chromium, nitrate, temperature, dissolved oxygen, pH, hardness, turbidity, and specific conductance using field analysis techniques and methods. | D | Z,E | Y,X,P | M | NO | YES |
| BHI-00765 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 | 1996 MAY | E LAU, JN WINTERS BHI | 100-HR-3 AND 100-KR-4 INTERIM REMEDIAL MEASURES PUMP AND TREAT ACQUISITION AND DESIGN STRATEGY PLAN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0031/D197188944/D197188944_16018_24.pdf | This document describes a plan for the acquisition/design for the 100-HR-3 and 100-KR-4 groundwater pump-and-treat systems. These pump-and-treat systems are the proposed plan (PP) for the interim remedial measure (IRM) at the 100-HR-3 AND 100-KR-4 Operable Units. | D | | | | NO | NO |
| BHI-00770 | DRAFT A | 100-K | 100-KR-4 100-HR-3 | 1996 JUN | WS MCKINLEY BHI | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU INTERIM ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0030/D196147717/D196147717_13408_189.pdf | This document is a combination remedial design report and remedial action work plan for the 100-HR-3 and 100-KR-4 Operable Unit interim actions. Preparation of this document is required by the interim record of decision (interim ROD) issued in April 1996 by the EPA and Ecology. This document describes the design basis, provides a description of the interim action, and identifies how they will meet the requirements set forth in the interim ROD. | D,P | G,Z,T | Y,S,X,P | A,M | YES | YES |
| BHI-00772 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 | 1996 JUN | WS MCKINLEY BHI | DESIGN CRITERIA AND DESIGN BASIS FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT PROJECTS | http://www5.hanford.gov/arpir/?content=detail&AKey=D197189690 | This document describes the project objectives and design criteria to be used for the 100-HR-3 and 100-KR-4 groundwater pump-and-treat design efforts. This document is intended to serve as a vehicle for early documentation and approval of Bechtel Hanford, Inc. (BHI) project objectives and design criteria while the detailed design work progresses concurrently. | D,P | G,Z | Y | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BHI-00874 | REV 1 | 100 AREA | 100-HR-3 100-KR-4 | 1996 JUN | WS MCKINLEY BHI | DESIGN CRITERIA AND DESIGN BASIS FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT PROJECTS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0030/D197189695/D197189695_16100_48.pdf | This document describes the project objectives and design criteria to be used for the 100-HR-3 and 100-KR-4 groundwater pump-and-treat design efforts. This document is intended to serve as a vehicle for early documentation and approval of Bechtel Hanford, Inc. (BHI) project objectives and design criteria while the detailed design work progresses concurrently. | D,P | G,Z | Y | M | NO | NO |
| BHI-00917 | DRAFT A | 100 AREA | 100-HR-3 100-KR-4 | 1996 AUG | SG WEISS BHI | MITIGATION ACTION PLAN FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT PROJECT | http://www5.hanford.gov/arpir/?content=detail&AKey=D197189320 | This pump and treat project involves drilling 22 wells, improving access roads to existing and new wells, laying connecting pipes, and constructing groundwater treatment facilities in the 100-KR-4 and 100-HR-3 OUS. This Mitigation refers to a series of prioritized actions designed to minimize or lessen potential project impacts on cultural or natural resources. | D,H | E | | A | YES | YES |
| BHI-01428 | REV 0 | 100 AREA | 100-BC-5 100-KR-4 100-HR-3 100-FR-3 | 1996 SEPT | RE PETERSON BHI | CONCEPTUAL SITE MODELS FOR GROUNDWATER CONTAMINATION AT 100-BC-5 100-KR-4 100-HR-3 AND 100-FR-3 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197142704/D197142704_15542_231.pdf | This document presents technical information on groundwater contamination in the 100-BC-5, 100-FR-3, 100-HR-3, and 100-KR-4 groundwater operable units. In this document, the most recent site information has been assembled into conceptual site models (CSM). The objective was to assemble and evaluate the best information available to support a better understanding of the nature, extent, and transport of contamination in each groundwater operable unit. | D,P | G,Z | Y,S,X,P | A,M | YES | NO |
| BHI-01494 | REV 0 | 100-F 100-H 100-K | 100-KR-2 | 2001 JAN | BHI | TRANSFER PLAN FOR POTENTIAL SPENT NUCLEAR FUEL DISCOVERED AT 100-F AND 100-H FUEL STORAGE BASINS FOR RELOCATION TO 100-K BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0021/D8686102/D8686102_28688_28.pdf | This transfer plan defines the process for any SNF that may be discovered during cleanout of the F Reactor and H Reactor FSBs for placement in safe, compliant storage at the 100 Area Interim Storage 105-K Fuel Storage Basins (K Basins). | D,P | | | M | NO | NO |
| BNWL-1515 | REV 0 | 100 AREA | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2001 JUN | RF RAIDL BHI | AQUIFER SAMPLING TUBE DATA SUMMARY FALL 2000 | http://www5.hanford.gov/arpir/?content=detail&AKey=D8796866 | This report summarizes the aquifer sampling tube results for samples collected along the Columbia River shoreline in the fall of 2000. The focus of this effort was to identify the tubes which best represented groundwater quality as compared to those affected by the groundwater/river water mixing zone. | D,H,P | Z | Y,X,P | M | NO | NO |
| BNWL-1515 | | 100 AREA | 100-BC-5 100-HR-3 100-KR-1 100-KR-4 100-NR-1 | 1970 OCT | DG WATSON PNL | FALL CHINOOK SALMON SPAWNING IN COLUMBIA RIVER NEAR HANFORD 1947 1969 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0040/D196044959/D196044959_5101_50.pdf | Description of fall Chinook Salmon spawing and the connection from its population to Hanford Site operations. | D,H,P | E | | A | NO | NO |
| BHI-01737 | rev 0 | 100-K | 100-KR-2 | 2004 Sept | Callison, SW | Cleanup Status Report for the 116-KE-1 and 119-KW-1 Cribs | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/57033376/58700444/D6159303.pdf?nodeid=58703558&vernum=2 | This report summarizes the status of the incomplete remediation of these two cribs, which are considered to be the source of carbon-14 and tritium in groundwater at wells 199-K-106A, 199-K-132A, and 199-K-33. Includes analytical results of contaminated soils at bottom of the 30 ft excavations. Work stopped due to excavation layback requirements impacting adjacent 115- and 117-KE/KW facilities. | | | | | | |
| CHPRC-00434 | REV 0 | 100-K | 100-KE | 2010 JAN | CH2MHILL | WASTE CONTROL PLAN FOR THE 105-KE REACTOR CORE SAMPLING | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0054/0084730/WCP%20Approved.pdf | This waste control plan (WCP) applies to the management of investigation-derived waste generated from the sampling of the 105-KE Reactor Core investigation, as appropriate. Appendix A and B make up the majority of the text. | | Z | Y | | NO | NO |
| CHPRC-0900289 | REV 1 | 100-K | 100-K | 2010 MAY | TK TEYNOR, RA LOBOS DOE/RL, EPA | MEETING MINUTES PROJECT MANAGERS MEETING 100K MAY 13 2010 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0055/1005210588/[1005210588].PDF | Meeting minutes regarding work and project progress in the 100-K Area, including chages to work plans, and an summary report on the 100-K West Bio-infiltration Treatability Test Update | D,P | G | Y | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CVP-2004-00001 | | 100-KR-1 | 100-KR-1 | 2004 APR | NA-1 | CLEANUP VERIFICATION PACKAGE FOR 116-K-1 CRIB | http://www5.hanford.gov/arpir/?content=detail&AKey=D5235655 | The purpose of this cleanup verification package (CVP) is to document that the 116-K-1 Crib (herein referred to as the 116-K-1 site) was remediated in accordance with the Amendment to the Interim Action Record of Decision for the 100-BC-1, 100-DR-1, and 100-HR-1 Operable Units (ROD) (EPA 1997). The ROD provides the U.S. Department of Energy, Richland Operations Office the authority, guidance, and objectives to conduct this remedial action. The preferred remedy specified in the ROD (EPA 1997) and conducted for the 116-K-1 site was excavation and disposal of contaminated materials at the Environmental Restoration Disposal Facility (ERDF). | D,H,P | G,Z,T | Y,S,X | A | Yes | NO |
| CVP-2005-00006 | REV 0 | 100-K | 100-KR-2 | 2005 SEPT | WCH | CLEANUP VERIFICATION PACKAGE FOR 100-K-55:1 AND 100-K-56:1 PIPELINES AND 116-KW-4 AND 116-KE-5 HEAT RECOVERY STATIONS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0045/DA01240104/DA01240104_58784888_79189_210.pdf | This cleanup verification package (CVP) documents that the 100-K-55:1 and 100-K-56:1 pipelines were remediated. This cleanup verification package documents completion of remedial action for the 100-K-55:1 and 100-K-56:1 reactor cooling effluent underground pipelines, as well as for the 116-KW-4 and 116-KE-5 heat recovery stations. The 11 6-KW-4 and 11 6-KE-5 heat recovery stations were co-located and remediated with the 100-K-55:1 and 100-K-56:1 pipelines, respectively. | D | | Y | A,M | YES | NO |
| CVP-2006-00001 | REV 0 | 100-K | 100-KR-1 | 2006 MAR | WCH | CLEANUP VERIFICATION PACKAGE FOR 116-K-2 EFFLUENT TRENCH | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0007/da02350695/da02350695_35233_244.pdf | This cleanup verification package documents completion of remedial action for the 116-K-2 effluent trench, also referred to as the 116-K-2 mile-long trench and the 116-K-2 site. Site excavation and waste disposal are complete, and the exposed surfaces have been sampled and analyzed to verify attainment of the remedial action goals. Results of the sampling, laboratory analyses, and data evaluations for the 116-K-2 site indicate that all remedial action objectives for direct exposure, protection of groundwater, and protection of the Columbia River have been met. | D,P | Z,T | Y,X | A,M | YES | NO |
| CVP-2006-00001 | Rev. 0 | 100-K | 100-K | 2005 Sep | J. M. Capron | Cleanup Verification Package for the 100-K-55:1 and 100-K-56:1 Pipelines and the 116-KW-4 and 116-KE-5 Heat Recovery Stations | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=945313&Row=23 | This cleanup verification package documents completion of remedial action for the 100-K-55:1 and 100-K-56:1 reactor cooling effluent underground pipelines and for the 116-KW-4 and 116-KE-5 heat recovery stations. The 100-K-55 and 100-K-56 sites consisted of those process effluent pipelines that serviced the 105-KW and 105-KE Reactors. | D,P | E,T | Y | A/M | NO | NO |
| DOE/EA-0535 | Rev. 0 | 100-K | 100-K | 2006 Mar | J. M. Capron | Cleanup Verification Package for the 116-K-2 Effluent Trench | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=945303&Row=22 | This cleanup verification package documents completion of remedial action for the 116-K-2 effluent trench, also referred to as the 116-K-2 mile-long trench and the 116-K-2 site. During its period of operation, the 116-K-2 site was used to dispose of cooling water effluent from the 105-KE and 105-KW Reactors by percolation into the soil. This site also received mixed liquid wastes from the 105-KW and 105-KE fuel storage basins, reactor floor drains, and miscellaneous decontamination activities. | D,P | E,T | Y,S | A/M | YES | NO |
| DOE/EA-1030 | n/a | 100-K | 100-KR-2 | 10/1/1991 | DOE-RL | ENVIRONMENTAL ASSESSMENT 105-KE AND 105-KW BASINS FUEL ENCAPSULATION AND REPACKAGING | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0057/E0016948/0016948%20-%20[1007140697].PDF | This Environmental Assessment (EA) describes and evaluates the environmental impacts of the proposed action and alternatives to the proposed action. The proposed action which includes encapsulation of irradiated N Reactor fuel stored in the 105-KE Basin, the repackaging as required of some of the irradiated fuel stored in the 105-KW Basin, and disposal of all the empty canisters resulting from the encapsulation and repackaging work, is designed to provide containment of fuel assemblies whose cladding has been damaged exposing the metallic uranium to basin cooling water. This will be accomplished by ensuring that all fuel assemblies are encapsulated in stainless steel canisters. This proposed action will eliminate both the continuing degradation of fuel with its resultant radionuclide release to the basin cooling water and a suspected aluminum canister corrosion problem, and will allow for a full range of options for final fuel disposition by using canisters with a lid design that prevents GRAFOILO* seal fragments from falling into a process stream. | D, H, P | G, Z, E, C | S, Y | A | NO | Yes |
| DOE/EA--1030 | | 100-K | 100-KR-2 | 1995 MAR | DOE-RL | ENVIRONMENTAL ASSESSMENT CHARACTERIZATION OF STORED DEFENSE PRODUCTION SPENT NUCLEAR FUEL AND ASSOCIATED MATERIALS AT HANFORD SITE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199095650/D199095650_19441_63.pdf | The Department of Energy (DOE) needs to characterize defense production spent nuclear fuel and associated materials (SNFM) stored on the Hanford Site. That characterization would establish a basis for determining the types of interim-storage (b) modes that would be compatible with the SNFM in its present condition and the kind and extent of processing, if any, the SNFM might require to make it compatible with alternative storage modes. Additionally, information obtained as a part of the proposed action would be expected to support future decisions on ultimate disposition of the SNFM. | D,H,P | Z,E | Y,S,X | M | NO | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/EA--1111 | | 105-KE, 105KW | 105-KE, 105KW | 1995 MAR | USDOE | Characterization of stored defense production spent nulcear fuel and associated materials at Hanford Site, Richland Washington: Environmental assessment | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=82489&Row=9 | There are about 2,100 tonnes (2,300 tons) of defense production spent nuclear fuel stored in the 100-K Area Basins located along the south shore of the Columbia River in the northern part of the Hanford Site. The DOE needs to characterize defense production spent nuclear fuel and associated materials stored on the Hanford Site. As a result of that characterization, modes of interim storage can be determined that would be compatible with the material in its present state and alternative treatment processes could be developed to permit a broader selection of storage modes. Environmental impacts of the proposed action were determined to be limited principally to radiation exposure of workers, which, however, were found to be small. | D,H,P | G.E | Y,S,X | A | NO | NO |
| DOE/EA-1369 | | 100-KW, 100KE | 100-KW, 100KE | 1996 Dec | USDOE | Environmental assessment, K Pool fish rearing, Hanford Site, Richland, Washington | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=441718&Row=17 | The US Department of Energy (DOE) has a need to respond to a request to lease facilities at the Hanford Site 100-KE and 100-KW filter plant pools (K Pools) for fish rearing activities. The proposed action is to enter into a use permit or lease agreement with the YIN or other parties who would rear fish in the 100-K Area Pools. The proposed action would include necessary piping, pump, and electrical upgrades of the facility; cleaning and preparation of the pools; water withdrawal from the Columbia River, and any necessary water or wastewater treatment; and introduction, rearing and release of fish. | D,H,P | G,Z,E | | A | NO | NO |
| DOE/EIS-0113 | DRAFT | 100-K | 100-KR-2 | 2001 MAR | DOE-RL | DRAFT ENVIRONMENTAL ASSESSMENT FOR 100-K BASIN SLUDGE STORAGE AT 221-T BUILDING HANFORD SITE RICHLAND WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0021/D8682849/D8682849_28590_70.pdf | This environmental assessment is prepared to assess potential environmental impacts associated with the proposed action to store sludge from the 100-K Area into the 221-T Building canyon in the 200 West Area until future disposition of the sludge is determined. | D | G,Z,C,E | Y,X | M | YES | YES |
| DOE/EIS-0119F | VOLUMES 1-5 | HANFORD SITE | HANFORD SITE | 1987 DEC | DOE-RL | DISPOSAL OF HANFORD DEFENSE HIGH-LEVEL, TRANSURANIC AND TANK WASTES | RL - 621.4838 | THIS EIS PROVIDES ANALYSES OF IMPACTS FOR THE SELECTION AND IMPLEMTATION OF FINAL DISPOSAL STRATEGIES FOR WASTES. AN EVALUATION IS PRESENTED TO ASSIST IN DETERMINING WHETHER ANY ADDITIONAL ACTION SHOULD BE TAKEN FOR LONG-TERM PROTECTION. IT ALSO ADDRESSES IMPACTS ASSOCIATED WITH THE CONSTRUCTION, OPERATION, AND DECOMMISIONING OF WASTE TREATMENT FACILITIES. | D,H,P | G,Z,C,E,T | Y,S,X | A | NO | YES |
| DOE/EIS-0189 | FINAL | 100 AREA<br>200 AREA | 100 AREA<br>200 AREA | 1992 DEC | DOE-RL | DOCOMMISSIONING OF EIGHT SURPLUS PRODUCTION REACTORS AT THE HANFORD SITE, RICHLAND, WASHINGTON | RL - 333.71 UNI | THIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PRESENTS ANALYSES OF POTENTIAL ENVIRONMENTAL IMPACTS OF DECOMMISSIONING THE EIGHT SURPLUS PRODUCTION REACTOS AT THE HANFORD SITE. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/EIS-0203D | | HANFORD SITE | HANFORD SITE | 1994 JUN | DOE | DOE PROGRAMMATIC SPENT NUCLEAR FUEL MANAGEMENT AND INEL ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT PROGRAMS EIS VOLUME 1 APPENDIX A DRAFT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196073740/D196073740_7002_406.pdf | Large overview of the Hanford Site describing how The U.S. Department of Energy is currently deciding the direction of its environmental restoration and waste management programs at the Idaho National-Engineering Laboratory (INEL) for 10 years. it is stated that pertinent to this decision is establishing policies for the environmentally sensitive and safe transpo rt, storage, and management of spent nuclear fuels. To develop these po licies, it is necessary to revisit or examine the available options.This document discusses five alternatives for the management and storage of spent nuclear fuel, the affected environment, and potential impacts of the alternatives. | D,H,P | G,Z,E,C,T | Y,S,X | A,M | YES | YES |
| DOE/EIS-0222-F | REVISED DRAFT EXECUTIVE SUMMARY | HANFORD SITE | HANFORD SITE | 1999 SEPT | DOE-RL | FINAL HANFORD COMPREHENSIVE LAND-USE PLAN ENVIRONMENTAL IMPACT STATEMENT; EXECUTIVE SUMMARY | RL - 363.1799 | USED BY THE NINE COOPERATING AND CONSULTING COMPANIES TO DEVISE AND SUMMARIZE THE LAND USE PLAN WHICH: EVALUATES THE POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATES WITH IMPLEMENTING A COMPREHENSIVE LAND-USE PLAN FOR AT LEAST THE NEXT 50 YEARS. PRESENTS ALTERNATIVES. | D,H,P | G,Z,E,C,T | Y,S,X | A,M | YES | YES |
| DOE/EIS-0245/SA1 | | HANFORD SITE | HANFORD SITE | 1996 FEB | DOE-RL | STORAGE AND DISPOSITION OF WEAPONS-USABLE FISSILE MATERIALS DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT | RL - 363.7289 | THIS DOCUMENT ANALYZES THE POTENTIAL ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES FOR THE LONG-TERM STORAGE AND DISPOSITION OF WEAPONS-USABLE FISSILE MATERIALS FROM U.S. NUCLEAR WEAPON DISMANTLEMENT | D,H,P | G,Z,E | Y,X | | YES | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/EIS-0245F | | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1996 JAN | DOE-RL | ADDENDUM FINAL EIS MANAGEMENT OF SPENT NUCLEAR FUEL FROM 100-K BASINS AT HANFORD SITE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196049305/D196049305_58630198_76870_116.pdf | The purpose of the Final EIS is to provide environmental information to assist DOE in the selection of an alternative for the management and storage (up to approximately 40 years) of spent nuclear fuel (SNF) currently located in the K Basins at the Hanford Site. Management and storage/disposal of sludge, debris, and water in the K Basins are also included in the Final EIS. | D,P | | | | NO | NO |
| DOE/EIS-0245F | | 100-K | 100-KR-2 | 1998 JUL | DOE-RL | SUPPLEMENTAL ANALYSIS OF ENVIRONMENTAL EFFECTS OF CHANGES IN DOE PREFERRED ALTERNATIVE FOR MANAGEMENT OF SPENT NUCLEAR FUEL FROM 100-K BASINS AT HANFORD STIE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199091180/D199091180_19406_25.pdf | The purpose of this Supplement Analysis is to provide a basis for a determination of whether or not an EIS Supplement is required as a result of deleting the hot conditioning/passivation step from the preferred alternative selected in the Record of Decision for The FEIS , which evaluated the potential environmental impacts of alternatives for managing the spent nuclear fuel (SNF) located in the K-East (KE) and K-West (KW) SNF storage basins. | D,H,P | E | Y,X | | YES | YES |
| DOe/ER/14733 | | 100-K | 100-KR-2 | 1995 OCT | DOE-RL | IMPLEMENTATION PLAN MANAGEMENT OF SPENT NUCLEAR FUEL FROM 100-K BASINS AT HANFORD SITE EIS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199096948/D199096948_19474_68.pdf | The purpose of the implementation plan (IP) for the K Basins SNF EIS is to report the results of the environmental impact statement (EIS) scoping process, provide guidance to DOE for preparing the K Basins SNF EIS, and provide alternatives. | D,P | | | | NO | YES |
| DOE/RL 96-32 | | 105-KW, 105KE | 105-KW, 105KE | 2003 NOV | K.O. Buesseler ; M. Dai ; D. Repeta ; et.al. | Speciation, Mobility and Fate of Actinides in the Groundwater at the Hanford Site | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=820366&Row=15 | The objective of this project was to obtain field data on the chemical and physical forms of plutonium in groundwater at the Hanford site. We focused on the 100-K and 100-N areas near the Columbia River, where prior reactor operations and waste storage was in close proximity to the river. Plutonium and other actinides represent important contaminants in the groundwater and vadose zone at Hanford and other DOE sites. The distribution and migration of these actinides in groundwater must be understood so that these sites can be carefully monitored and effectively cleaned up, thereby minimizing risks to the public. | H | G,Z | Y,S,X | A | NO | NO |
| DOE/RL-2000-31 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2000 JUN | DOE-RL | ANNUAL SUMMARY REPORT CY 1999 FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT OPERATIONS AND OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0023/D8373958/D8373958_27269_251.pdf | This annual summary'report discusses the interim remedial actions at the 100-HR-3 and 100-KR-4 Operable Units (OUs) for January 1, 1999, through December 31, 1999. This is the third annual summary report that has been submitted for these OUs; the first report was released in April 1998 and the second report in May 1999. Ongoing annual summaries and performance evaluations of each of the pump-and-treat systems are required. | D,H,P | Z | Y,X | A,M | NO | NO |
| DOE/RL-2000-59 | REV 0 | 100-K | 100-KR-2 | 2000 MAY | DOE-RL | 105-K BASINS 1999 DEBRIS REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0023/D8317858/D8317858_26998_30.pdf | The purpose of this report is to describe the quantities, character, and management (e.g., segregation and management after removal) of 105-K Basins debris managed in calendar year 1999. This report applies only to the debris waste currently being generated at the 105-KE and 105-KW Basins as the result of the CERCLA removal action. A more detailed description of 105-K Basins debris resides in Section 4.0. | D,P | Z | Y,X | | NO | NO |
| DOE/RL-2000-59 | DRAFT A | 100 AREA | 100 AREA | 2000 AUG | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR AQUIFER SAMPLING TUBES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0022/D8509895/D8509895_27753_45.pdf | This sampling and analysis plan (SAP) presents the overall rationale and strategy for the sampling and analyses proposed for samples collected from aquifer sampling tubes adjacent to and within the Columbia River. | D,H,P | Z | Y,X | M | NO | NO |
| DOE/RL-2001-04 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2001 AUG | DOE-RL | ANNUAL SUMMARY REPORT CY 2000 FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU AND PUMP AND TREAT OPERATIONS [SECTION 1 OF 2] | http://www5.hanford.gov/arpir/?content=detail&AKey=D8843184 | This annual summary'report discusses the interim remedial actions at the 100-HR-3 and 100-KR-4 Operable Units (OUs) for January 1, 1999, through December 31, 1999. This is the third annual summary report that has been submitted for these OUs; the first report was released in April 1998 and the second report in May 1999. Ongoing annual summaries and performance evaluations of each of the pump-and-treat systems are required. | D,H,P | Z | Y,X | A,M | NO | NO |
| DOE/RL-2001-04 | REV 0 | 100 AREA | 100 AREA | 2000 OCT | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR AQUIFER SAMPLING TUBES | http://www5.hanford.gov/arpir/?content=detail&AKey=D8510131 | This sampling and analysis plan (SAP) presents the overall rationale and strategy for the sampling and analyses proposed for samples collected from aquifer sampling tubes adjacent to and within the Columbia River. | D,H,P | Z | Y,X | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2001-28 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2001 AUG | DOE-RL | ANNUAL SUMMARY REPORT CY 2000 FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU AND PUMP AND TREAT OPERATIONS [SECTION 2 OF 2] | http://www5.hanford.gov/arpir/?content=detail&AKey=D8843189 | This annual summary'report discusses the interim remedial actions at the 100-HR-3 and 100-KR-4 Operable Units (OUs) for January 1, 1999, through December 31, 1999. This is the third annual summary report that has been submitted for these OUs; the first report was released in April 1998 and the second report in May 1999. Ongoing annual summaries and performance evaluations of each of the pump-and-treat systems are required. | D,H,P | Z | Y,X | A,M | NO | NO |
| DOE/RL-2001-46 | REV 0 | 100 AREA 200 AREA | 100-KR-2 | 2002 MAY | DOE-RL | RADIOACTIVE AIR EMISSIONS NOTICE OF CONSTRUCTION FOR STORAGE IN T-PLANT COMPLEX OF SLUDGE FROM 100-K BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0019/D8743391/D8743391_28880_30.pdf | This NOC describes the activities necessary to receive and store the sludge that will be removed from the K Basins and transferred to the T Plant Complex 221-T canyon for interim storage. | D,P | | Y | | NO | NO |
| DOE/RL-2001-46 | REV 1 | 100-K | 100-KR-2 | 2001 NOV | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K EAST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/arpir/?content=detail&AKey=D8928808 | The purpose of the K-East (KE) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KE Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. Revision 4 to this Radioactive Air Monitoring Plan changed the aerosol specification for HEPA filter testing in the field to reflect field requirements versus factory requirements. The filter media used for emissions sampling of the KE Basin roof vents was changed from glass-fiber to reference those filter media allowed per ANSI N 13.1-1999, Table D-1. This includes an acrylic copolymer on a nylon filter support that currently is being used. | D,H,P | | Y,S,X | M | NO | NO |
| DOE/RL-2001-46 | REV 2 | 100-K | 100-KR-2 | 2002 JUN | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K EAST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/arpir/?content=detail&AKey=D9125354 | The purpose of the K-East (KE) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KE Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. Revision 4 to this Radioactive Air Monitoring Plan changed the aerosol specification for HEPA filter testing in the field to reflect field requirements versus factory requirements. The filter media used for emissions sampling of the KE Basin roof vents was changed from glass-fiber to reference those filter media allowed per ANSI N 13.1-1999, Table D-1. This includes an acrylic copolymer on a nylon filter support that currently is being used. | D,H,P | | Y,S,X | M | NO | NO |
| DOE/RL-2001-46 | REV 3 | 100-K | 100-KR-2 | 2002 JUL | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K EAST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/arpir/?content=detail&AKey=D9125473 | The purpose of the K-East (KE) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KE Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. Revision 4 to this Radioactive Air Monitoring Plan changed the aerosol specification for HEPA filter testing in the field to reflect field requirements versus factory requirements. The filter media used for emissions sampling of the KE Basin roof vents was changed from glass-fiber to reference those filter media allowed per ANSI N 13.1-1999, Table D-1. This includes an acrylic copolymer on a nylon filter support that currently is being used. | D,H,P | | Y,S,X | M | NO | NO |
| DOE/RL-2001-46 | REV 4 | 100-K | 100-KR-2 | 2003 JAN | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K EAST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0002/d1112720/d1112720_268.pdf | The purpose of the K-East (KE) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KE Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. Revision 4 to this Radioactive Air Monitoring Plan changed the aerosol specification for HEPA filter testing in the field to reflect field requirements versus factory requirements. The filter media used for emissions sampling of the KE Basin roof vents was changed from glass-fiber to reference those filter media allowed per ANSI N 13.1-1999, Table D-1. This includes an acrylic copolymer on a nylon filter support that currently is being used. | D,H,P | | Y,S,X | M | NO | NO |
| DOE/RL-2001-55 | REV 0 | 100-K | 100-KR-2 | 2001 OCT | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K WEST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D8889744/D8889744_29647_20.pdf | The purpose of the K-West (KW) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KW Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. The SWS will provide retrieval and will contain the identified as-settled sludge volume in the KW Basin, while maintaining basin water clarity and associated radioactive control limits per KW Basin water treatment requirements. These activities support the KW Basin fuel transfer and debris removal systems. | D,P | | Y,X | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2001-55 | Rev. 5 | 100-KR-2 | 100-KR-2 | 2003 SEP | | Radioactive Air Monitoring Plan, K East Basin Sludge and Water System | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2860702 | The purpose of the K East Basin Sludge Water System (SWS) is to provide a system that will transfer the K East Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. The SWS will provide a system to retrieve and contain the identified as-settled sludge volume in the K East Basin, while maintaining basin water clarity. | D,H,P | | S,X | | No | NO |
| DOE/RL-2002-05 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2002 SEPT | DOE-RL | CY 2001 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9174398/D9174398_31916_208.pdf | This annual progress and performance evaluation report discusses the groundwater remedial actions in the 100 Areas, including the interim remedial actions at the 100-HR-3, 100-KR4, and 100-NR-2 Operable Units (OUs). | D,H,P | Z | Y,X | A,M | NO | NO |
| DOE/RL-2002-05 | REV 1 | 100-D | 100-HR-3 100-KR-4 100-NR-2 | 2003 MAY | RF RAIDL FLUOR | CY 2001 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS [SECTION 2 OF 3] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D1666204/D1666204.PDF | Contains Appendix A, which is trend plots for timing and contamination, for 2001 Annual Report. | | | Y | | NO | NO |
| DOE/RL-2002-05 | REV 1 | 100-K | 100-KR-2 | 2001 DEC | DOE-RL | RADIOACTIVE AIR MONITORING PLAN 100-K WEST BASIN SLUDGE AND WATER SYSTEM | http://www5.hanford.gov/arpir/?content=detail&AKey=D8928303 | The purpose of the K-West (KW) Basin Sludge and Water System (SWS) is to provide a system that will transfer the KW Basin sludge from in-basin storage or source locations to containment and loadout for subsequent transport to the T Plant Complex for storage. The SWS will provide retrieval and will contain the identified as-settled sludge volume in the KW Basin, while maintaining basin water clarity and associated radioactive control limits per KW Basin water treatment requirements. These activities support the KW Basin fuel transfer and debris removal systems. | D,P | | Y,X | M | NO | NO |
| DOE/RL-2003-09 | REV 0 | 100-D | 100-HR-3 100-KR-4 100-NR-2 | 2003 MAY | RF RAIDL FLUOR | CY 2002 ANNUAL SUMMARY REPORT FOR 100-HR-3 AND 100-KR-4 AND 100-NR-2 OU PUMP AND TREATMENT OPERATIONS [SECTION 3 OF 3] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D1720008 | Contains Appendix A, which is trend plots for timing and contamination, for 2002 Annual Report. | | | Y | | NO | NO |
| DOE/RL-2004-21 | REV 0 | 100-D | 100-HR-3 100-KR-4 100-NR-2 | 2003 MAY | RF RAIDL FLUOR | CY 2002 ANNUAL SUMMARY REPORT FOR 100-HR-3 AND 100-KR-4 AND 100-NR-2 OU PUMP AND TREATMENT OPERATIONS [SECTION 1 OF 3] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0042/D1719245/D1719245_788.pdf | This annual summary report of progress and performance evaluation discusses the groundwater remedial actions in the 100 Areas, including the interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Operable Units. | D,P | Z | Y,X,P | | NO | YES |
| DOE/RL-2004-43 | | 100-HR-3 100-KR-4 100-NR-2 | 100-HR-3 100-KR-4 100-NR-2 | 2004 MAY | G. G. Kelty R. S. Edrington V. G. Johnson April 2004 R. F. Raidl K. Sathyanarayana | CY 2003 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://www5.hanford.gov/arpir/?content=detail&AKey=D4953894 | This annual summary report discusses the groundwater remedial actions in the 100 Areas including the interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 OUs (Figure 1-1). A detailed description of the progress and performance of the In Situ Redox Manipulation (ISRM) barrier is reported separately.<br>The interim remedial actions chosen for the 100-HR-3 and 100-KR-4 OUs are pump-and-treat systems that use an ion-exchange medium for contaminant removal. The systems were designed to achieve three remedial action objectives (RAOs), as well as specific operational and aquifer performance criteria described in the interim remedial action Record of Decision (ROD), Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units at the Hanford Site (Interim Remedial Actions) (EPA et al. 1996). | D,H,P | G,Z,T | Y,S,x,P | A ,M | Yes | Yes |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2004-48 | | 100-KR-1<br>100-KR-2 | 100-KR-1<br>100-KR-2 | 2004 JUN | NA-1 | ENGINEERING EVALUATION COST ANALYSIS FOR 100-K AREA ANCILLARY FACILITIES | http://www5.hanford.gov/arpir/?content=detail&AKey=D5653178 | This document presents the results of an engineering evaluation/cost analysis(EE/CA)that was conducted to evaluate alternatives and recommend an approach for disposition of 27 buildings(subsequently referred to as facilities) located in the 100-K Area of the Hanford Site. The facilities are currently inactive, and the U.S. Department of Energy (DOE), Richland Operations Office (RL) has determined there is no further use for them. Hazardous substances in these facilities present a potential threat to human health and the environment to the extent that action is warranted for the facilities. The lead agency, the U.S. Environmental Protection Agency (EPA), has determined that removal action is appropriate to mitigate the potential hazards present in the 100-K Area ancillary facilities. An action memorandum, which will be developed from this EE/CA, will document and authorize implementation of the removal action that is selected for the facilities. | D,H,P | E | Y,S,X | A | Yes | Yes |
| DOE/RL-2005-26 | Revision 1 | 100-KR-2 | 100-KR-2 | 2005 JAN | NA-1 | PROPOSED PLAN FOR AN AMENDMENT TO K BASINS INTERIM REMEDIAL ACTION RECORD OF DECISION | http://www5.hanford.gov/arpir/?content=detail&AKey=D7074436 | This Proposed Plan l recommends changes to the current K Basins ROD. The recommended changes affect sludge disposition, and underwater debris retrieval, treatment, and disposal from the 105-K East and 105-K West Spent Nuclear Fuel Basins. These proposed changes will result in increased protection to human health and the environment. | D,H,P | T | | | Yes | Yes |
| DOE/RL-2005-05 | Rev 0 | 100-K | 100-KR-4 | 2005 Feb | Petersen, SW | Treatability Test Plan for Fixation of Chromium in the Groundwaer | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/13248486/59897753/6332070 6/DOE-RL-2005-05 - Rev 0 - %5BD7453172%5D.pdf?nodeid=64904526&vernum=2 | The Test Plan describes the theory, process, objectives, data quality objectives and approach to testin the efficacy of calcium polysulfide and an organic substrate (corn syrup) in immobilizing hexavalent chromium in the aquifer. | | | | | | |
| DOE/RL-2005-18 | Rev 0 | 100-K | 100-KR-4 | 2005, May | DOE/RL | CY 2004 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/13248486/59897753/6332070 6/DOE-RL-2005-18 - Rev 0 - %5BDA088495%5D.pdf?nodeid=64904528&vernum=3 | This annual summary report discusses the groundwater remedial actions in the 100 Areas including the interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 OUs (Figure 1-1). A detailed description of the progress and performance of the In Situ Redox Manipulation (ISRM) barrier is reported separately.<br>The interim remedial actions chosen for the 100-HR-3 and 100-KR-4 OUs are pump-and-treat systems that use an ion-exchange medium for contaminant removal. The systems were designed to achieve three remedial action objectives (RAOs), as well as specific operational and aquifer performance criteria described in the interim remedial action Record of Decision (ROD), Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units at the Hanford Site (Interim Remedial Actions) (EPA et al. 1996). | | | | | | |
| DOE/RL-2005-33 | Rev. 0 | 100-K | 100-KR-1, 100-KR-1 | 7/26/2005 | NA-1 | REMOVAL ACTION WORK PLAN FOR 100-K AREA ANCILLARY FACILITIES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA695988/DA695988_40534_76.pdf | This document contains the removal action work plan (RAWP) for 27 facilities (buildings and structures) in the 100-K Area. These buildings, vaults, structures, and underground pipelines are located in the 100-K Area of the Hanford Site, which is owned and operated by the U.S. Department of Energy (DOE), in Benton County, Washington (Figure 1-1). The 100-K Area ancillary facilities supported the 105-KE and 105-KW Reactors. Past operations, disposal practices, spills, and unplanned releases have resulted in contamination of the facility structures, underlying soil, and underlying groundwater in the 100-K Area (Figure 1-2). The 100-K Area is one of the areas of the Hanford Site that was placed on the U.S. Environmental Protection Agency's (EPA's) National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The EPA and the DOE, Richland Operations Office (RL) have determined that hazardous substances 2 in the facilities (listed in Table 1-1) present. A substantial threat of release that poses a risk to human health and the environment to the extent that a removal action is warranted. | D | | Y, S | | YES | NO |
| DOE/RL-2005-45 | REV 1 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 2006 NOV | TA LEE WCH | 100-K AREA INTERIM SAFE STORAGE AND D4 PROJECT WASTE SAMPLING AND ANALYSIS PLAN | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0004/da04084569/da04084569_37804_90.pdf | This sampling and analysis plan (SAP) presents the strategy, requirements, and procedures for sampling and analysis activities that support waste management decisions associated with interim safe storage (ISS) of the 100-K Area reactors and deactivation, decontamination, decommissioning, and demolition (D4) of associated 100-K Area facilities. This revision (Revision 1) covers all of the 100-K Area facilities including the reactors, whereas the original version k(Revision 0) covered only 27 facilities. | D,P | | Y | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2005-86 | DRAFT A | 100-K | 100-KR-2 | 2006 FEB | DOE-RL | ENGINEERING EVALUATION COST ANALYSIS FOR 105-KE AND 105-KW REACTOR FACILITIES AND ANCILLARY FACILITIES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0009/DA02035006/DA02035006_34763_139.pdf | This document presents the results of an evaluation of three removal action alternatives for the disposition of approximately 85 facilities (buildings or structures) in the 100-K Area of the Hanford Site plus the 105-K East (KE) and 105-K West (KW) Reactor Buildings. It presents the results of an engineering evaluation/cost analysis (EE/CA) that was conducted to evaluate alternatives and recommend anapproach for disposition of the 105-KE and 105-KW Reactor Facilities and below-grade structures and remaining ancillary facilities. | D,H,P | Z,E | Y,S,X | M | NO | YES |
| DOE/RL-2005-86 | REV 0 | 100 AREA | 100 AREA | 2005 AUG | DOE-RL | SURPLUS REACTOR FINAL DISPOSITION ENGINEERING EVALUATION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA00913933/DA00913933_32588_36.pdf | This engineering evaluation presents an assessment of the decommissioning and final disposition options for the Hanford Site surplus production reactors. The evaluation will consider whether changes have occurred regarding technical innovations, environmental values, regulatory requirements, or other information documented inthe Final EIS that might lead to a different decision. | D,H,P | | Y | M | NO | YES |
| DOE/RL-2006-08 | Rev 0 | 100 Area | 100-KR-4 | 2006 May | DOE/RL | CY 2005 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/13248486/59897753/63320706/DOE-RL-2006-08_-_Rev_0_-_%5BNA05091835%5D.pdf?nodeid=64932024&vernum=2 | This annual summary report discusses the groundwater remedial actions in the 100 Areas including the interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 OUs (Figure 1-1). A detailed description of the progress and performance of the In Situ Redox Manipulation (ISRM) barrier is reported separately.<br>The interim remedial actions chosen for the 100-HR-3 and 100-KR-4 OUs are pump-and-treat systems that use an ion-exchange medium for contaminant removal. The systems were designed to achieve three remedial action objectives (RAOs), as well as specific operational and aquifer performance criteria described in the interim remedial action Record of Decision (ROD), Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units at the Hanford Site (Interim Remedial Actions) (EPA et al. 1996). | | | | | | |
| DOE/RL-2006-20 | Rev 0 | Hanford Site | 100-KR-4 | 2006, MAY | DOE/RL | CERCLA Five-Year Review Report for the Hanford Site | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/56579814/62100631/DOE_RL-2006-20_%5BDA02470840%5D.pdf?nodeid=62106475&vernum=3 | The purpose pf a five year review is to determine whether the remedies at a site are protective of human health and the environment, and are documented in a report. The five-year review identified issues found during the review, if any, and identifies actions to address them. This document identified issues for many operable units which required action. For 100-KR-4 OU, they were - 1.) Issue 3 - The southeastern (inland) extent of the chromium groundwater plume from the 116-K-2 trench, northeast of the current injection swlls has not been delineated 2.) Issue 4 - The small chromium plume at 100-KE W REactor site has reached the river, as evidenced by near-shore aquifer tubes. There is currently no active remediation system in place for the small charimum plume at the KE/KW reactor site. and 3) Issue 5 - Groundwater monitorin indicates that the expansion of the 100-K Area pump-and-treat extraction systme has not yet achieved the remedial action objective. These findings led to the construction of two additional treatment systems, the KW and KX systems and the drilling of the requested wells. | | | | | | |
| DOE/RL-2006-052 | REV 0 | 100-K | 100-KR-2 | 2006 MAY | DOE-RL | ENGINEERING EVALUATION COST ANALYSIS FOR 105-KE AND 105-KW REACTOR FACILITIES AND ANCILLARY FACILITIES | http://www5.hanford.gov/arpir/?content=detail&AKey=DA02850332 | This document presents the results of an evaluation of three removal action alternatives for the disposition of approximately 85 facilities (buildings or structures) in the 100-K Area of the Hanford Site plus the 105-K East (KE) and 105-K West (KW) Reactor Buildings. It presents the results of an engineering evaluation/cost analysis (EE/CA) that was conducted to evaluate alternatives and recommend anapproach for disposition of the 105-KE and 105-KW Reactor Facilities and below-grade structures and remaining ancillary facilities. | D,H,P | Z,E | Y,S,X | M | NO | YES |
| DOE/RL-2006-17 | REV 0 | 100-K | 100-KR-4 | 2006 SEPT | RF RAIDL<br>FH | KW PUMP AND TREAT SYSTEM REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN SUPPLEMENT TO 100-KR-4 GROUNDWATER OU INTERIM ACTION | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0004/da04043200/da04043200_37767_94.pdf | This supplement to the Remedial Design and Remedial Action Work Plan for the 100-HR-3 and 100-KR-4 Groundwater Operably Units' Interim Action, DOE/RL-96-84, Rev. 0-A (DOE-RL 2003) was prepared to include remediation of the chromium plume in the area of the 105-KW Reactor. | D,P | G,Z,E,T | Y,X,P | A | YES | NO |
| DOE/RL-2006-52 | REV 2 | 100-K | 100-KR-4 | 2009 JUN | DOE-RL | THE DW PUMP AND TREAT SYSTEM REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN SUPPLEMENT TO THE 100-KR-4 GROUNDWATER OPERABLE UNIT INTERIM ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0051/0906100518/[0906100518].PDF | The construction of the KW pump-and-treat system was addressed in KW Pump-and Treat System Remedial Design and Remedial Action Work Plan, Supplement to the 100-KR-4 Groundwater Operable Unit Interim Action. Revision 2 of this supplement provides additional hydrogeologic data and engineering design requirements to support a 100-gallon-per-minute expansion to the current KW pump-and-treat system. | D,P | G,Z,E,T | Y,S,X,P | A,M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2006-52 | REV 0 | 100-K | 100-KR-4 | 2006 MAR | DOE-RL | TREATABILITY TEST REPORT FOR CALCIUM POLYSULFIDE IN 100-K AREA | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0007/da02107064/da02107064_34891_140.pdf | This report presents the results of a treatability test performed in the 100-K Area during the summer of 2005. This test used the chemical calcium polysulfide (CPS) to remediate chromium that was present in the groundwater. This treatment also chemically reduced a portion of the aquifer materials to form a permeable reactive barrier that will continue to treat chromium in the groundwater. This test was conducted to evaluate the practicality and cost-effectiveness of using CPS to remediate chromium in the aquifer, and to gain operational experience in its use. The test also determined important hydrologic information for the 100-K Area aquifer, provided experience in designing systems to implement this type of technology, and revealed several lessons learned that will be valuable if this technology is implemented. | D,P | Z | Y,S,X,P | A | NO | NO |
| DOE/RL-2006-75 | n/a | 100-K | 100-HR-3, 100-KR-4 | 12/1/2007 | R. F. Raidl | SUPPLEMENT TO 100-HR-3 AND 100-KR-4 REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORKPLAN FOR EXPANSION OF 100-KR-4 PUMP AND TREAT SYSTEM | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0020/DA06485874/1.PDF | This supplement to the Remedial Design and Remedial Action Work Plan for the 100-HR-3 and 100-KR-4 Groundwater Operable Units' Interim Action (DOE/RL-96-84) supports the expansion of the pump-and-treat system remediating the hexavalent chromium plume associated with the 116-K-2 Trench. | D | G,Z | Y | A | NO | NO |
| DOE/RL-2006-75 | REV 1 | 100-K | 100-HR-3 100-KR-4 | 2008 OCT | DOE-RL | SUPPLEMENT TO THE 100-HR-3 AND 100-KR-4 REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORKPLAN FOR THE EXPANSION OF THE 100-KR-4 PUMP AND TREAT SYSTEM | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/0812030152/0079375%20-%20[0812030152].PDF | This supplement to the Remedial Design and Remedial Action Work Plan for the 100-HR-3 and 100-KR-4 Operable Units Interim Action supports the expansion of the pump-and-treat system actively remediating the hexavalent chromium plume associated with the former I16-K-2 Trench. The I00-HR-3 and I00-KR-4 Operable Units (OUs) interim Record of Decision (ROD) (EPA et al. 1996) defines the regulatory performance criteria for cleanup of the hexavalent chromium plume in the 100-KR-4 OU. The supplement includes an updated quality assurance project plan (Appendix A) and a numerical modeling discussion (Appendix B). | D,H,P | G,Z,E | Y,S,P | M | YES | NO |
| DOE/RL-2007-48 | Rev. 0 | 100-K | 100-K | 2007 May | R.F. Raidl; R.S. Edrsngton; M.O.E'aepho | CY 2006 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://www5.hanford.gov/arpir/?content=findpage&AKey=DA05059816 | Fluor Hanford, Inc. (FH) is currently operating six groundwater pump-and-treat systems across the Hanford Site. Four systems address groundwater in the 100 Areas: two systems treat hexavalent chromium in the 100-HR-3 Operable Unit (OU); the 100-KR-4 OU system also treats hexavalent chromium; and the 100-NR-2 system, which treats strontium-90, is in cold-standby status. | D,H,P | Z | Y,S,X,P | M | YES | NO |
| DOE/RL-2007-48 | REV 0 | 100-K | | 1/18/2008 | D. A. Brockman | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR 100 AREA REMAINING SITES INTERIM REMEDIAL ACTION: 105-K EAST BASIN DEMOLITION, DOE/RL-2007-48, REVISION 0 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0042/DA06585908/1.PDF | The purpose of this Remedial Design/Remedial Action Work Plan (RD/RA work plan) is to describe the remedial design, design basis, and the remedial actions necessary to decontaminate and decommission (D&D) the 105-K East Basin. The 105-K East Basin includes a superstructure (that part of the building which is above grade) and a substructure (that part of the building which is below grade). | D, H | G | S, Y | | NO | NO |
| DOE/RL-2007-48 | REV 0 | 100-K | 105-K | 2007 DEC | DOE-RL | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR THE 100 AREA REMAINING SITES INTERIM REMEDIAL ACTION 105-K EAST BASIN DEMOLITION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0052/0907300303/[0907300303].PDF | The purpose of this Remedial Design/Remedial Action Work Plan is to describe the remedial design, design basis and the remedial actions necessary to decontaminate and decommission the 105-K East Basin. The 105-K East Basin includes a superstructure (that part of the building which is above grade) and a substructure (that part of the building which is below grade). | D,P | G,Z | Y,X | M | YES | NO |
| DOE/RL-2008-05 | Rev 0 | 100-K | 100-KR-4 | 2008, July | DOE-RL | CY 2007 ANNUAL SUMMARY REPORT FOR 100-HR-3 100-KR-4 AND 100-NR-2 OU PUMP AND TREAT OPERATIONS | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/57033376/138570373/0078379_-%5B0807090160%5D.pdf?nodeid=138513103&vernum=1 | Fluor Hanford, Inc. (FH) is currently operating six groundwater pump-and-treat systems across the Hanford Site. Four systems address groundwater in the 100 Areas: two systems treat hexavalent chromium in the 100-HR-3 Operable Unit (OU); the 100-KR-4 OU system also treats hexavalent chromium; and the 100-NR-2 system, which treats strontium-90, is in cold-standby status. | | | | | | |
| DOE/RL-2008-33 | REV 0 | 100-K | 100-KR-4 | 2008 JULY | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR INVESTIGATING CHROMIUM GROUNDWATER CONTAMINATION NEAR THE 105-KW REACTOR | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0044/0807210257/0078433%20-%20[0807210257].PDF | This sampling and analysis plan (SAP) describes the proposed drilling and construction of four wells in the 1 00-K West (Il00-KW) Area within the Il00-KR-4 Groundwater Operable Unit (OU). The purpose of these wells is to investigate the extent of high chromium concentrations measured in groundwater at well 199-K-137 and to provide additional data to evaluate changes to a small-scale pump-and-treat (P&T) facility currently treating the localized chromium plume near the 1 05-KW Reactor. | D,H,P | G,Z,T | Y,P | M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2008-46-ADD2 | DRAFT A | 100-K | 100-KR-1 100-KR-2 100-KR-4 | 2009 MAY | DOE-RL | INTEGRATED 100 AREA REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN ADDENDUM 2: 100K DECISION UNIT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0051/0906110864/[0906110864].PDF | This document is Addendum 2 to the Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan. This addendum describes the 100-K Decision Unit and planned efforts to conduct a remedial investigation in support of a final record of decision for the 100-K Decision Unit. The 100-K Decision Unit includes the 100-KR- I and 100-KR-2 Source Operable Units (OUs) and the 100-KR-4 Groundwater OU. The work plan contains the planning elements that are common to all of the Hanford Site 100 Area source and groundwater OUs and a summary of the RI/feasibility study tasks. | D,H,P | G,Z,C,E,T | Y,S,X,P | A,M | YES | YES |
| DOE./RL-2008-66 | Rev 0 | Hanford | 100-KR-4 | 2009, March | DOE/RL | Hanford Site Groundwater Monitoring Report for Fiscal Year 2008 | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/13248486/59897753/63320706/DOE_RL-2008-66_-_Rev_0_-_%5B0903300073%5D.pdf?nodeid=1426285398vernum=1 | This report combines the results of groundwater monitoring for fiscal year 2008 on the U.S. Department of Energy's Hanford Site in southeastern Washington with results of groundwater remediation and vadose zone studies. | | | | | | |
| DOE/RL-2009-106 | REV 0 | 100-K | 105-KB | 2010 NOV | DOE-RL | ENGINEERING EVALUATION/COST ANALYSIS FOR 105-KE REACTOR DECOMMISSIONING | http://www5.hanford.gov/arpir/?content=detail&AKey=0084217 | The U.S. Department of Energy Is planning the demolition of the 105-K East (105-KB) nuclear reactor located in the 100-K Area of the Hanford Site. DOE has prepared this engineering valuation/cost analysis (BE/CA) to identify the bjectives of the removal action and analyze the effectiveness, implementability, and estimated cost of the potentially Applicable alternatives to satisfy these objectives. Following the issuance of this BE/CA for public comment and consideration of comments received during the public review period, an Action Memorandum documenting the selected alternative will be issued. | D | E | Y,S,X | A | NO | YES |
| DOE/RL-2009-15 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 2009 MAY | DOE-RL | CALENDAR YEAR 2008 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0051/0906180630/[0906180630].PDF | This annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report describes the annual summary and performance evaluation for the three respective OUs. Section 2.0 discusses the 100-HR-3 OU, Section 3.0 discusses the 100-KR-4 OU and KW Reactor, and Section 4.0 discusses the 100-NR-2 OU. An evaluation of costs is presented in Section 5.0, and the references cited in this report are included as Section 6.0. Additional supporting informnation is included in Appendices A through G. | D,P | G,Z | Y,S,X,P | A,M | YES | YES |
| DOE/RL-2009-15 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 2009 MAY | DOE-RL | CALENDAR YEAR 2008 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION [SECTION 1 OF 3] | http://www5.hanford.gov/arpir/?content=detail&AKey=0906180631 | Appendix A - D. History, plume information, extraction data, numerical modeling, and QA/QC for the annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report describes the annual summary and performance evaluation for the three respective OUs. Additional supporting informnation is included in Appendices A through G | H | | P | M | NO | NO |
| DOE/RL-2009-15 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 2009 MAY | DOE-RL | CALENDAR YEAR 2008 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION [SECTION 2 OF 3] | http://www5.hanford.gov/arpir/?content=findpage&AKey=0906180632 | Appendix E. Contaminent data and tables for the annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report describes the annual summary and performance evaluation for the three respective OUs. Additional supporting informnation is included in Appendices A through G | | | Y | | NO | NO |
| DOE/RL-2009-15 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 2009 MAY | DOE-RL | CALENDAR YEAR 2008 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION [SECTION 3 OF 3] | http://www5.hanford.gov/arpir/?content=detail&AKey=0906180633 | Appendix F - G. Contaminent flow charts for the annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report describes the annual summary and performance evaluation for the three respective OUs. Additional supporting informnation is included in Appendices A through G | | | Y | | NO | NO |
| DOE/RL-2009-41 | REV 0 | 100-K | 100-K | 2009 OCT | BL CHARBONEAU DOE/RL | SAMPLING AND ANALYSIS PLAN FOR THE 100-K DECISION UNIT REMEDIAL INVESTIGATION/FEASIBILITY STUDY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0054/1002260413/[1002260413].PDF | This sampling and analysis plan (SAP) supports the remedial investigation (P1)/feasibility study (FS) process for the 100-K Decision Unit. The 1 00-K Decision Unit is located on the Hanford Site in southeastern Washington State and is associated with two source operable units: 100-KR- I and 100-KR-2. The 100-KR-4 Groundwater Operable Unit underlies the two source operable units. This SAP describes the sampling and analysis to be performed associated with environmental investigation borings (boreholes), groundwater monitoring wells, and aquifer tubes. | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-2010-11 | Rev 1 | Hanford | 100-KR-4 | 2010, August | DOE/RL | Hanford Site Groundwater Monitoring And Performance Report for 2009, Volumes 1 & 2 | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/1081672/60626/145203477/145207109/145562868/145570421/DOE-RL-2010-11_-_Rev_01.pdf?nodeid=154210990&vernum=1 | This annual summary report combines the groundwater remedial actions for the Hanford Site at the 100-HR-3, 100-KR-4, 100-NR-2, 200-UP-1 and 200-ZP-1 OUs, with a presentation of groundwater monitoring results for CY2009. THIS NEEDS ELABORATION! | | | | | | |
| DOE/RL-2010-42 | REV 0 | 100-K | 100-KR-2 | 2010 JUL | DOE-RL | REMAINING SITES VERIFICATION PACKAGE PACKAGE FOR THE 100-KR-2 OPERABLE UNIT WASTE SITES 116-KE-6A 116-KE-6B 116-KE-6C AND 116-KE-6D DOCUMENTATION FOR WASTE SITE RECLASSIFICATION FORMS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0058/1008160454/[1008160454].PDF | This Remaining Sites Verification Package (RSVP) summarizes the completion or the remedial action performed on four waste sites in the 100-KR-2 Operable Unit (OU). Remediation of waste sites 1 16-KE-6A, 1 16-KE-6B3, I 16-KE-6C, and I 16-KE-6D was completed by the DOE-RL. The action associated with the removal of these waste sites is focused on the equipment and associated debris. | D,H | G,C,E,T | Y | | NO | NO |
| DOE/RL-2010-43 | REV 1 | 100-K | 100-KR-2 100-KR-4 | 2010 SEPT | DOE-RL | REMAINING SITES VERIFICATION PACKAGE FOR THE 100-KR-2 OPERABLE UNIT WASTE SITE 100-K-4 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0059/1009071207/[1009071207].PDF | This Remaining Sites Verification Package summarizes the completion of the remedial action performed on one waste site in the 100-KR-2 Operable Unit (OU). Remediation of the 100-K-4, 1706 KE Wet Fish Studies Ponds and Valve Pit, was completed by the DOE-RL. Completion of this remedial action provides the basis to change the status of the waste site to "Interim closed out" In accordance with the process and definitions described in the Tri-Party Agreement Handbook Management Procedures. | D,H | G,C,E,T | Y | | NO | NO |
| DOE/RL-2010-43 | REV 0 | 100-K | 100-KR-2 100-KR-4 | 2010 JUL | DOE-RL | REMAINING SITES VERIFICATION PACKAGE FOR THE 100-KR-2 OPERABLE UNIT WASTE SITE 100-KR-4 DOCUMENTATION FOR WASTE SITE RECLASSIFICATION FORM 2010-041 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0058/1008160459/[1008160459].PDF | This Remaining Sites Verification Package summarizes the completion of the remedial action performed on one waste site in the 100-KR-2 Operable Unit (OU). Remediation of the 100-K-4, 1706 KE Wet Fish Studies Ponds and Valve Pit, was completed by the DOE-RL. Completion of this remedial action provides the basis to change the status of the waste site to "Interim closed out" In accordance with the process and definitions described in the Tri-Party Agreement Handbook Management Procedures. | D,H | G,C,E,T | Y | | NO | NO |
| DOE/RL-2010-44 | REV 0 | 100-K | 100-KR-2 | 2010 JUL | DOE-RL | REMAINING SITES VERIFICATION PACKAGE FOR THE 100-KR-2 OPERABLE UNIT WASTE SITES 100-K-37 AND 100-K-38 DOCUMENTATION FOR WASTE SITE RECLASSIFICATION FORMS 2010-038 AND 2010-039 | http://www5.hanford.gov/arpir/?content=findpage&AKey=1008160457 | This Remaining Sites Verification Package (RSVP) summarizes the completion of the remedial action performed on two waste sites in the 100-KR-2 operable unit. Remediation of waste sites 100-K-37 and 100-K-38 was completed by The DOE. Interim remedial actions for these two waste sites in the 100-KR-2 operable unit (OU) have been successfully completed to mitigate releases of hazardous substances to the environment. | D,H | G,C,E,T | Y | | NO | NO |
| DOE/RL-2010-73 | DRAFT B | 100-K | 100-KW | 2010 AUG | DOE-RL | 100-K WEST VADOSE ZONE IN SITU BIO INFILTRATION TREATABILITY TEST PLAN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0059/1009020873/[1009020873].PDF | This document presents a treatability test plan for evaluating the practicality of in situ bioremediation in the vadose zone at the 100-K West Area of the Hanford Site. Specifically, the test is designed to determine if chemically reducing conditions suitable for remediating hexavalent chromium contamination can be established by stimulating anaerobic microbes via infiltration of an organic nutrient solution from the ground surface. | D,P | G,Z,T | Y,S,X,P | A | NO | NO |
| DOE/RL-2011-025 | Rev 0 | 100-Areas | 100-KR-4 | Jun-11 | DOE/RL | CALENDAR YEAR 2010 ANNUAL SUMMARY REPORT FOR THE 100-HR-3 100-KR-4 AND 100-NR-2 OPERABLE UNIT PUMP AND TREAT OPERATION | TBD | This annual summary report discusses the groundwater remedial actions in the 100 Areas, including interim remedial actions at the 100-HR-3, 100-KR-4, and 100-NR-2 Ous. This report describes the annual summary and performance evaluation for the three respective OUs. Section 2.0 discusses the 100-HR-3 OU, Section 3.0 discusses the 100-KR-4 OU and KW Reactor, and Section 4.0 discusses the 100-NR-2 OU. An evaluation of costs is presented in Section 5.0, and the references cited in this report are included as Section 6.0. Additional supporting informnation is included in Appendices A through G. | | | | | | |
| DOE/RL-82-3 | | HANFORD SITE | HANFORD SITE | 1982 NOV | DOE-RL | SITE CHARACTERIZATION REPORT FOR BWIP [SECTION 1 OF 2] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0041/D196000233/D196000233_1808.pdf | The reference location for a repository in basalt for the terminal storage of nuclear wastes on the Hanford Site and the candidate horizons within this reference repository location have been identified and the preliminary characterization work in support of the site screening process has been completed. This Site Characterization Report documents the results of the site screening process, the preliminary site characterization data, the technical issues that need to be addressed, and the plans for resolving these issues. This is a very general document pertaining to the Hanford Site and surrounding areas as a whole. It is also very large, and has been split into two sections. This is section one. | D,H,P | G,Z,E,C,T | | | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-82-3 | | HANFORD SITE | HANFORD SITE | 1982 NOV | DOE-RL | SITE CHARACTERIZATION REPORT FOR BWIP [SECTION 2 OF 2] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0041/D196000239/D196000239_1809.pdf | The reference location for a repository in basalt for the terminal storage of nuclear wastes on the Hanford Site and the candidate horizons within this reference repository location have been identified and the preliminary characterization work in support of the site screening process has been completed. This Site Characterization Report documents the results of the site screening process, the preliminary site characterization data, the technical issues that need to be addressed, and the plans for resolving these issues. This is a very | D,H,P | G,Z,E,C,T | | | YES | NO |
| DOE/RL-89-12 | REV 2 DRAFT A | HANFORD SITE | 100-BC-5 100-HR-3 100-KR-4 300-FF-5 | 1994 OCT | DOE-RL | HANFORD SITE GROUNDWATER PROTECTION MANAGEMENT PLAN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196054770/D196054770_5666_82.pdf | This report documents ground water issues at the Hanford Site. It presents background information and a current status update of the state of the ground water and what plans are in place for water protection. It presents alternatives and goals to further this process and maintain standards. | D,H,P | G,Z,C | Y,S,X,P | M | NO | YES |
| DOE/RL-90-20 | | Hanford Site | Hanford Site | 1999 JAN | Rinne, C.A. ; Curry, R.H. ; Hagan, J.W. ; et.al. | Hanford Site Development Plan | http://www.osti.gov/bridge/purl.cover.jsp?purl=/6231290-a7CsCa/ | The Hanford Site Development Plan (Site Development Plan) is intended to guide the short- and long-range development and use of the Hanford Site. All acquisition, development, and permanent facility use at the Hanford Site will conform to the approved plan. The Site Development Plan also serves as the base document for all subsequent studies that involve use of facilities at the Site. This revision is an update of a previous plan. The executive summary presents the highlights of the five major topics covered in the Site Development Plan: general site information, existing conditions, planning analysis, Master Plan, and Five-Year Plan. 56 refs., 67 figs., 31 tabs. | D,H,P | G,Z,C,T | S,X,P | A,M | Yes | Yes |
| DOE/RL-90-20 | DRAFT A | 100-K | 100-KR-1 | 1990 MAY | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196008756/D196008756_58610776_76527_492.pdf | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-1 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-1 work plan. The goals of the 100-KR-1 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-20 | DRAFT D | 100-K | 100-KR-1 | 1991 SEPT | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196077700 | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-1 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-1 work plan. The goals of the 100-KR-1 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-21 | DRAFT A | 100-K | 100-KR-4 | 1990 MAY | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196008546/D196008546_58610567_76524_552.pdf | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-4 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-4 work plan. The goals of the 100-KR-4 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-21 | DRAFT B | 100-K | 100-KR-1 | 1990 SEPT | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196032331/D196032331_58624796_76737_580.pdf | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-1 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-1 work plan. The goals of the 100-KR-1 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-90-21 | DRAFT C | 100-K | 100-KR-1 | 1991 FEB | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196046699 | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-1 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-1 work plan. The goals of the 100-KR-1 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-21 | DRAFT D | 100-K | 100-KR-4 | 1991 SEPT | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196077172 | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-4 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-4 work plan. The goals of the 100-KR-4 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-21 | DRAFT E | 100-K | 100-KR-4 | 1992 MAY | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196095234 | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-4 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-4 work plan. The goals of the 100-KR-4 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-90-21 | REV 0 | 100-K | 100-KR-4 | 1992 SEPT | DOE-RL | REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196117209 | This work plan and the attached plans establish the objectives, procedures, tasks, and schedule for conducting a CERCLA remedial investigation/ feasibility study for the 100-KR-4 operable unit. All ground water, surface water, river sediment, and aquatic biota investigations for the entire 100-K Area will be carried out in accordance with the 100-KR-4 work plan. The goals of the 100-KR-4 operable unit RI are to provide sufficient information to evaluate future use exposures in the risk assessment, and to develop and evaluate a range of remedial alternatives in the FS that could provide for continued restricted use or an unrestricted future use of the 100-K Area. | D,H,P | G,Z,E,C,T | Y,S,X | M | YES | YES |
| DOE/RL-92-11, PAGE CHANGES | CHANGES TO DRAFT B | 100 AREA | 100 AREA | 1993 NOV | DOE-RL | 100 AREA FEASIBILITY STUDY PHASE I AND II PAGE CHANGES TO DRAFT B | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0036/D196093855/D196093855_8813_80.pdf | This document serves as page changes to Draft B of the 100 Area Feasibility Study. The changes are outlined/summarized in the opening pages followed by the document and its changes. | D,H,P | G,Z,C,E,T | Y,S,X,P | M | NO | NO |
| DOE/RL-92-12 | | 100 AREA | 100 AREAS | 1992 FEB | DOE-RL | SAMPLING AND ANALYSIS OF 100 AREA SPRINGS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196090827/D196090827_8503_110.pdf | This study was initiated, in fulfillment of TPA Milestone M-30-01, to evaluate the impact the Columbia River from contaminated springs and seeps. This was done by ascertaining the concentrations of chemical and radiological constituents discharged through springs into the Columbia River. All 100 Area sites are briefly described. | D,H | G,Z | Y,S,X | A,M | NO | NO |
| DOE/RL-92-28 | DRAFT A | 100 AREA | 100 AREA | 1992 JUNE | DOE-RL | COLUMBIA RIVER IMPACT EVALUATION PLAN | http://www5.hanford.gov/arpir/?content=detail&AKey=D196102620 | The purpose of this report is to satisfy Milestone M-30-02, which is to "Submit a plan (primary document) to EPA and Ecology to determine cumulative health and environmental impacts to the Columbia River, incorporating results obtained under M-30-01." Milestone M-30-01 is, "Submit a report (secondary document) to EPA and Ecology evaluating the impact to the Columbia River from contaminated springs and seeps as described in the operable unit work plans listed in M-30-03." | D,P | Z | Y,X | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-92-28 | DRAFT B | 100 AREA | 100 AREA | 1993 JAN | DOE-RL | COLUMBIA RIVER IMPACT EVALUATION PLAN | http://www5.hanford.gov/arpir/?content=detail&AKey=D196121974 | The purpose of this report is to satisfy Milestone M-30-02, which is to "Submit a plan (primary document) to EPA and Ecology to determine cumulative health and environmental impacts to the Columbia River, incorporating results obtained under M-30-01." Milestone M-30-01 is, "Submit a report (secondary document) to EPA and Ecology evaluating the impact to the Columbia River from contaminated springs and seeps as described in the operable unit work plans listed in M-30-03." | D,P | Z | Y,X | | NO | NO |
| DOE/RL-92-28 | REV 0 | 100 AREA | 100 AREA | 1993 JUN | DOE-RL | COLUMBIA RIVER IMPACT EVALUATION PLAN | http://www5.hanford.gov/arpir/?content=detail&AKey=D196130965 | The purpose of this report is to satisfy Milestone M-30-02, which is to "Submit a plan (primary document) to EPA and Ecology to determine cumulative health and environmental impacts to the Columbia River, incorporating results obtained under M-30-01." Milestone M-30-01 is, "Submit a report (secondary document) to EPA and Ecology evaluating the impact to the Columbia River from contaminated springs and seeps as described in the operable unit work plans listed in M-30-03." | D,P | Z | Y,X | | NO | NO |
| DOE/RL-92-28 | REV 1 | 100 AREA | 100 AREA | 1994 MAR | DOE-RL | COLUMBIA RIVER IMPACT EVALUATION PLAN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196084453/D196084453_7832_23.pdf | The purpose of this report is to satisfy Milestone M-30-02, which is to "Submit a plan (primary document) to EPA and Ecology to determine cumulative health and environmental impacts to the Columbia River, incorporating results obtained under M-30-01." Milestone M-30-01 is, "Submit a report (secondary document) to EPA and Ecology evaluating the impact to the Columbia River from contaminated springs and seeps as described in the operable unit work plans listed in M-30-03." | D,P | Z | Y,X | | NO | NO |
| DOE/RL--93-14 | Revision 0 | 100 Area | 100 Area | 1993 JUN | DOE-RL | Columbia River Impact Evaluation Plan | http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=D5C5D6041C0DF7EAE6AC7EC00E41BCD5?purl=/10169552-2ccTAL/ | This report was prepared to fulfill the requirement of Tri-Party Agreement Milestone M-30-02, which requires a plan to determine cumulative health and environmental impacts to the Columbia River.<br>This plan supplements the CERCLA remedial investigations/feasibility studies (RI/FS) and RCRA facility investigations/corrective measures studies (RFI/CMSs) that will be undertaken in the 100 Area. To support the plan development process, existing information was reviewed and a preliminary<br>impact evaluation based on this information was performed. The purpose of the preliminary i.mpact evaluation was to assess the adequacy of existing data and proposed data collection activities. Based on the results of the evaluation, a plan is proposed to collect additional data or make changes to existing or proposed data collection activities. | D,H, P | Z, E,T | Y,S, X, P | A,M | Yes | NO |
| DOE/RL-93-19 | | 105-KW, 105KE | 105-KW, 105KE | 1993 Mar | USDOE | Application for Approval of Modification for the 105-KE Basin Encapsulation Activity | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10148716&Row=24 | The encapsulation activity will consist of the activities necessary to complete encapsulation of the fuel elements and sludge in 105-KE basin, a storage basin for irradiated N Reactor fuel in Hanford 100-K Area; it currently stores 1,150 MTU of N Reactor irradiated fuel elements transferred to the basin from 1975 through 1989. The application presents the chemical and physical processes relating to the encapsulation activity, source term, expected annual emissions, radionuclide control and monitoring equipment, and projected dose to the maximally exposed individual. | D,H,P | G,Z,E | Y,S | A | NO | NO |
| DOE/RL-93-78 | | 100-K | 100-K | 1993 May | Plincipal Author:<br>H.B. Hathaway<br><br>Contributing Authors:<br>K.S. Daly<br>C.A. Rinne | Hanford Site Development Plan | http://www.osti.gov/bridge/purl.cover.jsp?purl=/10186121-m49IE0/native/ | The Hanford Site Development Plan (HSDP) provides an overview of land use, infra | D, H | T | | M | No | No |
| DOE/RL-93-78 | DRAFT A | 100-K | 100-KR-1 | 1994 FEB | DOE-RL | LIMITED FIELD INVESTIGATION REPORT FOR 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/D196089546/D196089546_58642020_77128_220.pdf | This informational report summarizes the data collection and analysis activities conducted during the 100-KR-1 source operable unit limited field investigation (LFI) and the associated qualitative risk assessment (QRA). The purpose of the report is to evaluate available information and provide sufficient rationale to select sites for implementation of interim remedial measures (IRM). | D,H,P | G,Z,E,T | Y,S,X | A,M | YES | NO |
| DOE/RL-93-78 | REV 0 | 100-K | 100-KR-1 | 1994 AUG | DOE-RL | LIMITED FIELD INVESTIGATION REPORT FOR 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196064658/D196064658_6212_236.pdf | This informational report summarizes the data collection and analysis activities conducted during the 100-KR-1 source operable unit limited field investigation (LFI) and the associated qualitative risk assessment (QRA). The purpose of the report is to evaluate available information and provide sufficient rationale to select sites for implementation of interim remedial measures (IRM). | D,H,P | G,Z,E,T | Y,S,X | A,M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-93-79 | DRAFT A | 100-K | 100-KR-4 | 1993 DEC | DOE-RL | LIMITED FIELD INVESTIGATION REPORT FOR 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196100581 | This limited field investigation (LFI) was conducted to optimize the use of interim remedial measures (IRM) for expediting clean up while maintaining a technically sound and cost-effective program. | D,H,P | G,Z,E,T | Y,S,X | A | YES | NO |
| DOE/RL-93-79 | REV 0 | 100-K | 100-KR-4 | 1994 JUL | DOE-RL | LIMITED FIELD INVESTIGATION REPORT FOR 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196074933/D196074933_58636104_77003_93.pdf | This limited field investigation (LFI) was conducted to optimize the use of interim remedial measures (IRM) for expediting clean up while maintaining a technically sound and cost-effective program. | D,H,P | G,Z,E,T | Y,S,X | A | YES | NO |
| DOE/RL-93-88 | REV 0 | 100 AREA<br>200 AREA<br>300 AREA<br>600 AREA | 100-BC-5<br>100-HR-3<br>100-KR-4<br>300-FF-5 | 1994 FEB | DOE-RL | ANNUAL REPORT FOR RCRA GROUNDWATER MONITORING PROJECTS AT HANFORD SITE FACILITIES FOR 1993 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196094135/D196094135_8819_710.pdf | This report presents the annual hydrogeologic evaluation of 20 Resource Conservation and Recovery Act of 1976 groundwater monitoring projects and one nonhazardous waste facility. This report provides an interpretation of groundwater data collected at the waste management units between October 1992 and September 1993. Recent groundwater quality is also described for the 100, 200, 300, and 600 Areas and for the entire Hanford Site. Widespread contaminants include nitrate, chromium, carbon tetrachloride, tritium, and other radionuclides. Very extensive document. | D,P | G,Z | Y,X,P | A | NO | NO |
| DOE/RL-94-113 | DRAFT A | 100-K | 100-KR-4 | 1994 OCT | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL MEASURE AT 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196033954/D196033954_4386_23.pdf | This Proposed Plan introduces the preferred alternative for interim remedial action to address groundwater contamination at the 100-KR-4 Operable Unit, located along the Columbia River. In addition, this plan includes a summary of other Interim Remedial Alternatives analyzed for the 100-KR-4 Operable Unit. | D,H,P | Z,E | Y,S,X,P | | YES | YES |
| DOE/RL-94-119 | DRAFT A | 100-K | 100-KR-1 | 1995 MAY | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL MEASURES AT 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196024594/D196024594_3627_18.pdf | This proposed plan identifies the preferred alternative for interim remedial measures for remedial action of radioactive liquid waste disposal sites that include contaminated soils and structures at the 100-KR-1 Operable Unit, located at the Hanford Site. It also summarizes other remedial alternatives evaluated for interim remedial measures in this Operable Unit. | D,P | Z,E | Y,S,X | | YES | YES |
| DOE/RL-94-119 | REV 0 | 100-K | 100-KR-1 | 1995 AUG | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL MEASURES AT 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195066198/D195066198_1462.pdf | This proposed plan identifies the preferred alternative for interim remedial measures for remedial action of radioactive liquid waste disposal sites that include contaminated soils and structures at the 100-KR-1 Operable Unit, located at the Hanford Site. It also summarizes other remedial alternatives evaluated for interim remedial measures in this Operable Unit. | D,P | Z,E | Y,S,X | | YES | YES |
| DOE/RL-94-119 | REV 1 | 100-K | 100-KR-1 | 1995 SEPT | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL MEASURES AT 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195066603/D195066603_1619.pdf | This proposed plan identifies the preferred alternative for interim remedial measures for remedial action of radioactive liquid waste disposal sites that include contaminated soils and structures at the 100-KR-1 Operable Unit, located at the Hanford Site. It also summarizes other remedial alternatives evaluated for interim remedial measures in this Operable Unit. | D,P | Z,E | Y,S,X | | YES | YES |
| DOE/RL-94-151 | | 100-K | 100-KR02 | 1995 FEB | DOE-RL | APPROACH AND PLAN FOR CLEANUP ACTIONS IN 100-KR-2 OU OF HANFORD SITE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196036787/D196036787_4679_17.pdf | This Focus Package has two purposes: to describe a new approach and activities needed to reach decision on cleanup actions for waste sites in the 100-KR-2 Operable Unit, and to invite public participation into the planning process. | D,P | | Y | | NO | YES |
| DOE/RL-94-151 | REV 0 | 100-K | 100-KR-2 | 1995 FEB | DOE-RL | APPROACH AND PLAN FOR CLEANUP ACTIONS IN 100-KR-2 OU OF HANFORD SITE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196041208/D196041208_4895_19.pdf | This Focus Package has two purposes: to describe the new approach and activities needed to reach a decision on-cleanup actions for the 100-KR-2 Operable Unit, andto invite public participation into the planning process. | D,P | Z | Y | M | YES | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-94-48 | REV 0 | 100-K | 100-KR-4 | 1995 AUG | DOE-RL | 100-KR-4 OU FOCUSED FEASIBILITY STUDY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196006899/D196006899_2376.pdf | This focused feasibility study (FFS) report presents a detailed analysis of alternatives for an interim remedial measure (IRM). The IRM addresses groundwater contamination in the 100-KR-4 Operable Unit. The focus of the FFS is chromium, a waste constituent that is transported by groundwater flow from the 100-K Area into the Columbia River. Ecological receptors in the river ecosystem may be exposed to chromium concentrations that exceed criteria established for the protection of aquatic life. | D,H,P | G,Z,C,E,T | Y,S,X,P | A,M | YES | YES |
| DOE/RL-94-48 | DRAFT A | 100-K | 100-KR-4 | 1994 OCT | DOE-RL | 100-KR-4 OU FOCUSED FEASIBILITY STUDY REPORT | http://www5.hanford.gov/arpir/?content=detail&AKey=D196055572 | This focused feasibility study (FFS) report presents the detailed analysis of alternatives for interim remedial measures (IRM) for the 100-KR-4 Operable Unit. The FFS is anevaluation of a limited number of alternatives that are focused to the scope of the response action planned. This draft is less focused than Revision 0 of this report. | D,H,P | G,Z,C,E,T | Y,S,X,P | A,M | YES | YES |
| DOE/RL-94-61 | DRAFT A | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1994 SEPT | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY | http://www5.hanford.gov/arpir/?content=detail&AKey=D196060693 | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. | D,H,P | G,Z,E | Y,S,X | M | NO | YES |
| DOE/RL-94-61 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1995 AUG | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196006751/D196006751_2364.pdf | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. | D,H,P | G,Z,E | Y,S,X | M | NO | YES |
| DOE/RL-94-61 | REV 0, VOL 1 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1995 JUN | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY [SECTION 1 OF 2] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196015921/D196015921_3026_442.pdf | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. (PART ONE OF TWO) | D,H,P | G,Z,E | Y,S,X | M | NO | YES |
| DOE/RL-94-61 | REV 0, VOL 1 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1995 JUN | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY [SECTION 2 OF 2] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D196016522 | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. (PART TWO OF TWO) | D,H,P | G,Z,E | Y,S,X | M | NO | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-94-61 | DRAFT B | 100 AREA | 100 AREAS | 1995 MAR | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY REPORT PROCESS DOCUMENT [SECTION 1 OF 2] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196025276/D196025276_3649_520.pdf | The purpose of this 100 Area Source Operable Unit FFS is to provide decision makers sufficient information to support selection of interim remedial alternatives for these IRM candidate waste sites within the 100 Areas. The scope of this 100 Area Source Operable Unit FFS is limited to the high priority (IRM candidate) source waste sites. The low priority source waste sites, including the potentially impacted river sediments, are not considered candidates for interim remedial measures and are being addressed under the final remedy selection pathway of the Hanford Past Practice Strategy. In addition, groundwater in the 100 Area is being addressed in separate groundwater FFSs. | D,H,P | G,Z,E,C,T | Y,S,X,P | A,M | YES | YES |
| DOE/RL-94-61 APPENDIX K | DRAFT A | 100-K | 100-KR-2 | 1995 AUG | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY 100-KR-2 OU APPENDIX K | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196008295/D196008295_2592.pdf | Appendix K to the 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY. This operable unit-specific focused feasibility study (FFS) provides sufficient information to select interim remedial measures (IRM) for sites associated with the 100-KR-2 Operable Unit. Site profiles have been developed for each waste site; these site profiles are used for the plug-in approach in this Appendix. The plug-in approach is based on the same land use and groundwater use scenario as used in the Process Document. | D,P | G,E | Y,S,X | A,M | YES | YES |
| DOE/RL-94-61 APPENDIX M | | 100-K | 100-KR-1 | 1995 SEPT | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY 100-KR-1 OU APPENDIX M | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196005458/D196005458_2214.pdf | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. | D,H,P | G,Z,E | Y,S,X | M | NO | YES |
| DOE/RL-94-66 | DRAFT A | 100-K | 100-KR-1 | 1997 OCT | DOE-RL | 100 AREA SOURCE OU FOCUSED FEASIBILITY STUDY 100-KR-1 OU APPENDIX M | http://www5.hanford.gov/arpir/?content=detail&AKey=D198019475 | This 100-KR-1 OU Focused Feasibility Study evaluates the remedial alternatives for interim action at high-priority (candidates for interim remedial measures) waste sites within the 100-KR-1 Operable Unit, and provides the information needed for the timely selection of the most appropriate interim action at each waste site. This FFS presents the following: The 100-KR-1 OU individual waste site information, the development of individual site profiles, identification of representative groups for individual waste sites, a comparison against the applicability criteria, identification of appropriate enhancements for the alternatives, a discussion of the deviations and/or enhancements of an alternative, and detailed analyses for waste sites that deviate from the representative waste-site group alternatives. | D,H,P | G,Z,E | Y,S,X | M | NO | YES |
| DOE/RL-94-66 | DRAFT A | 100-K | 100-KR-1 | 1994 NOV | DOE-RL | 100-KR-1 OU FOCUSED FEASIBILITY STUDY REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196055079/D196055079_5674_140.pdf | The standard Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Feasibility Study (FS) includes development and screening of alternatives and the detailed analysis of alternatives. This focused feasibility study (FFS) constitutes the remedial alternatives initially developed and screened in the 100 Area Feasibility Study Phases 1 and 2 (DOE-RL 1993a). | D,H,P | E | Y,X | A,M | NO | YES |
| DOE/RL-94-77 | | HANFORD SITE | HANFORD SITE | 1994 AUG | DOE-RL | TRITIATED WASTE WATER TREATMENT AND DISPOSAL EVALUATION FOR 1994 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196067109/D196067109_6372_80.pdf | This report is the first response to the Hanford Federal Facility Agreement and Consent order Milestone M-26-05A, Tritiated Wastewater Treatment Evaluation. It includes timely information, summaries, analyses, and discussions on a number of aspects and issues regarding tritium at the Hanford Site.One well at the K Reactor area gave a tritium level of 1,690,000 pCi/L. The shapes of the K and N tritium groundwater plumes suggest-that they are spreading in an easterly direction away from the reactors and the river. Although the edge of the plume is | H | | Y,X,P | A | YES | NO |
| DOR/RL-94-113 | Rev 0 | 100-K Area | 100-KR-4 | 1995, SEPTEMBER | DOE/RL | Proposed Plan for Interim Remedial Measures at the 100-KR-4 Operable Unit | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/60628/282741/139609994/141345113/141420449/141363550/141359925/141363556/141368804/141126414/D196007167.pdf?nodeid=141204822&vernum=2 | This Proposed Plan identifies the preferred alternative for an interim remedial measure at the 100-KR-4 Operable Unit, located at the Hanford Site. It also summarizes other alternatives evaluated for interim remedial measures in this ioerable unit. The preffered alternative presented in this Proposed Plan is to remove contaminated groundwater from the 100-KR_4 OU , treat by ion exchange and dispose of treated water by using upgradient injection wells to return it ti the aquifer. The alternative will protect teh Columbia River by environmentl from toxic hexavalent chromium. | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-96-101 | REV 3 | 100-K | 100-KR-2 | 2002 DEC | DOE-RL | RADIOACTIVE AIR EMISSION NOTICE OF CONSTRUCTION FUEL REMOVAL FOR 105-KE BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D04618366/D0461836.PDF | The purpose of this Notice of Construction modification is to describe changes in the 105K East Basin annual possession quantity of spent nuclear fuel attributed to the SNF inventory being received from the F and H Reactors and residual 105KE Reactor single-pass reactor fuel that may be discovered in the 105 KE Basin as sludge and debris removal operations progress. This NOC modification also incorporates changes in the Fuel Transfer System annex design that have been previously approved by a May 7, 2002, NOC Application/Permit Revision. | D,P | Z | Y,X | A | NO | NO |
| DOE/RL-96-101 | REV 2 | 100-K | 100-KR-2 | 2001 SEPT | DOE-RL | RADIOACTIVE AIR EMISSION NOTICE OF CONSTRUCTION FUEL REMOVAL FOR 105-KE BASIN | http://www5.hanford.gov/arpir/?content=detail&AKey=D8835653 | The purpose of this NOC modification is to describe the process by which the spent nuclear fuel (SNF) will be transferred from the 105-K East (105-KE) Basin to the 105-K West (105-KW) Basin and incorporate text updates that had been earlier approved by NOC/Permit Revisions Forms. | D | Z | Y | A | NO | NO |
| DOE/RL-96-107 | | 105-KE | 105-KE | 1997 FEB | Kamberg, L.D., Fluor Daniel Hanford | Radioactive air emissions notice of construction fuel removal for 105-KE basin | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=325667&Row=3 | This document serves as a notice of construction (NOC), pursuant to the requirements of Washington Administrative Code (WAC) 246-247-060, and as a request for approval to construct pursuant to 40 Code of Federal Regulations (CFR) 61.96 for the modifications, installation of new equipment, and fuel removal and sludge relocation activities at 105-KE Basin. The 105-KE Basin has leaked radiological contaminated water to the soil beneath the basin in the past most likely at the construction joint between the foundation of the basin and the foundation of the reactor. This NOC describes modifications, the installation of new equipment, and fuel removal and sludge relocation activities expected to be routine in the future. Debris removal activities described in this NOC will supersede the previously approved NOC (DOE/RL-95-65). | D,H,P | G,Z,E | Y,X,P | M | NO | NO |
| DOE/RL-96-17 | REV 0 | 100 AREA | 100-HR-3<br>100-KR-4 | 1996 NOV | DOE-RL | MITIGATION ACTION PLAN FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT PROJECT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197166514/D197166514_15643_19.pdf | This pump and treat project involves drilling 22 wells, improving access roads to existing and new wells, laying connecting pipes, and constructing groundwater treatment facilities in the 100-KR-4 and 100-HR-3 OUS. This Mitigation refers to a series of prioritized actions designed to minimize or lessen potential project impacts on cultural or natural resources. | D,H | E | | A | YES | YES |
| DOE/RL-96-22 | Rev. 5, Draft 8 Redline | 100-BC-1<br>100-BC-2<br>100-DR-1<br>100-DR-2<br>100-FR-2 | 100-BC-1<br>100-BC-2<br>100-DR-1<br>100-DR-2<br>100-FR-2 | 2004 FEB | NA-1 | REMEDIAL DESIGN REPORT REMEDIAL ACTION WORK PLAN FOR 100 AREA | http://www5.hanford.gov/arpir/?content=detail&AKey=D5452664 | This document addresses the remedial designs and remedial actions for high-priority waste sites in the 100-B/C,100-D, 100-1- 100-F, and 100-K Areas, and the 100_IU-2, 100-N-6, and 200-CW-3 OUs. It is expected that this document will form the basis for remedial actions at contaminated sites across the 100 Area. | D,H,P | G,Z,E,T | Y,S,P, | A | Yes | Yes |
| DOE/RL-96-22 | REV 4 DRAFT A | 100 AREA | 100-C-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-HR-1, 100-FR-1, 100-FR-2, 100-KR-1, 100-IU-2, and 100-IU-6 | 2003 JUN | DOE-RL | 100 AREA REMEDIAL ACTION SAMPLING AND ANALYSIS PLAN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0017/D2229403/D2229403_21325_160.pdf | Heavily marked revision. Purpose: This sampling and analysis plan presents the rationale and strategies for the sampling, onsite measurements, and analyses that will be conducted during the remediation of the 100 Area waste sites. These waste sites are past-practice waste units located at the 100-C-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-HR-1, 100-FR-1, 100-FR-2, 100-KR-1, 100-IU-2, and 100-IU-6 Operable Units. | D,H,P | G,Z | Y,S,X,P | | NO | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-96-44 | Rev. 4 Draft B Redline | 100-BC-1<br>100-BC-2<br>100-DR-1<br>100-DR-2<br>100-FR-1 | 100-BC-1<br>100-BC-2<br>100-DR-1<br>100-DR-2<br>100-FR-1 | 2004 FEB | NA-1 | 100 AREA REMEDIAL ACTION SAMPLING AND ANALYSIS PLAN | http://www5.hanford.gov/arpir/?content=detail&AKey=D5453064 | This sampling and analysis plan presents the rationale and strategies for the sampling, onsite measurements, and analyses that will be conducted on 100 Area waste sites excluding burial grounds, which are addressed in a separate plan These waste sites are past-practice waste units located at the 100-13C-1, 100-BC-2,100-DR-1,100-DR-2, 100-HR-1, 100-HR-2, 100-FR-1, 100-FR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units. The sites are being remediated in accordance with the following records of decision LRODs) and ROD amendment: Interim Action Record of Decision for the 100-BC-1, 100-DR-1, and 100-HR-I, Operable Units, Hanford Site, Benton County, Washington (hereinafter referred to as the Interim Action ROD)_(EPA 1995); Amendment to the Interim Action Record of pecision for the 100-BC-1. 100-DR-1, and 100-HR-1 Operable Units (hereinafter referred to as the ROD Amendment) (EPA 1997); and Interim Action Record of Decision for the 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-1 100-FR-2 100-HR-I 100-HR-2 100-KR-1 100-KR-2 I00-1212. 1 DO-ICI 6. and 200-CW-3 Operable Units, Hanford Site. Benton County Washington (hereinafter referred to as the Remaining Sites ROD) (EPA 1999b). | D,H,P | | Y,S,C, | A | Yes | NO |
| DOE/RL--96-44 | REV 0 | 100 AREA | 100-HR-3<br>100-KR-4 | 1996 NOV | DOE-RL | TREATMENT PLAN FOR PROTECTION OF CULTURAL RESOURCES FOR 100-KR-4 PUMP AND TREAT PROJECT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197166550/D197166550_15652_16.pdf | Current interim remediation activities planned for this part of the 100-K Area are focused on protecting the Columbia River by pumping the chromium contaminated groundwater to a treatment system. The treated water will then be pumped back into the ground upstream of the trench. This document describes how the planned construction activities have been modified to protect the extremely sensitive cultural resources in the area. | D,H | E | Y,S,X | | NO | NO |
| DOE/RL-96-84 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 | 1996 SEPT | DOE-RL | REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU INTERIM ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D196246917 | This document is a combination remedial design report and remedial action work plan for the 100-HR-3 and 100-KR-4 Operable Units' interim action. The interim action described in this document represents the first phase of an ongoing program to address groundwater contamination in each operable unit. Preparation of this document is required by the interim action record of decision (interim action ROD) issued in April 1996 by the EPA and Ecology. This document describes the design basis, provides a description of the interim action, and | D,P | G,Z,T | Y,S,X,P | A,M | YES | YES |
| DOE/RL-96-84 | REV 0 DRAFT A | 100 AREA | 100-HR-3 100-KR-4 | 2003 APR | RF RAIDL FLUOR | REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU INTERIM ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D1348764/D1348764.PDF | The 100-HR-3 and 100-KR-4 Pump and Treat System designs were published in 1996 in Rev. 0 of this document. This revision, Rev. 0-A includes an updated requirement for an annual report on page 5-10 and an addendum with a summary of major modifications made to the systems since they came on line in 1997. The original document is a combination remedial design report and remedial action work plan for the 100-HR-3 and 100-Kr-4 OUs' interim action. The interim action described in this document represents the first phase of an ongoing program to address groundwater contamination in each OU. This copy contains executive summary and addendum. | D,P | | Y,X | | NO | NO |
| DOE/RL-96-44 | ? | 100-K | 100-K | 1996 NOV | DOE | Treatment Plan for Protection of Cultural Resources for the 100-KR-4 Pump-and-Treat Project | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=663521&Row=17 | The 100-K Reactor Area is located on the southern shore of the Columbia River at the northern edge of the Hanford Site. Occasionally, reactor equipment would malfunction causing radioactive contamination in the cooling water. Current interim remediation activities planned for this part of the 100-K Area are focused on protecting the Columbia River by pumping the chromium contaminated groundwater to a treatment system. This document describes how the planned construction activities have been modified to protect the extremely sensitive cultural resources in the area. | D,H | G,E | | A | NO | NO |
| DOE/RL-96-90 | DRAFT A | 100 AREA | 100-HR-3 100-KR-4 | 1996 DEC | DOE-RL | INTERIM ACTION MONITORING PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197046179/D197046179_14902_102.pdf | The purpose of the interim action is to address groundwater contamination that poses a threat to human health or the environment. This interim action will achieve three remedial action objec tives that were identified in the interim action ROD: protect aquatic receptors in the river bottom substrate from contaminants in groundwater entering the Columbia River, 2. protect human health by preventing exposure to contaminants in the groundwater, and 3. provide information that will lead to the final remedy. | D,H | | | M | YES | NO |
| DOE/RL-97-01 | REV 0 | 100 AREA | 100-HR-3 100-KR-4 | 1997 APR | DOE-RL | INTERIM ACTION MONITORING PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D197194770 | The purpose of the interim action is to address groundwater contamination that poses a threat to human health or the environment. This interim action will achieve three remedial action objec tives that were identified in the interim action ROD: protect aquatic receptors in the river bottom substrate from contaminants in groundwater entering the Columbia River, 2. protect human health by preventing exposure to contaminants in the groundwater, and 3. provide information that will lead to the final remedy. | D,H | | | M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-97-01 | DRAFT A | 100 AREA | 100-HR-3<br>100-KR-4 | 1997 JAN | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FIR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0029/D197142919/D197142919_15573_13.pdf | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that water at OU-specific pump-and-treat systems to remove chromium before the water is injected back into the aquifer. This plan supercedes previously issued waste control plans or waste management plans for the 100-HR-3 and 100-KR-4 OUs. | D,P | Z | Y,X | M | NO | NO |
| DOE/RL-97-01 | REV 0 | 100 AREA | 100-HR-3<br>100-KR-4 | 1997 MAR | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FOR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D197198424 | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that water at OU-specific pump-and-treat systems to remove chromium before the water is injected back into the aquifer. This plan supercedes previously issued waste control plans or waste management plans for the 100-HR-3 and 100-KR-4 OUs. | D,P | Z | Y,X | M | NO | NO |
| DOE/RL-97-01 | REV 2 | 100 AREA | 100-HR-3<br>100-KR-4 | 2000 JUN | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FOR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D8406862 | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that water at OU-specific pump-and-treat systems to remove chromium before the water is injected back into the aquifer. This plan supercedes previously issued waste control plans or waste management plans for the 100-HR-3 and 100-KR-4 OUs. | D,P | Z | Y,X | M | NO | NO |
| DOE/RL-97-01 | REV 3 | 100 AREA | 100-HR-3<br>100-KR-4 | 2000 AUG | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FOR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D8479562 | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that | D,P | Z | Y,X | M | NO | NO |
| DOE/RL-97-01 | REV 4 | 100 AREA | 100-HR-3<br>100-KR-4 | 2003 MAY | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FOR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D2495486 | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that water at OU-specific pump-and-treat systems to remove chromium before the water is injected back into the aquifer. This plan supercedes previously issued waste control plans or waste management plans for the 100-HR-3 and 100-KR-4 OUs. | D,P | Z | Y,X | M | NO | NO |
| DOE/RL-97-1047 | REV 5 | 100 AREA | 100-HR-3<br>100-KR-4 | 2007 AUG | JV BORGHESE, DOE-RL | INTERIM ACTION WASTE MANAGEMENT PLAN FOR 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0045/DA01311800/DA01311800_73712034_79209_36.pdf | This interim action waste management plan establishes the requirements for the management and disposal of waste associated with the interim actions as stipulated in the 1996 Declaration of the Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units. These interim actions have been deemed necessary to protect human and ecological receptors where groundwater is discharged from the 100-HR-3 and 100-KR-4 Groundwater OUs. The interim action involves pumping groundwater from selected well locations in each OU and treating that water at OU-specific pump-and-treat systems to remove chromium before the water is injected back into the aquifer. This plan supercedes previously issued waste control plans or waste management plans for the 100-HR-3 and 100-KR-4 OUs. | D,P | Z | Y,X | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-97-28 | | HANFORD SITE | HANFORD SITE | 2007 OCT | DOE-RL | HANFORD SITE HISTORIC DISTRICT, HISTORY OF THE PLUTONIUM PRODUCTION FACILITIES 1943-1990 | RL - 623.4511 | THE PURPOSE FOR THIS BOOK, AS IT STATES, IS TO PRESERVE WORDS, DIAGRAMS, AND PHOTOGRAPHS OF STRUCTURES AT THE SITE DURING THE COLD WAR BECAUSE MANY MAY HAVE BEEN OR WILL BE DEMOLISHED DUE TO SAFETY CONCERNS AND LACK OF FUTURE USE | D,H,P | G,E | Y,S,X | | NO | NO |
| DOE/RL-97-28 | REV 2 | 100-K | 100-KR-2 | 2001 SEPT | DOE-RL | RADIOACTIVE AIR EMISSION NOTICE OF CONSTRUCTION FUEL REMOVAL FOR 105-KW BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0021/D8835639/D8835639_29201_118.pdf | The purpose of this NOC modification is to describe the process by which the spent nuclear fuel (SNF) will be transferred from the 105-K East (105-KE) Basin to the 105-K West (105-KW) Basin and incorporate text updates that had been earlier approved by NOC/Permit Revisions Forms. | D | Z | Y | A | NO | NO |
| DOE/RL--97-28 | | 100-K | 100-KR-2 | 1997 April | NA-1, DOE-RL | RADIOACTIVE AIR EMISSIONS NOTICE OF CONSTRUCTION FUEL REMOVAL FOR 105-KW BASIN | http://www5.hanford.gov/arpir/?content=findpage&AKey=D197234626 | This report describes the proposed action which consists of the installation, operation, and maintenance of fuel removal and sludge relocation equipment, as well as debris removal and minor basin modifications. | D, P | | Y, S, X | | | |
| DOE/RL-97-83 | DRAFT A | 100 AREA | 100 AREA | 1997 NOV | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL ACTIONS AT 100 AREA REMAINING SITES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0027/D198019232/D198019232_17249_35.pdf | This Proposed Plan identifies the preferred alternative for interim remedial actions at waste sites in the 100 Areas. The waste sites subject to this Proposed Plan are referred to as the 100 Area Remaining Sites and may consist of radioactively and chemically contaminated soils, structures, and associated debris located within 100 Area Operable Units on the Hanford Site. This contamination may present a risk to human health or the environment. | D,P | Z | Y,X | | YES | YES |
| DOE/RL-97-83 | Rev.0 | 105-KW | 105-KW | 1997 MAY | Hays, C.B. | Radioactive air emissions notice of construction fuel removal for 105-KW Basin | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=10149034&Row=8 | This document serves as a Notice of Construction (NOC), pursuant to the requirements of Washington Administrative Code (WAC) 246-247-060, and as a request for approval to construct, pursuant to 40 Code of Federal Regulations (CFR) 61.96, for the modifications, installation of new equipment, and fuel removal and sludge relocation activities at 105-KW Basin. The proposed modifications described are scheduled to begin in calendar year 1997. | D,H,P | Z | | A | YES | NO |
| DOE/RL-97-96 | REV 0 | 100 AREA | 100 AREA | 1998 OCT | DOE-RL | PROPOSED PLAN FOR INTERIM REMEDIAL ACTIONS AT 100 AREA REMAINING SITES | http://www5.hanford.gov/arpir/?content=detail&AKey=D198209197 | This Proposed Plan identifies the preferred alternative for interim remedial actions at waste sites in the 100 Areas. The waste sites subject to this Proposed Plan are referred to as the 100 Area Remaining Sites and may consist of radioactively and chemically contaminated soils, structures, and associated debris located within 100 Area Operable Units on the Hanford Site. This contamination may present a risk to human health or the environment. | D,P | Z | Y,X | | YES | YES |
| DOE/RL--98-02 | Rev. 0 | 100-K | 100-K | 1998 Apr | DOE | 100-HR-3 AND 100-KR-4 OU INTERIM ACTION PERFORMANCE EVALUATION REPORT | http://www5.hanford.gov/arpir/?content=findpage&AKey=D198088271 | Groundwater interim remedial actions are being executed to remediate groundwater at the 100-HR-3 and 100-KR-4 Operable Units (OUs) as stipulated in Record of Decision for the 100-HR-3 and 100-KR-4 Operable Units (ROD) (EPA 1996). Human health risks are minimized by maintaining institutional controls that prevent access to contaminated groundwater. | D,H,P | Z | Y,S,X,P | A/M | YES | NO |
| DOE/RL-98-03 | Rev. 0 | 105-KW | 105-KW | 1998 FEB | Kamberg, L.D. | Radioactive Air Emissions Notice of Construction for the 105-KW Basin integrated water treatment system filter vessel sparging vent | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=341285&Row=6 | This document serves as a notice of construction (NOC), pursuant to the requirements of Washington Administrative Code (WAC) 246-247-060, and as a request for approval to construct, pursuant to 40 Code of Federal Regulations (CFR) 61.07, for the Integrated Water Treatment System (IWTS) Filter Vessel Sparging Vent at 105-KW Basin. The purpose of the modification described herein is to provide operational flexibility for the IWTS at the 105-KW basin. The proposed modification is scheduled to begin in calendar year 1998. | D,H | Z | S,X | A | NO | NO |
| DOE/RL-98-18 | | 100-K | 100-K | 1998 Apr | unknown | MANAGEMENT AND INTEGRATION OF HANFORD SITE GROUNDWATER AND VADOSE ZONE ACTIVITIES DOCUMENT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0026/D198132550/D198132550_17931_91.pdf | The U.S. Department of Energy (DOE) Richland Operations Office (RL) places a very high priority on the protection of groundwater and the Columbia River from contaminants generated at the Hanford Site. In this regard, RL recognizes a need to develop an effective site-wide strategy to assess the impacts of Hanford Site contaminants in the vadose zone (the geologic area between the land surface and the underlying water table) and groundwater beneath the Hanford Site. | D,H,P | | Y,S,P | A/M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-98-36 | DRAFT B | 100 AREA | 100 AREA | 1999 MAR | DOE-RL | 100 AREA BURIAL GROUND FOCUSED FEASIBILITY STUDY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0024/D199146236/D199146236_19897_238.pdf | This document provides the results of a focused feasibility study (FFS) that was conducted to evaluate alternatives for the remediation of 45 burial grounds located in the 100 Areas of the Hanford Site. Three remedial alternatives were developed and evaluated for their ability to mitigate the potential risks to human health and the environment that are presented by the 100 Area Burial Grounds. | D,H,P | G,Z,C,E,T | Y,S,X | A,M | YES | YES |
| DOE/RL-98-66 | Rev. 0 | 105-KW, 105KE | 105-KW, 105KE | 1998 May | DOE | 105-K BASIN 1997 DEBRIS REPORT | http://www5.hanford.gov/arpir/?content=findpage&AKey=D198181863 | The purpose of this report is to describe the quantities, character, and management of 105-K Basins debris managed in calendar year 1997. This report applies only to the debris waste currently being generated at the 105-KE and 105-KW Basins, and that waste which will be generated as the result of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 removal action being planned. | D,P | | S,X | A | NO | NO |
| DOE/RL-98-66 | DRAFT A | 100-K | 100-KR-2 | 1998 NOV | DOE-RL | FOCUSED FEASIBILITY STUDY FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199038454 | This Focused Feasibility Study (FFS) evaluates alternatives for remediation of the K East (KE) and K West (KW) Basins, located in the 100-K Area of the Hanford Site. The basins contain spent nuclear fuel (SNF) and contaminated sludge, water, and debris. The SNF is deteriorating under the current storage conditions. In addition, there have been at least two documented leaks of contaminated water from the basins into the underlying soil and groundwater. | D,P | Z | Y,S,X | M | YES | YES |
| DOE/RL-98-66 | DRAFT B | 100-K | 100-KR-2 | 1999 MAR | DOE-RL | FOCUSED FEASIBILITY STUDY FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199105441 | This Focused Feasibility Study (FFS) evaluates alternatives for remediation of the K East (KE) and K West (KW) Basins, located in the 100-K Area of the Hanford Site. The basins contain spent nuclear fuel (SNF) and contaminated sludge, water, and debris. The SNF is deteriorating under the current storage conditions. In addition, there have been at least two documented leaks of contaminated water from the basins into the underlying soil and groundwater. | D,P | Z | Y,S,X | M | YES | YES |
| DOE/RL-98-66 | DRAFT C | 100-K | 100-KR-2 | 1999 APR | DOE-RL | FOCUSED FEASIBILITY STUDY FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199105443/D199105443_19500_216.pdf | This Focused Feasibility Study (FFS) evaluates alternatives for remediation of the K East (KE) and K West (KW) Basins, located in the 100-K Area of the Hanford Site. The basins contain spent nuclear fuel (SNF) and contaminated sludge, water, and debris. The SNF is deteriorating under the current storage conditions. In addition, there have been at least two documented leaks of contaminated water from the basins into the underlying soil and groundwater. | D,P | Z | Y,S,X | M | YES | YES |
| DOE/RL-98-66 | REV 0 | 100-K | 100-KR-2 | 1999 APR | DOE-RL | FOCUSED FEASIBILITY STUDY FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199091628 | This Focused Feasibility Study (FFS) evaluates alternatives for remediation of the K East (KE) and K West (KW) Basins, located in the 100-K Area of the Hanford Site. The basins contain spent nuclear fuel (SNF) and contaminated sludge, water, and debris. The SNF is deteriorating under the current storage conditions. In addition, there have been at least two documented leaks of contaminated water from the basins into the underlying soil and groundwater. | D,P | Z | Y,S,X | M | YES | YES |
| DOE/RL-98-71 | Revision 0 | 100-KR-2 | 100-KR-2 | 2005 JAN | NA-1 | ADDENDUM TO FOCUSED FEASIBILITY STUDY FOR K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D7074746 | The Focused Feasibility Study for the K Basins Interim Remedial Action, DOE/RL-98-66, Rev. 0, (FFS) was issued in 1999. The 1999 FFS, served to identify the requirements under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 for remediation at the K East (KE) and K West (KW) Basins to mitigate threats from basin contents. Since issuance in 1999 of the FFS and the CERCLA Record of Decision (ROD) for the K Basins Interim Remedial Action (EPA 1999), new sludge characterization data, sludge treatment processes information, and waste lifecycle management information have become available. This information facilitates new remedy alternatives that better address K Basin remedial action objectives (RAO). This Addendum to the 1999 FFS has been prepared to respond to this new information and serves as the basis for amending the 1999 CERCLA ROD for this action. This Addendum has been prepared pursuant to CERCLA requirements to evaluate alternatives and implementing requirements [40 Code of Federal Regulations(CFR) 300]. The new remedy alternatives will be presented for public review and comment in a new Proposed Plan for an Amendment to the K Basins Interim Remedial Action Record of Decision, DOE/RL-2004-48, Revision 0, (Proposed Plan). After public comment, the selected remedies will be identified by U.S: Department of Energy and the U.S. Environmental Protection Agency (EPA)in an amendment to the K Basins Interim Remedial Action ROD. | D,H,P | | S,X | A | Yes | Yes |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-98-71 | DRAFT A | 100-K | 100-KR-2 | 1998 NOV | DOE-RL | PROPOSED PLAN FOR 100-K BASIN INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199038441 | This Proposed Plan t identifies the preferred alternative for interim remedial action at the K East (KE) and K West (KW) Basins located in the 100-K Area. In addition, the Plan includes summaries of other alternatives analyzed for the basins. | D,P | | Y,X | | YES | YES |
| DOE/RL-98-71 | DRAFT B | 100-K | 100-KR-2 | 1999 MAY | DOE-RL | PROPOSED PLAN FOR 100-K BASIN INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199105367 | This Proposed Plan t identifies the preferred alternative for interim remedial action at the K East (KE) and K West (KW) Basins located in the 100-K Area. In addition, the Plan includes summaries of other alternatives analyzed for the basins. | D,P | | Y,X | | YES | YES |
| DOE/RL-98-71 | DRAFT C | 100-K | 100-KR-2 | 1999 APR | DOE-RL | PROPOSED PLAN FOR 100-K BASIN INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199105368 | This Proposed Plan t identifies the preferred alternative for interim remedial action at the K East (KE) and K West (KW) Basins located in the 100-K Area. In addition, the Plan includes summaries of other alternatives analyzed for the basins. | D,P | | Y,X | | YES | YES |
| DOE/RL-99-12 | REV 0 | 100-K | 100-KR-2 | 1999 APR | DOE-RL | PROPOSED PLAN FOR 100-K BASIN INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199091194 | This Proposed Plan t identifies the preferred alternative for interim remedial action at the K East (KE) and K West (KW) Basins located in the 100-K Area. In addition, the Plan includes summaries of other alternatives analyzed for the basins. | D,P | | Y,X | | YES | YES |
| DOE/RL-99-12 | DRAFT A | 100 AREA | 100-BC-1 100-DR-1 100-HR-1 100-KR-2 | 1999 FEB | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR DISPOSITION OF STANDING LEGACY WASTE IN 105-B B-REACTOR 105-D 105-H 105-KE 105-KW REACTOR BUILDINGS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D199105357/D199105357_58686324_78644_84.pdf | This sampling and analysis plan (SAP) presents the rationale and strategy for the sampling and analysis activities that support disposition of legacy waste in the Hanford Site's 105-B, 105-D, 105-H, 105-KE, 105-KW Reactor buildings. For the purpose of this SAP, legacy waste is identified as any item present in a facility that is not permanently attached to the facility and is easily removed without the aid of equipment larger than a standard forklift. | D,P | | Y | M | NO | NO |
| DOE/RL-99-13 | REV 1 | 100 AREA | 100-BC-1 100-DR-1 100-HR-1 100-KR-2 | 1999 APR | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR DISPOSITION OF STANDING LEGACY WASTE IN 105-B B-REACTOR 105-D 105-H 105-KE 105-KW REACTOR BUILDINGS | http://www5.hanford.gov/arpir/?content=detail&AKey=D199105357 | This sampling and analysis plan (SAP) presents the rationale and strategy for the sampling and analysis activities that support disposition of legacy waste in the Hanford Site's 105-B, 105-D, 105-H, 105-KE, 105-KW Reactor buildings. For the purpose of this SAP, legacy waste is identified as any item present in a facility that is not permanently attached to the facility and is easily removed without the aid of equipment larger than a standard forklift. | D,P | | Y | M | NO | NO |
| DOE/RL-99-58 | REV 0 | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 1999 MAY | DOE-RL | ANNUAL SUMMARY REPORT FEBRUARY TO DECEMBER 1998 FOR 100-HR-3 AND 100-KR-4 PUMP AND TREAT OPERATIONS AND OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199158563/D199158563_20577_270.pdf | This annual summary report discusses the interim remedial actions at the 100-HR-3 and 100-KR-4 Operable Units (OUs) for February 1, 1998, through December 31, 1998. This is the second annual summary report that has been submitted for these OUs; the fast report was released in April 1998 (DOE-RL 1998). Ongoing annual summaries and performance evaluations of each of the pump-and-treat systems are required. | D,H,P | Z | Y,X | A,M | NO | NO |
| DOE/RL-99-58 | DRAFT A | 100 AREAS 300 AREAS | 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-1 100-FR-2 100-HR-1 100-HR-2 100-KR-1 100-KR-2 100-IU-2 100-IU-6 200-CW-3 300-FF-2 | 1999 SEPT | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR 100 300 AREA REMAINING SITES | http://www5.hanford.gov/arpir/?content=detail&AKey=D8226011 | This confirmatory sampling and analysis plan (SAP) presents the rationale and strategy for the sampling and analysis activities that support of clean site confirmation of remaining source operable unit waste sites. The purpose of the proposed sampling and analysis activities is the characterization of waste sites, which are candidates for clean site confirmation without remedial action. The results of the sampling and analysis activities will also support future waste profiling and waste designation if the candidate sites are determined to be contaminated at levels that require remedial actions. | D,H,P | G,Z | Y,S,X | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOE/RL-99-58 | REV 0 | 100 AREAS 300 AREAS | 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-1 100-FR-2 100-HR-1 100-HR-2 100-KR-1 100-KR-2 100-IU-2 100-IU-6 200-CW-3 300-FF-2 | 2000 SEPT | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR 100 300 AREA REMAINING SITES | http://www5.hanford.gov/arpir/?content=detail&AKey=D8501259 | This confirmatory sampling and analysis plan (SAP) presents the rationale and strategy for the sampling and analysis activities that support of clean site confirmation of remaining source operable unit waste sites. The purpose of the proposed sampling and analysis activities is the characterization of waste sites, which are candidates for clean site confirmation without remedial action. The results of the sampling and analysis activities will also support future waste profiling and waste designation if the candidate sites are determined to be contaminated at levels that require remedial actions. | D,H,P | G,Z | Y,S,X | M | NO | NO |
| DOE/RL-99-58 | REV 1 DRAFT A | 100 AREAS 300 AREAS | 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-1 100-FR-2 100-HR-1 100-HR-2 100-KR-1 100-KR-2 100-IU-2 100-IU-6 200-CW-3 300-FF-2 | 2003 FEB | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR 100 300 AREA REMAINING SITES | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0002/d0999190/d0999190_223.pdf | This confirmatory sampling and analysis plan (SAP) presents the rationale and strategy for the sampling and analysis activities that support of clean site confirmation of remaining source operable unit waste sites. The purpose of the proposed sampling and analysis activities is the characterization of waste sites, which are candidates for clean site confirmation without remedial action. The results of the sampling and analysis activities will also support future waste profiling and waste designation if the candidate sites are determined to be contaminated at levels that require remedial actions. | D,H,P | G,Z | Y,S,X | M | NO | NO |
| DOE/RL-99-59 | DRAFT A | 100 AREA | 100 AREA | 1999 DEC | DOE-RL | PROPOSED PLAN FOR 100 AREA BURIAL GROUNDS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=D199159595 | This Proposed Plan identifies the preferred alternative for interim remedial action at 45 solid waste burial grounds located in the 100 Area source operable [nits of the Hanford Site. In addition, the Plan includes summaries of other alternatives analyzed for remediation of the burial grounds. | D,P | E | Y | M | YES | YES |
| DOE/RL-99-89 | REV 1 | 100 AREA | 100 AREA | 2000 MAY | DOE-RL | PROPOSED PLAN FOR 100 AREA BURIAL GROUNDS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0023/D8317795/D8317795_26984_39.pdf | This Proposed Plan identifies the preferred alternative for interim remedial action at 45 solid waste burial grounds located in the 100 Area source operable [nits of the Hanford Site. In addition, the Plan includes summaries of other alternatives analyzed for remediation of the burial grounds. | D,P | E | Y | M | YES | YES |
| DOE/RL-99-89 | REV 1 | 100-K | 100-KR-2 | 2001 DEC | DOE-RL | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR 100-K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0020/D8909028/D8909028_29784_72.pdf | This Remedial Design Report/Remedial Action Work Plan (RDR/RAWP) presents the design and work plan for the remediation of the K East and K West Basins, located in the 100-K Area of the Hanford Site. The basins contain spent nuclear fuel (SNF) and contaminated sludge, water, and debris. The SNF is deteriorating under the current storage conditions. In addition, at least two leaks of contaminated water from the basins into the underlying soil and groundwater have been documented. | D,H,P | Z | Y,S,X,P | M | YES | NO |
| DUN-213 | Rev. 1 | 100-K | 100-KR-2 | 6/20/2005 | NA-1 | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR K-BASINS INTERIM REMEDIAL ACTION SUPPLEMENT 2 K-EAST BASIN NORTH LOAD OUT PIT SLUDGE TREATMENT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA695961/DA695961_40533_23.pdf | The Hanford Site is a 1,517 square kilometer (586 square mile) Federal facility located along the Columbia River in southeastern Washington State. From 1943 until 1990, the Hanford Site produced nuclear materials for the nation's defense mission. In July 1989, the Hanford Site was listed on the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. The Hanford Site was divided up and listed as four NPL sites: the 100 Areas, the200 Areas, the 300 Area, and the 1100 Area. The 100 K Area K Basins are part of the 100 Area NPL site. In March-April 1999, the U. S. Environmental Protection Agency (EPA), and the Washington State Department, of Ecology (Ecology) signed the K Basins Interim Action Record of Decision (ROD). The ROD directed removal of the spent nuclear fuel (SNF), sludge, water, and debris from the two K Basins in Hanford's 100 K Area, The ROD also directed that the basins be decontaminated to the extent necessary to make it safe to drain the water from the basins. | D, H, P | | S | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DUN-3259 | | 100 Areas | 100-K | 10/18/1967 | Douglas United Nuclear | Program Review- Ground Disposal of Reactor Effluent. | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/46725877/DUN-3259_%5BD7153936%5D.pdf?nodeid=46726663&vernum=2 | With the exception of the N Reactor the plutonium production reactors operated by Douglas United Nuclear, Inc., use treated Columbia River wate as coolant on a once-through basis. Radionuclides formed by neutron activation of Columbia River salts not removed in the water treatment process and water treatment additives are discharged to the river. Although, the quantity and possible effects of the radionuclides reelease are well within accepted limits, emphasis has been placed on reducing the releases to as low as possible. One alternate concept which would both drastically reduce radionuclide content and reduce the heat load to the river is the disposal of the reactor effluent to the ground, either at a pond or a network of trenches. This has already been tested at F and D Reactor Areas and it is proposed in this report to conduct similar tests at B, C and K areas. | | | | | | |
| DUN--5258 | | 100-K | 100-KR-2 | 1965 NOV | ETHERIDGE EL DUN | SUMMARY REPORT 100KEW BACKUP COOLANT SYS IMPROVEMENT | http://www5.hanford.gov/ddrs/search/RecordDetails.cfm?AKey=D198065873 | This is a review of various methods which have been proposed to maintain adequacy in the KEW Coolant Back-up System. The methods have been analyzed for their shortcomings and their estimated installation costs. | D,P | | Y | | NO | NO |
| DUN-5258 | | 165-K,105-K, 190-K | 165-K,105-K, 190-K | 1969 Aug | Diediker, D.M. ; Harrison, C.W. | Stress analysis of 100-K primary piping | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=93597&Row=10 | It is the intent of this report to present the results of the analysis of the measured and calculated stresses and to define to the extent possible the conditions of stress in the primary coolant piping systems during both normal and emergency conditions. The data is presented for further evaluation in conjunction with the results of the investigations being conducted to determined fracture toughness properties, crack growth rates, and nil ductility transition temperature ranges of the K Reactor coolant piping materials. | D,H,P | G,Z | | A | NO | NO |
| DUN-7238 | | 100-K | 100-KR-2 | 1969 AUG | DIEDIKER DM, HARRISON CW DUN | STRESS ANALYSIS OF 100K PRIMARY PIPING | http://www5.hanford.gov/ddrs/common/findpage.cfm?AKey=D6718486 | It is the intent of this report to present the results of the analysis of the measured and calculated stresses in the integrity of the K Reactor primary coolant piping systems and to define to the extent possible the conditions of stress in the system during both normal and emergency situations. | D,P | | | | YES | NO |
| DUN--7238 | | 100-K | 100-KR-2 | 1970 SEPT | WELL GW DUN | KE REACTOR, KW REACTOR, REACTOR TECHNOLOGY, WASTE TREATMENT & DISPOSAL | http://www5.hanford.gov/ddrs/common/findpage.cfm?AKey=D7402380 | This report presents a review of current 100-K Plant liquid waste disposal practices. The report is divided into two sections. Section I consists of a general description of the Plan facilities to dispose of iquid wastes by ground disposal or direct discharge to the Columbia River. The second section further appraises liquid waste disposal practices by examining each material that is used in any significant degree in PLant operations. | D,P | Z | Y,X | | NO | NO |
| DUN-7661 | | 100-K, 183-K, 165-K | 100-K, 183-K, 165-K | 1970 SEPT | Wells, G.W. | Liquid waste disposal review 100-K Plant | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10175692&Row=13 | This report presents a review of current 100-K Plant liquid waste disposal practices. The report s divided into two sections with Section I consisting of a general description of the Plant facilities to dispose of liquid wastes by ground disposal or by direct discharge to the Columbia River. Section II further appraises liquid waste disposal practices by examining each material that is used in any significant degree in Plant operations | D,H,P | G | Y,S,X | M | NO | YES |
| DUN-7661 | | 100-K | 100-KR-1 100-KR-4 | 1971 MAY | RG CLOUGH JR DUN | REACTOR PLANT DEACTIVATION HISTORY 100-KE AND 100-K PLANT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0040/D196044979/D196044979_5112_46.pdf | This report describes the main phases of the K Reactor Plant Deactivation (RPD) programs, including postshutdown surveillance and maintenance action requirements. It also contains references to manuals, logs, letters, and !`^ other material where program details may be found. | D,P | | | | YES | NO |
| | | | | | EPA | USDOE Hanfor Site First Five Year Review Report | | | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HNF-11208 | DRAFT | HANFORD SITE | HANFORD SITE | 2004 DEC | ECOLOGY | COLUMBIA RIVER MAINSTREAM WATER MANAGEMENT PROGRAM | RL - 363.7394 | THIS PROPOSAL IS FOR A WASTE MANAGEMENT PROGRAM FOR MAINSTREAM COLUMBIA RIVER, AS IT AFFECTS THE HANFORD SITES. | D,H,P | | | M | NO | YES |
| HNF-11967 | REV 0 | 100-K | 100-KR-2 | 2002 JUL | MJ HALL FH | SAMPLING AND ANALYSIS PLAN FOR CHARACTERIZATION OF 105-K WEST BASIN WASTE WATER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9092549/D9092549_31366_29.pdf | This sampling and analysis plan (SAP) presents the rationale and strategy for sampling and analysis activities to support transfer of water from the 105-K West Basin (KW Basin) via tanker truck to the Liquid Effluent Retention Facility(LERF)/Effluent Treatment Facility (ETF). This SAP details the necessary steps to ensure that adequate information is obtained to meet applicable requirements for acceptance of the waste stream at the LERF/ETF. | D,P | Z | Y | M | NO | NO |
| HNF-13663 | REV 0 | 100-K | 100-KR-2 | 2002 SEPT | MJ HALL FH | SAMPLING AND ANALYSIS PLAN FOR CHARACTERIZATION OF 105-K EAST BASIN WASTE WATER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9152066/D9152066_31840_30.pdf | This sampling and analysis plan (SAP) presents the rationale and strategy for sampling and analysis activities to support transfer of water from the 105-K East Basin (KE Basin) via tanker truck to the Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF). This SAP details the necessary steps to ensure that adequate information is obtained to meet applicable requirements for acceptance of the waste stream at the LERF/ETF. | D,P | Z | Y | M | NO | NO |
| HNF-20632 | Rev.0 | 100-K | 100-K | 2002 Nov | WALKER, L.D. | Description of work for the installation of 3 groundwater wells at the 100-KR-4 and 200-ZP-1 pump and treat remediation system FY2003 Cercla Drilling | http://www5.hanford.gov/pdwdocs/fsd0001/osti/2003/I0039642.pdf | This description of work (DOW) documents the requirements for three wells to be drilled and constructed in fiscal year 2003 as part of the 100 KR-4 and 200-ZP-1 groundwater Pump-and-Treat Remediation Facilities on the Hanford Site. Installation of these wells is to replace two existing extraction wells in the 100-KR-4 and 200-ZP-1 Pump-and Treat Systems, and the installation of one new monitoring well at 100-KR-4 | D,H | G | Y,S | A | NO | NO |
| HNF-20896 | Rev. 0 | 100-K | 100-KR-2 | 6/23/2005 | DJ WATSON, GB GRIFFIN | END POINT CRITERIA FOR K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA573224/DA573224_40288_29.pdf | The purpose of this document is to define the conditions that must exist to consider the K Basins interim remedial action complete in the form of end point criteria. For the K Basins interim remedial action, end point criteria also provide the framework to develop data quality objectives (DQOs) and sampling and analysis plans (SAPs) for the remedial action, and to develop indirect or direct measurement techniques or processes to demonstrate how the criteria are satisfied. These SAPs will form a part of the project closure documentation which will demonstrate how waste acceptance criteria at applicable waste storage and disposal facilities are met. | D, H, P | Z | S | | NO | NO |
| HNF-22567-FP | Revision 0 | 100-KR-2 | 100-KR-2 | 2004 AUG | NA-1 | REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN SUPPLEMENT K BASINS DISCHARGE CHUTE GROUTING | http://www5.hanford.gov/arpir/?content=detail&AKey=D5765259 | This document identifies plans for the deactivation of the 105 K East and K West Discharge Chutes to<br>supplement the remedial actions identified in the Remedial Design Report /Remedial Action Work Plan<br>(RDRIPAWP) for the K Basins Interim Remedial Action (DOE-RL, 2001). | D,H,P | | S,X | A | No | NO |
| HNF-2367 | Rev.0 | 100-K | 100-K | 2004 DEC | AMBALAM, T. | EFFECTIVE ENVIRONMENTAL COMPLIANCE STRATEGY FOR THE CLEANUP OF K BASINS AT HANFORD SITE WASHINGTON | http://www5.hanford.gov/pdwdocs/fsd0001/osti/2004/I0046037.pdf | K Basins, consisting of two water-filled storage basins (KW and KE) for spent nuclear fuel (SNF), are part of the 100-K Area of the Hanford Site. . This paper provides an overview of the development and implementation of an environmental permitting and surveillance strategy that enabled us to achieve full compliance in a challenging environment, with milestones and cost constraints, while meeting the high safety standards | D | E | Y,X | A | NO | NO |
| HNF-2570 | REV 0 | 100-K | 100-KR-2 | 1999 FEB | AJ SCHMIDT, KL SILVERS, PR BREDT PNNL | SUPPLEMENTARY INFORMATION ON 100-K BASIN SLUDGES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0015/D199048567/D199048567_19109_167.pdf | Three previous documents in this series have been published covering the analysis of: K East Basin Floor and Pit Sludge, K East Basin Canister Sludge, and K West Basin Canister Sludge. Since their publication, additional data have been acquired and analyses performed. It is the purpose of this volume to summarize the additional insights gained in the interim time period. | D,P | G,Z | Y,S,X | A,M | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HNF--2576 | Revision 0 | K Basin | K Basin | 1998 MAY | R. L. Hobart | 324 Building special-case waste assessment in support of the 324 Building closure (TPA milestone M-89-05) | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=40&osti_id=353293&Row=8 | Hanford Federal Facility Agreement and Consent Order, also known as the Tri-Party Agreement Milestone M-89-05 requires US Department of Energy, Richland Operations Office to complete a 324 Building Special Case Waste Assessment in Support of the 324 Building Closure. This document has been prepared with the intent of meeting this regulatory commitment. Alternatives for the Special Case Wastes located in the 324 Building were defined and analyzed. Based on the criteria of safety, environmental, complexity of interfaces, risk, cost, schedule, and long-term operability and maintainability, the best alternative was chosen. Waste packaging and transportation options are also included in the recommendations. The waste disposition recommendations for the B-Cell dispersibles/tank heels and High-Level Vault packaged residuals are to direct them to the Plutonium Uranium Extraction Facility (PUREX) Number 2 storage tunnel. | D,H,P | E | S,X | A | Yes | Yes |
| HNF-2729 | | 100-K | 100-K | 1998 Apr | Pitkoff, C.C. | Cold vacuum drying facility: Phase 1 FMEA/FMECA session report | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=3&osti_id=353287&Row=3 | The mission of the Spent Nuclear Fuel (SNF) Project is to remove the fuel currently located in the K-Basins 100 Area to provide safe handling and interim storage of the fuel. The spent nuclear fuel will be repackaged in multi-canister overpacks, partially dried in the Cold Vacuum Drying Facility (CVDF), and then transported to the Canister Storage Building (CSB) for further processing and interim storage | D,H,P | G,Z | | A | Yes | No |
| HNF-2735 | Rev. 0 | K Basin | K Basin | 1998 MAY | Keith S. Witwer | ORGANIC ION EXCHANGE RESIN SEPARATION M ETH 0 DS EVALUATION | http://www.osti.gov/bridge/purl.cover.jsp?purl=/341265-u8jkXt/webviewable/ | This document describes testing to find effective methods to separate Organic Ion Exchange Resin (OIER) from a sludge simulant. This task supports a comprehensive strategy for treatment and processing of K-Basin sludge. The simulant to be used resembles sludge that has accumulated in the 105KE and 105KW Basins in the 100K area of the Hanford Site. The sludge is an accumulation of fuel element corrosion products, organic and inorganic ion exchange materials, canister gasket materials, iron and aluminum corrosion products, sand, dirt, and other minor amounts of organic matter. | D,H,P | | | A | Yes | NO |
| HNF-3525 | Rev. 0 | 100-K | 100-K | 1998 Aug | A. G. Westra<br>T. A. Flament<br>L. de Lamartinie | K BASIN SLUDGE TREATMENT PROCESS DESCRIPTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D198163940/D198163940_18125_168.pdf | This document describes a process for dissolving the sludge to produce waste streams that meet the TWRS acceptance criteria for disposal to an underground waste tank and the ERDF acceptance criteria for disposal of solid waste. | D,P | E | Y,S,X | M | NO | NO |
| HNF--3735--REV0 | Rev.1 | 100-K | 100-K | 1999 Oct | TEDESCHI, D.J. | Design package lazy susan for the fuel retrieval system | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=6&osti_id=798002&Row=11 | This is a design package that contains the details for a Lazy Susan style small tool for the Fuel Retrieval System. The Lazy Susan tool is used to help rotate an MCO Fuel Basket when loading it. This document contains requirements, development design information, tests and test reports that pertain to the production of Lazy Susan small tool. | D | Z | | M | NO | NO |
| HNF-40917 | | 183-K | 183-K | 1999 May 27 | KLEM, M.J. | Engineering evaluation of transfer and transport concepts applicable to sludge treatment project | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=5&osti_id=782296&Row=11 | This project is to install HLAN into the 183KE building located at 100KArea. | D | G | | | NO | NO |
| HNF-4097 | Rev. 0 | 105-KW, 105KE | 105-KW, 105KE | 2009 APR | RUTHERFORD WW ;<br>GEUTHER WJ ;<br>STRANKMAN MR ;<br>et.al. | SLUDGE TREATMENT PROJECT PHASE 1 SLUDGE STORAGE OPTIONS ASSESSMENT OF T PLANT VERSUS ALTERNATE STORAGE FACILITY | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=952592&Row=12 | The CH2M HILL Plateau Remediation Company (CHPRC) has recommended to the U.S. Department of Energy (DOE) a two phase approach for removal and storage (Phase 1) and treatment and packaging for offsite shipment (Phase 2) of the sludge currently stored within the 105-K West Basin. This two phased strategy enables early removal of sludge from the 105-K West Basin by 2015, allowing remediation of historical unplanned releases of waste and closure of the 100-K Area. | D,H | C | Y,S,X | A | YES | YES |
| HNF--4286 | REV 0 | 100-K | 100-KR-2 | 1999 APR | AJ SCHMIDT,<br>CA PETERSEN,<br>GA WHYATT,<br>JD HOOVER,<br>KL PEARCE<br>NHC | SLUDGE TREATMENT ALTERNATIVE ANALYSIS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199089762/D199089762_19399_326.pdf | This sludge treatment alternative analysis (STAA) evaluates alternatives for the treatment and disposition of sludge from the K East and K West Basins. The sludge must be removed from the basins as part of an interim remedial action conducted in accordance with the CERCLA) The results of this STAA will be incorporated into a focused feasibility study prepared to support the CERCLA process and will be used to support selection of an appropriate treatment and disposition pathway for the sludge. | D,P | G,Z | Y | A,M | NO | YES |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HNF-4535 | REV.0 | 100-K | 100-K | 1994 OCT | WESTRA, A.G. | Sludge treatment facility preliminary siting study for the sludge treatment project (A-13B) | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=6&osti_id=782412&Row=0 | This study evaluates various sites in the 100 K area and 200 areas of Hanford for locating a treatment facility for sludge from the K Basins. Both existing facilities and a new standalone facility were evaluated. A standalone facility adjacent to the AW Tank Farm in the 200 East area of Hanford is recommended as the best location for a sludge treatment facility. | D,H | | S,P | A | NO | NO |
| HNF-4535 | Rev.0 | 100-KE, 100KW | 100-KE, 100KW | 1999 JUNE | G. S. Hunacek, Jr. | Spent nuclear fuels project 100-K operations spill assessment | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=798027&Row=9 | The Spent Nuclear Fuel (SNF) Spill Assessment (SA) describes measures that are taken to prevent spills to the environment and to minimize the adverse effects of spills that do occur. This SA includes the information which is necessary to evaluate the risks and hazards of a spill being released to the environment. | P,H | G,E | Y,S,X | A | NO | NO |
| HNF-4974 | Rev. 0 | 100-K, 100-KE, 100-KW | 100-K, 100-KE, 100-KW | 1999 JUN | GS Hunacek, Jr. | Spent Nuclear Fuels Project 100K Operations Spill Assessment | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=20&osti_id=798027&Row=17 | The Spent Nuclear Fuel (SNF) Project Spill assessment (SA) describes measures that are taken to prevent spills to the environment and to minimize the adverse effects of spills that may occur. These measures are designed to preclude spills to National Pollutant System (NPDES) permitted Outfall 003/004. This SA includes infromation which is necessary to evaluate the risks and hazards of a spill being released to the environs: Systems Descriptions, Spill Destinations, Spill Prevention, Measures, Upgrading Spill Prevention, and Spill Response. | D,H, P | Z | Y, S, X, | A, | NO | NO |
| HNF-6495 | REV 0 | 100-K | 100-KR-2 | 2000 JUN | JL WESTCOTT FDH | SAMPLING AND ANALYSIS PLAN FOR K BASINS DEBRIS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0023/D8359858/D8359858_27167_86.pdf | This Sampling and Analysis Plan (SAP) is focused on removal of debris from the Basins and onsite disposal of debris at the Environmental Restoration Disposal Facility (ERDF). The document identifies the waste streams, as well as field survey and sampling approaches to be used to characterize the debris. This material previously has been dispositioned at the Hanford Low-Level Burial Grounds (LLBGs) or Central Waste Complex (CWC). | D,P | | Y | M | NO | NO |
| HNF-6495 | Rev. 2 | 100-K | 100-KR-2 | 9/8/2005 | A PRIGNANO | SAMPLING AND ANALYSIS PLAN FOR K BASINS DEBRIS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA839966/DA839966_40840_81.pdf | This Sampling and Analysis Plan presents the rationale and strategy for sampling and analysis activities to support removal of debris from the K East and K West Basins located in the 100 K Area at the Hanford Site. This project is focused on characterization to support waste designation for disposal of waste at the Environmental Restoration Disposal Facility. This material has previously been dispositioned at the Hanford Low-Level Burial Grounds or Central Waste Complex. | D | Z | Y, S | A | NO | NO |
| HNF-6495 | Rev. B | 100-K | 100-KR-2 | 7/28/2005 | A PRIGNANO | SAMPLING AND ANALYSIS PLAN FOR K BASINS DEBRIS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0011/DA558310/DA558310_40173_80.pdf | This Sampling and Analysis Plan presents the rationale and strategy for sampling and analysis activities to support removal of debris from the K East and K West Basins located in the 100 K Area at the Hanford Site. This project is focused on characterization to support waste designation for disposal of waste at the Environmental Restoration Disposal Facility. This material has previously been dispositioned at the Hanford Low-Level Burial Grounds or Central Waste Complex. | D | Z | Y, S | A | NO | NO |
| HNF-6495 | Rev.0 | 100-KE, 100KW | 100-KE, 100KW | 1999 OCT | SKELLY, W.A. | Technical Approach and Plan for Transitioning Spent Nuclear Fuel (SNF) Project Facilities to the Environmental Restoration Program | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=798122&Row=22 | This document describes the approach and process in which the 100-K Area Facilities are to be deactivated and transitioned over to the Environmental Restoration Program after spent nuclear fuel has been removed from the K Basins. It describes the Transition Project's scope and objectives, work breakdown structure, activity planning, estimated cost, and schedule. This report will be utilized as a planning document for project management and control and to communicate details of project content and integration. | D,H,P | G,Z | Y,S,X,P | A | YES | No |
| HNF-8271 | Rev.0 | 100-K | 100-K | 2001 June | WESTCOTT, J.L. | Sampling and Analysis Plan for K Basins Debris | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=1&osti_id=803936&Row=24 | This Sampling and Analysis Plan presents the rationale and strategy for sampling and analysis activities to support removal of debris from the K-East and K-West Basins located in the 100K Area at the Hanford Site. This project is focused on characterization to support waste designation for disposal of waste at the Environmental Restoration Disposal Facility (ERDF). This material has previously been dispositioned at the Hanford Low-Level Burial Grounds or Central Waste Complex. | D,H,P | | S,X | A/M | NO | NO |
| HNF-8918 | REV 1 | 100-K | 100-KR-2 | 2001 JUN | CK GIRRES DFSNW | SAMPLING AND ANALYSIS PLAN FOR CHARACTERIZATION OF COLD VACUUM DRYING FACILITIES WASTE WATER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0021/D8796513/D8796513_29052_25.pdf | This Sampling and Analysis Plan (SAP) presents the rationale and strategy for sampling and analysis activities to support disposition of water from the Cold Vacuum Drying Facility (CVDF) at the Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF). | D,P | G,Z | Y | M | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HNF-8918 | REV 0 | 100-K | 100-KR-2 | 2001 NOV | AM HOPKINS FH | SAMPLING AND ANALYSIS PLAN FOR REMOVAL OF STRUCTURES EXTERNAL TO 100-K STORAGE BASIN | http://www5.hanford.gov/arpir/?content=detail&AKey=D8879490 | This Sampling and Analysis Plan (SAP) presents the rationale for waste characterization and the strategy for sampling and analysis activities to support removal of structures and soil external to the K East and K West Fuel Transfer System Buildings in the K East and K West Areas on the Hanford Site. This project is focused on characterization to support waste designation for disposal of the resulting waste at the appropriate disposal facility. | D,H,P | G | Y | A | NO | YES |
| HNF-EDC-05-24722 | | 100-K | 105-K | 2005 DEC | JE SAILER, FLUOR | 105 K EAST BASIN QUALIFIED PROCESS FOR DEMONSTRATING END POINT CRITERIA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/08100707 92/0078817%20-%20[0810070792].PDF | This document identifies the plans and processes to remove found fuel and sludge fromn the 105-K East (KB) Basin (Operable Unit II00-KR-2, Site I100-K-42), prepare below water debris for grouting and configure the KE Basin to achieve the end point criteria for found fuel and sludge removal and underwater debris cleaning identified in the End Point Criteria for the K Basins Interim Remedial Action (FH, 2005a). Processes described in this plan also implement the Sampling and Analysis Plan (SAP) for the 105-K East Basin Monoliths related to sludge measurements and debris inventory collection. | D,P | G,Z | Y | M | NO | NO |
| HNF-EDC-05-24722 | REV 1 | 100-K | 100-KR-2 | 2001 DEC | M MILLER FH | SAMPLING AND ANALYSIS PLAN FOR REMOVAL OF STRUCTURES EXTERNAL TO 100-K STORAGE BASIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0020/D8920134/D8920134_29834_137.pdf | This Sampling and Analysis Plan (SAP) presents the rationale for waste characterization and the strategy for sampling and analysis activities to support removal of structures and soil external to the K East and K West Fuel Transfer System Buildings in the K East and K West Areas on the Hanford Site. This project is focused on characterization to support waste designation for disposal of the resulting waste at the appropriate disposal facility. | D,H,P | G | Y | A | NO | YES |
| HNF-EDC-07-32909 | REV 2 | 100-K | 105-K | 2007 MAR | JL WESTCOTT, FLUOR | SAMPLING AND ANALYSIS PLAN FOR THE 105-K EAST BASIN MONOLITHS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/08100707 91/0078816%20-%20[08100707911.PDF | This SAP was developed through use of the data quality objective (DQO) process. The DQO process is a methodical planning approach that provides a systematic process for defining criteria that a data collection design should satisfy. Using the DQO process ensures that the type, quantity, and quality of environmental data used in decision making will be appropriate for the intended application. | D,H,P | G,Z | Y | M | YES | NO |
| HNF-EDC-07-34071 | REV 1 | 100-K | 100-KR-2 | 2007 JUN | JL WESTCOTT, FLUOR | KE BASIN ERDF COMPLIANCE CALCULATION TO SUPPORT MILESTONE COMPLETION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/08100707 90/0078815%20-%20[0810070790].PDF | Fluor Hanford has performed inspections, measurements, and calculations to determine if sludge was removed from the K East (KE) Basin to the extent that the planned basin and pit waste forms (i.e., basin concrete rubble and grouted pits) meet the criteria for disposal at the Environmental Restoration Disposal Facility (ERDF). This report summarizes the calculation basis and methodology used to demonstrate that the planned waste forms will meet the criteria for disposal at the ERDF and documents the results of the measurements and | D,P | | Y | A | | |
| HNF-MR-0541 | Rev. 1 | Hanford Site | Hanford Site | 1997 SEP | F.M. Mann | Hanford Low-Level Tank Waste Interim Performance Assessment | http://www.osti.gov/bridge/purl.cover.jsp?purl=/353236-9Emw65/webviewable/ | This report focuses on the interim performance assessment which examines the long-term environmental effects of the planned Hanford Low-Level Tank Waste Disposal Facility as early as possible in its project life. That facility is proposed for the disposal of low-level radioactive waste that is derived from the treatment of waste currently stored in the Hanford single- and double-shell tanks. The Hanford tank waste will be separated into high-activity and low-activty components with the low-activity component immobilized and placed in a disposal facility. | D,H,P | G,Z,C,E,T | Y,S,X,P | A,M | Yes | Yes |
| HNF-SD-GN-ER-508 | DRAFT B | 100-K | 100-KR-2 | 1997 MAY | PM DALING DESH | PRELIMINARY SAFETY ASSESSMENT TRANSFER OF 100-K BASIN SLUDGE INTO DOUBLE-SHELL TANK 241-AW-105 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D8254446/D8254446_26609_398.pdf | The purpose of this document is to evaluate the safety of equipment and operations to off-load and store K Basin sludge materials in a double-shell tank (DST) at the Hanford Site. The scope of this safety assessment covers activities associated with the transfer of K Basin sludge from a shipping container to a storage tank in the Hanford Site's tank farms. These activities include construction and installation of any necessary equipment and facilities; conducting the actual transfer operations; and intermediate storage. | D,P | C | Y | | YES | NO |
| HNF-SD-NR-CSER-008 | Rev. 0 | Hanford Site 100-K | Hanford Site 100-K | 1997 SEP | T. J. Conrads | Hanford Strong Motion Accelerometer Network: A Summary of the First Months of Operation | http://www.osti.gov/bridge/purl.cover.jsp?purl=/10154284-ybdDZu/webviewable/ | This document describes the design, installation, and brief operation of a strong motion accelerometer system at the Hanford Site. This system was to be used by Site staff following a significant earthquake to assess possible structural damage by comparing the ground motion spectra to facilities seismic design criteria. | D,H | GT | | A | No | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HNF-SD-SNF-CSER-006 | Rev.2 | 100-K | 100-K | 1997 Aug | Erickson, D.G. | CSER 97-003: Analysis of the criticality safety of the 100K east basin weasel pit | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=313179&Row=24 | This Criticality Safety Evaluation Report analyzes the criticality safety of the 100 KE Basin weasel pit for the storage of current operation sludge that is pumped from various locations in the basin. | D | | | A/M | NO | NO |
| HNF-SD-SNF-FRD-009 | Rev. 2 | 100-K K basins | 100-K K Basins | 1999 JAN | J.V. Nelson | Criticality Safety Evaluation Report for the 8 Cold Vacuum Drying Facility's Process Water Handling System | http://www.osti.gov/bridge/purl.cover.jsp?purl=/782362-v5BK3B/webviewable/ | This report addresses the criticality concerns associated with process water handling in the Cold Vacuum Drying Facility. The controls and limitations on eqnipment design and operations to control potential criticality occurrences are identilied. | D,H,P | | S,C | A | No | NO |
| HNF-SD-SNF-PCR--002 | REVISION 1 | KE Basin K W Basin | KE Basin K W Basin | 1999 DEC | D.R. Precechtel | SPENT NUCLEAR FUEL PROJECT FUNCTIONS AND REQUIREMENTS FOR DEBRIS REMOVAL SYSTEM (Canisters and Lids Only) | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=35&osti_id=798858&Row=3 | This revision of the Functions and Requirements Document updates the approved Functions and Requirements for Debris Removal Subproject WHC-SD-SNF-FRD-009, Rev. 0. It has been revised in its entirety to reflect the current scope of work for Debris Removal as canisters and lids under the K Basin Projects work breakdown structure (WBS). In this revision the canisters and lids will be consider debris and a new set of Functions and Requirements have been developed to remove the canisters and lids from the basin. | D, P | | Y,S, X | A | No | NO |
| HNF-SD-SNF-RPT-011 | Rev. 0 | K Basin | K Basin | 1997 JUNE | H. L. Chang | K Basin Sludge Removal Sludge Pretreatment System | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=325687&Row=5 | The Spent Nuclear Fuels Program is in the process of planning activities to remove spent nuclear fuel and other materials from the 100-K Basins as a remediation effort for clean closure. The 105 K- East and K-West Basins store spent fuel, sludge, and debris. Sludge has accumulated in the 1 00 K Basins as a result of fuel oxidation and a slight amount of general debris being deposited, by settling, in the basin water. The task for this project is to disposition specific constituents of sludge (metallic fuel) to produce a product stream through a pretreatment process that will meet the requirements, including a final particle size acceptable to the Tank Waste Remediation System (TWRS). | D,H,P | Z | Y,S,X | A | YES | NO |
| HNF-SD-SNF-TA--015 | Revision 2 | K Basins KW, KE, | K Basins KW, KE, | 2000 JUN | K. J. Cleveland A. L. Pajunen | Spent Nuclear Fuel Project Design Basis Capacity Study | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=42&osti_id=804501&Row=17 | This study of the design basis capacity of process systems was prepared by Fluor Federal Services for the Spent Nuclear Fuel Project. The evaluation uses a summary level model of major process sub-systems to determine the impact of sub-system interactions on the overall time to complete fuel removal operations. The process system model configuration and time cycle estimates developed in the original version of this report have been updated as operating scenario assumptions evolve. | D,H,P | | | A | No | Yes |
| HNF-SP-1104 | Rev. 0 | 100-KE, 100KW | 100-KE, 100KW | 1997 JUNE | Alderman, C.J., L. M. Johnson | Life-cycle cost and impacts: alternatives for managing KE basin sludge | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=325411&Row=5 | This document presents the results of a life-cycle cost and impacts evaluation of alternatives for managing sludge that will be removed from the K Basins. The two basins are located in the 100-K Area of the Hanford Site. The long-range plan for the Hanford Site calls for spent nuclear fuel (SNF), sludge, debris, and water to be removed from the K East (KE) and K West (KW) Basins. The scope includes treating the sludge and water in the 100-K Area prior to the transfer. This life-cycle evaluation goes beyond the EE/CA and considers the full life-cycle costs and impacts of dispositioning sludge. | D,H | G | Y,S,X | A | NO | YES |
| HW-25892 | REV 6 | 100-K | 100-KR-2 | 1996 NOV | FDH | SPENT NUCLEAR FUEL MULTIYEAR WORK PLAN WBS 1.3 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199013386/D199013386_18514_247.pdf | The MYWP technical baseline describes the work to be accomplished by the Project and the technical standards which govern that work. The Spent Nuclear Fuel (SNF) mission on the Hanford Site supports the Hanford Mission to clean up the Site by providing safe, economic, environmentally sound management of Site Spent Nuclear Fuel (SNF) in a manner which stages it to final disposition, and deactivating the associated facilities. | D | | | | NO | NO |
| HW-26913 | | 100-K | 100-KE, 100KW | 1953, January | GE | Design Planning of a Dichromate System for the 100-K Areas | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/47019596/HW-26913_%5BD8438577%5D.pdf?nodeid=47023678&vernum=2 | The purpose of this document is to outline a plan whereby facilities for sodium dichromate addition may be added if determined to be necessary at the 100-K Water Plant. Discusses relatvie cost and handling advantages to a 70% solution versus that with a 100% solid form of sodium dichromate. Discusses basic design options for adding sodium dichromate to cooling water, reviewing several design options injecting the 70% solution into cooling water at concentrations of 2,200 mg/L. | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HW-33490 | | 100-K | 100-KR-2 | 1952 OCT | Pearl WL and JC Whipple | SUMMARY REPORT OF REACTOR HAZARDS FOR TWIN 100K AREA REACTORS | http://www5.hanford.gov/ddrs/common/findpage.cfm?AKey=D19029063 | This summary report of Reactor Hazards for Twin 100-K Reactors is an evaluation of hazards associated with the operation of the new twin 1300 MW reactors now under design. It focuses on the questions basic to the design, operation, and location of the 100-K Area plans as these bear upon reactor hazards. | D,P | Z | Y | | YES | NO |
| HW--37090 | | 100-K | 100-KR-2 | 1954 OCT | BUSH SH, ELDER BR GE | METALLURGICAL EXAMINATION OF 100K REACTOR ALUMINIUM CONNECTORS & 100C REACTOR REAR FACE ALUMINUM CONNECTORS | http://www5.hanford.gov/ddrs/common/findpage.cfm?AKey=D19032221 | Metallurical examination of K reactor aluminus connectors is made. It states that the present K reactor connectors are believed to be unsafe for use on the front face. | D,P | Z | Y | | YES | NO |
| HW--56269 | Rev. 1 | 100-K | 100-K | 1955 SEPT | Rudock, E.R. | Evaluation of Teflon hose for Hanford Reactor services. | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10180324&Row=21 | Teflon hose was tested and evaluated for its usability as an integral piping component of a Hanford reactor process tube cooling system. A satisfactory process tube connector design, fabricated from Teflon hose, was developed for the replacement of the existing 100-K reactor aluminum connectors. | H,P | | | A | NO | NO |
| HW-60601 | | Hanford | Hanford | 1959, JUNE | Bierschenk, WH | Aquifer Characteristics and Ground-water Movement at Hanford | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/48428826/HW-60601_%5BD196129098%5D.pdf?nodeid=48433638&vernum=2 | It is the purpose of this report to (a) describe the hydrological studies and tests at Hanford which permit the calculation of the hydraulic charaacteristics of the aquifers present, (b) determine the general directions and average rates of groundw-water flow, (c) point out important factors which affect the movement of ground water and wastes, (d) estimate a mean lateral path of potential ground-water contamination from disposal sites to the Columbia Riverand the "time of travel"; and (e) to indicate what is needed in the way of additional geological and hydrological information. | | | | | | |
| HW--60607 | | 100-K | 190-K | 1958 JUNE | Rudock, E.R. | System curves for 100-K water plant expansion pump analysis | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-13217.pdf | Modifications to the 100-K water plant will be made, under Project CG-775, to increase total process water flow rates to 175,000 gpm or greater. Included in the modifications will be the installation of new pump impellers for the primary and secondary process water pumps located in the 190-K Buildings. | D,H | G | | A | NO | NO |
| HW--60817 | | 100-K | 100-K | 1959 May | Corlett, R.F. | Analysis of 100-K emergency water requirements after CGI-844 pump failure | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10154751&Row=1 | This study was made at the request of Reactor Modification Design Unit which is preparing Project CGI-844 for modification of the 100-K main coolant pumps. The purpose was to evaluate how much emergency water would be needed for prevention of excessive water and fuel temperatures when pump failure occurs. | D,H | Z | S | A | NO | NO |
| HW--61045 | | 100-K | 100-K | 1959 JUNE | Fifer, N.F. | Revised recommendations for the 100-K Area Project CG-775 raw water requirements | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10172365&Row=12 | As a part of Project CG-775, lO0-K Area Water Plant Expansion, the capacity of the 181-K river pump installations will be increased. Recommendations for the raw water requirements based on a reactor flow of 175,000 gpm were presented in document HW-55877. Since then a new fuel element has been developed for the K reactors, resulting in :a lower reactor system curve. The purpose of this report is to present a set of revised recommendations for Project CG-775 raw water requirements based upon the new reactor system. | D,H | | | | NO | NO |
| HW--61306-Rev. | | 100-KER | 100-KER | 1959 JUL | Watson, D.F. | CGI-844: 100-K coolant back-up system scope requirements | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10172314&Row=7 | An emergency flow requirement of the K reactors for planned future power levels is approximately 32,000 gpm within 68 sec. A detailed study of the existing high-pressure cross-tie line reveals that a duplicate cross-tie line and five low lift pump operation would be required to provide this flow. The existing emergency generation capacity is not adequate to supply five low lift pumps and all other necessary emergency electrical loads. | D,H,P | | | A | NO | NO |
| HW--62816 | | 100-K | | 1960 FEB | Thorson, W.R. | 100-K Area electrical power system load and voltage study for project CG-775. Revision | http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=96C6048A28A23AAE95D450FBA5C7F2FA?purl=/10155360-fAPsjt/native/ | The proposed increased water capacity for lO0-K plants will greatly increase the electrical load to be supplies by the existing area power distribution systems. To determine the effects of the increased loading on the power system a study was requested by Reactor Modification Design Unit. | D,H | C | | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HW--62922-RD | | 100-K | 100-K | 1959 DEC | Stepnewski, D.D. | Effects of 100-K water plant expansion on Panellits and orifices | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10171793&Row=3 | The information reported here was requested by M.H. Schack, Facilities Engineering Operation. It pertains to the 100-K water plant expansion Project CG-775. In this project, cooling water pumping capacity will be increased from 178,000 GPM existing to 188,000 GPM and 200,000 GPM for five and six modified pumps respectively. | D,H | Z | | A | NO | NO |
| HW--66649 | | 100-KE | 100-KE | 1959 DEC | Wheeler, R.G. | Temperature measurement in operating reactors: In-reactor temperature measurement associated with fuel element testing | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=10155031&Row=0 | The Fuel Development operation at Hanford uses a variety of in-reactor facilities to test experimental and prototypical fuel elements. ETR reflector facility and four front-to-rear loops in the 100-K East reactor at Hanford. Low pressure water cooled test facilities in use are located in the MTR the various Hanford reactors. This report provides a brief description of some of the temperature monitored in-reactor experiments. | D,P | G | | A | NO | NO |
| HW--67444 | | 100-K | 100-K | 1960 Aug | Schack, M.H. ; Tupper, W.J. | Coolant backup design study basis and objective | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10147310&Row=23 | A design study is being prepared by Reactor Modification Design to define the scope of the modifications required to provide adequate last ditch systems for the older areas. Adequate last ditch cooling will be provided for the 100-K Areas under Project CGI-844 which is currently in progress. The purpose of this document is to set forth the operating conditions and objectives on which the study will be based. | D,H | | | A | NO | NO |
| HW--71061 | | 100-KE, 100KW | 100-KE, 100KW | 1960 NOV | Schack, M.H. | Effluent system capacity Project CGI-883 increased process water flow -- 100-K | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10153672&Row=19 | The process water flow rates at the 100-K Reactors will be increased as a result of plant modifications under Project CGI-883. The purpose of this document is to present the results of an analytical study of the effluent system capabilities and to set fourth the additional design work with which must be performed in order to complete the detailed design of required alterations to the effluent system. | D,H | G | Y,S | A | YES | NO |
| HW--73906-RD | | 100-K, 190-KE | 100-K, 190-KE | 1961 SEPT | Keene, L.M. | Performance characteristics modified low lift pumps 100-K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10145507&Row=18 | A development program was initiated under Project CG-775 to test the proposed. Process water pump modifications for Project CGI-883, Increased Process Water flow 100-K. In February 1960 a initiated detail design on total KE and KW water plant expansion and to modify one KW process paying set for an early incremental production gain at the KW reactor. An investigation was made to evaluate the low lift pumping Units in each area to find out if they contributed to the difference in flow. This report describes the results of the investigation. | D,H,P | | | A | NO | YES |
| HW--73906-RD2 | | 100-KE, 100KW | 100-KE, 100KW | 1962 JUNE | Schack, M.H. | Design criteria modifications for use of zirconium tubes, 100-K Reactor | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10171066&Row=7 | This document is to define the operational and technical requirements of the modified facilities and to outline the functional descriptions of the proposed equipment. The objective in making these modifications is to provide the equipment and facilities necessary to permit operation of the 100-K Reactors with zirconium process tubes installed in the central zone regions. | D,H,P | G,C,E | | M | NO | NO |
| HW-74075 | | 100-KE, 100KW | 100KE, 100KW | 1962 JUNE | Barton, G.B. RB Hall, | Interim Report - C-14 in Reactor Effluents | | A study is being conducted to determine the C-14 activity discharged to the environment from Hanford reactors. The results from this study are to serve as a basis for predicting the increas in C-14 activity released when a change is made in the composition of the reactor atmosphere. Since January 1961the 105-KE reacotr has been operating in accordina with Production Test IP-358-AC, utilizing a mixture of N2 and He. | | | | | | |
| HW-74095 | Rev 0 | 100KE, 100KW | 100KE, 100KW | 1963, June | staff | Hazards Summary Report, Volume 1, Safety Analysis and Hazards Evaluatio, Hanford K Production Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/1081679/12347876/13531865/19239853/293-002681.pdf?nodeid=19238456&vernum=2 | This series of documents is designed to review the current status of reactopr safety and assess the hazards associatied with the operation of the two Hanford K Production Reactors. The report is purposely limited to the standard plutonium prodcution reactor loading. Hazards analyses applicable to other loadings and operating techniques, utilizing variations of the primary load, will be covered in appropriate spplements to the Hazards Summary Reports. | | | | | | |
| HW-74095 | Rev 0 | 100KE, 100KW | 100KE, 100KW | 1963, May | staff | Hazards Summary Report, Volume 2, Safety Analysis and Hazards Evaluatio, Hanford K Production Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/1081679/12347876/13531865/19231298/293-002616.pdf?nodeid=19236643&vernum=2 | This volume the second of a series of three, is a part of an overall Hazards Summary Reporttreating the Hanford K Reactors. The purpose of this volume is to examine in detail the elements of reactor control and to provide the basic reactor physics and engineering data mecessary for the analysis of reactore control and safeguards. | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HW-74095 | Rev 0 | 100KE, 100KW | 100KE, 100KW | 1963, April | staff | Hazards Summary Report, Volume 3, Safety Analysis and Hazards Evaluatio, Hanford K Production Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/1081679/12347876/13531865/19239853/293-003338.pdf?nodeid=19243246&vernum=2 | This volume presents a comprehensive physical description of the 100-KE and 100-KW Production Plants at Hanford. The term "Production Reactor Plant" is defeined as a Hanford Production Reactor plus its associated water supply and effluent water disposal facilities. This text provides a good description of the cooling and waste water systems as active in the early 1960s. ((FOR COLUMN H,CHECK TO INSURE BOTH SECTIONS OF THIS REPORT ARE CAPTURED)) | | | | | | |
| HW-74095, Supplement 2 | Rev 0 | 100-KE, 100KW | 100KE, 100KW | 1965, January | Nilson, R; S.M. Grave | Hazards Summary Report Supplement 2 Supplemental Information in Support of Higher Power Levels at the K Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/48760295/HW-79792_%5BD8557383%5D.pdf?nodeid=48760873&vernum=2 | One of a number of supplements prepared to address major operational changes considered in K-Reactor plant operations. These are published accident analyses that address proposed changes to reactor operations, in this case higher graphite core temperatures. Cooling system capacity is a concern in all of the supplements and is a driving factor in accident analysis. The data is valuable in that it can substantiate higher cooling water flow rates than stated in documents such as | | | | | | |
| HW-75618 | | 100KE, 100KW | 100KE, 100KW | 1962 November | Barton G B. | Release of Carbon-14 from the K-Reactor Stacks | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/48743949/HW-75618_%5BD8569280%5D.pdf?nodeid=48746697&vernum=2 | This investigation was undertaken to measure the difference in C-14 release to the atmosphere when a rector used as a coolant gas a mixture of helium-nitrogen as comp;ared to on using a mixture of helium-carbon dioxide. Measurement made by the Regional Monitoring Group showed differences between the reactors operating with helium-nitrogen ans those with Helium-carbon dioxide. The release of C-14 from the reacotr staciks was about 2.8 times greater when nitrodgen is substituted for carbon dioxide in the reactor atmosphere. | | | | | | |
| HW-76784 | | 100KE, 100KW | 100KE, 100KW | 1963, MARCH | Barton, G>B> | Status Report, Carbon-14 in the Codensate from the Silica Gel Dryers of the Production Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/48748759/HW-76784_%5BD8504000%5D.pdf?nodeid=48753124&vernum=2 | Volatile compounds containing C-14 prodcued in the cooling systems of Hanford reactors can be lost from the cooling gas by two routes. These are (a) escaped via the reactor stacks through leaks in the cooling gas systems and (b0, adosrption with water vappor on the silica gel of the dryers for the cooling gas with subsequent regeneration of the silica gel and condensation of the water for disposal. The present report provides data relative to the C-14 loss rates through the condensate obtained form regeneration of the silica gel gryers of the reactor gas cooling system. | | | | | | |
| HW--77257 | | 100-KE, 100KW | 100-KE, 100KW | 1962 AUG | Schack, M.H. | DESIGN CRITERIA MODIFICATIONS FOR USE OF ZIRCONIUM 'IUHES - 100-K REACTOR | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10119760&Row=15 | The following criteria define the objectives, bases and functional requirements that shall govern the preparation of the final design for the zirconium process tube installation program at the 100-K Areas. As a result of this program, reduced operating costs and increased production can be achieved. The present central zone aluminum tubes in the 100-K Reactors require replacement every to three years to prevent excessive failures resulting from the thinning of the tube walls by corrosion. | D,H,P | G,C,E | | M | NO | NO |
| HW--77378 | | 100-K | 100-K | 1963 AUG | Russell, A. ; Baars, R.E. | Technical criteria and bases reactor gas system: 100-K | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10162053&Row=6 | With an increased water plant capacity, the installation of zirconium process tubes and the use of self-supported fuel elements, the power level capability of the K Reactors exceeds the current administrative limit. Exploitation of this capability, if approved, will almost certainly bring about higher graphite temperatures. Continuing concern for graphite oxidation, and because the rate of oxidation increases with increasing graphite temperature, upgrading of the existing K-Reactor gas system through project action has been proposed. This document presents the technical basis for such project action. | D,H,P | Z | Y,S,X | A | NO | NO |
| HW--77803 | | 100-KE, 100KW | 100-KE, 100KW | 1963 APR | Lessor, L.C. | Pressure and flow data PT IP-573-I, 100-K flow tests | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10150022&Row=0 | A testing program designed to provide the necessary data for evaluation of the emergency flow backup adequacy was conducted at the K reactors on February 16,1963.This report contains the numerical results of the pressure and flow data that were obtained during these tests. | D,H | | | A | NO | NO |
| HW--77803-RD1 | | 183-KE | 183-KE | 1963 Jun | Etheridge, E.L. | Design bases, Bauxite-sulfuric acid feed facilities 100-K area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10146690&Row=22 | Criteria provided in this report delineate the objective, bases, and functional requirements that shall govern the preparation of detail design of the bauxite-sulfuric acid feed facilities to be installed in the 183-KE and KW Buildings.The objective of this document is to define the operational and technical requirements of the new process and to outline the functional requirements of the proposed facilities for the purpose of detail design. The criteria below define the requirements for a single K Area water plant. Unless otherwise stated they shall apply for both K Area water plants. | D,P | Z | | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HW--78770 | | 183-KE, 100KW | 183-KE, 100KW | 1993 JUNE | Etheridge, E.L. | Design bases: Bauxite-sulfuric acid feed facilities 100-K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10148140&Row=24 | This document defines the objective, bases, and functional requirements governing the preparation of detail design of the bauxite-sulfuric acid feed facilities to be installed in the 183-KE and KW buildings. These facilities will produce the chemical coagulant used in the treatment of Columbia River water in the water plants; they will replace existing liquid alum feed systems. The treated water will be used as reactor coolant. | D,H,P | G,Z | Y | A | NO | NO |
| HW--80626 | | 183-KE, 100KW | 183-KE, 100KW | 1963 SEPT | Etheridge, E.L. | Design criteria: Bauxite-sulfuric acid feed facilities 100-K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10145475&Row=23 | These criteria delineate objective, bases, and functional requirements governing preparation of design of the bauxite-sulfuric acid feed facilities installed in the 183-KE and KW Buildings. These facilities produces the chemical coagulant used in the treatment of Columbia River water in the K Area water plants and thus replaces the existing liquid alum feed systems used for this purpose. | D,H,P | Z | Y,P | M | NO | NO |
| HW-84569 | | 100 Areas | 100 Areas | 1964, DECEMBER | Barton GB | Report on Carbon-14 Generation and Release at some of the Hanford Reactors | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/48769406/HW-84569_%5BD8565119%5D.pdf?nodeid=48773853&vernum=2 | This investigation was undertaken to answer several questions concenring the generation and release of Carbon-14 in the operation of these graphite moderated reactors. The principle question was: Will an increase in the nitrogen content of the reactor atmosphere increase the release of Carbon-14 sufficiently to create a health hazard. Other questions were: 1.) What are the main sources and the main release route, 2.) How much does carbon-14 build up in the graphite in the reactor stackj and 3.) Is the total release of carbon-14 to the atmosphere sufficient to enhance the C=14 levels in the vegetation surrounding the reactors. | | | | | | |
| KBC-24414 | | 100-K | 100-K | 1964 JAN | Watson, D.F. | Effects of corrosion upon the adequacy of the 105-KE and 105-KW emergency coolant backup system | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=10145731&Row=7 | When final system acceptance tests were performed on Project CGI-844, 100-K Coolant Backup System, less than the design flow of 32,000 gpm was being achieved. . A study was therefore made to determine the effects of crosstie line cleaning to remove corrosion nodules. The purpose of this document is to review the actual flow requirements of the coolant backup system for the various reactor operating conditions to determine when decisive steps should be taken to increase the capacity of the system to prevent any reduction of operating levels, and to point out the possible solutions being considered if a capacity increase is required. | D,H | Z,C | | M | YES | NO |
| KBC-24706 | Rev. 1 | 100-K | 100-KR-2 | 7/26/2011 | NA-1 | SAMPLING AND ANALYSIS PLAN FOR 105-K EAST BASIN MONOLITHS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0010/DA534745/DA534745_40126_96.pdf | This document describes the removal of The K East Basin. The basin structure disposal plan is known as "grout and remove," wherein the basin is partially filled with grout to provide shielding and encapsulate radioactive debris and contamination. Discrete sections of the grouted concrete basin and wall sections (referred to as monoliths) are cut from the basin and removed for disposal. Encapsulated radioactive debris in the grouted monoliths will be primarily radioactive debris, although some mixed radioactive and dangerous debris may exist. This Sampling and Analysis Plan (SAP) includes descriptions of the processes to achieve end point criteria for sludge removal, encapsulate below water debris, and basin. | D | | Y, S | A | YES | NO |
| KBC-24706 | DRAFT A | 100-K | 100-KR-2 | 2005 SEPT | FH | SAMPLING AND ANALYSIS PLAN FOR 105-K EAST BASIN SAND FILTER MONOLITH | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0010/DA01290889/DA01290889_33505_37.pdf | The 105 K East (KE) Basin sand filter and the surrounding vault are to be removed as necessary components in implementing Hanford Federal Facility Agreement and Consent Order (Ecology et al. 2003) milestone M-034-32 (Complete Removal of the K East Basin Structure). The purpose of this document is to specify the data, data quality control, and data management necessary to dispose of the sand filter monolith as low-level waste at the ERDF. | D,H,P | | | M | NO | NO |
| KBC-24721 | DRAFT D | 100-K | 100-KR-2 | 2006 JUN | FH | SAMPLING AND ANALYSIS PLAN FOR 105-K EAST BASIN SAND FILTER MONOLITH | http://www5.hanford.gov/arpir/?content=detail&AKey=DA02818248 | The 105 K East (KE) Basin sand filter and the surrounding vault are to be removed as necessary components in implementing Hanford Federal Facility Agreement and Consent Order (Ecology et al. 2003) milestone M-034-32 (Complete Removal of the K East Basin Structure). The purpose of this document is to specify the data, data quality control, and data management necessary to dispose of the sand filter monolith as low-level waste at the ERDF. | D,H,P | | | M | NO | NO |
| KBC-25121 | REV 0 DRAFT A | 100-K | 100-KR-2 | 2006 JUN | JE SAILER FH | 105-K EAST BASIN QUALIFIED PROCESS TO ACHIEVE END POINT CRITERIA | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0008/da03255008/da03255008_36338_59.pdf | This document identifies the plans and processes to remove found fuel and sludge from the 105-K East (KE) Basin (Operable Unit 100-KR-2, Site 100-K-42), prepare below water debris for grouting and configure the KE Basin to achieve the end point criteria for found fuel and sludge removal and underwater debris cleaning identified in the End Point Criteria for the K Basins Interim Remedial Action (FH, 2005a). Processes described in this plan also implement the Sampling and Analysis Plan (SAP) for the 105-K East Basin Monoliths related to sludge measurements and debris inventory collection. | D,P | Z | | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KBC-26294 | Rev. B | 100-K | 100-KR-2 | 9/13/2005 | DOE-RL | SAMPLING AND ANALYSIS PLAN FOR WASTE CONTAINING K EAST BELOW WATER CONCRETE SURFACE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/DA871229/DA871229_58828883_79568_113.pdf | This document replaces the previous revision of SNF-18703, Sampling and Analysis Plan For Waste Disposition of KE Basins Wall and Floor Surface Removal Residue. The document SNF-18703 has been cancelled. Some of the activities called out in SNF-18703 have been completed but have been retained in this replacement document in order to maintain a record of the requirements and instructions under which the work had been accomplished. The work that has been accomplished is the data collection, including sample collection and laboratory analysis, associated with the hydrolase equipment demonstration. The equipment demonstration with dose rate and sample collection occurred in December 2003. The sample analysis was completed in the spring of 2004. | D, P | G, Z | Y, S | A | YES | NO |
| KBC-27149 | DRAFT A | 100-K | 100-KR-2 | 2006 FEB | JB BOLLES FH | SAMPLING AND ANALYSIS PLAN FOR 105-K EAST AND WEST BASINS WASTEWATER | http://www5.hanford.gov/arpir/?content=detail&AKey=DA01819482 | This sampling and analysis plan (SAP) presents the rationale and strategy for sampling and analysis activities to support wastewater transfer from the 105-K West and 105-K East Basins via tanker truck to the Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF). This SAP is applicable for routine K Basins water sampling and analysis associated with maintenance operations and to facilitate future hose-in-hose t and K Basins deactivation and decommissioning (D&D) closure activities. | D,P | | Y | M | NO | NO |
| KBC-27149 | Rev.0 | 100-KE | 100-KE | 2005 JUNE | CHRONISTER, G.B. | TECHNOLOGY DEMONSTRATION UNDERWATER HYDROLASING PHASE 0 & 1 & 2 TECHNICAL REPORT | http://www5.hanford.gov/pdwdocs/fsd0001/osti/2005/I0047743.pdf | From September 10 through December 17th, 2003, S.A.Robotics executed Phases 0, I, and II of the Technology Demonstration - Underwater Hydro lasing. Phase 0 was performed at the S.A.Robotics facility in Loveland, Colorado, while Phases I and II were performed at the Hanford K-Basin East Site. . Specially designed equipment was installed and operated within the contaminated environment of 100-K East Basin. This project demonstration was conducted at 105 KE Basin with the expectation that, once proven, this technology can be implemented at Hanford and other DOE sites. | D,P | | X | A | NO | NO |
| KBC-28343 | DRAFT B | 100-K | 100-KR-2 | 2006 APR | JB BOLLES FH | SAMPLING AND ANALYSIS PLAN FOR 105-K EAST AND WEST BASINS WASTEWATER | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0007/da02283706/DA02283706_35153_69.pdf | This sampling and analysis plan (SAP) presents the rationale and strategy for sampling and analysis activities to support wastewater transfer from the 105-K West and 105-K East Basins via tanker truck to the Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF). This SAP is applicable for routine K Basins water sampling and analysis associated with maintenance operations and to facilitate future hose-in-hose t and K Basins deactivation and decommissioning (D&D) closure activities. | D,P | | Y | M | NO | NO |
| LBNL--55679 | REV 1 | 100-K | 100-KR-2 | 2006 JAN | GC TRINER, JL WESTCOTT FH | DISPOSAL OF K-BASIN ION EXCHANGE COLUMN EVALUATION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0009/DA01963824/DA01963824_34714_20.pdf | This document demonstrates the need for waste stabilization, and that the stabilized waste is acceptable for disposal at ERDF, for the the KBC Project, whic has six spent Ion Exchange Columns (IXC) located in the 105-K East (KE) Basin that exhibit extremely high dose rates. | D | | Y | A | NO | NO |
| N/A | | 100-K | 105-K | 2010 OCT | DOE-RL | 105K EAST REACTOR DECOMMISSIONING ENGINEERING EVALUATION/COST ANALYSIS PUBLIC COMMENT PERIOD | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0060/0084218/105%20KE%20%20fact%20sheetl.pdf | The Tri-Party Agreement (TPA) Agencies – DOE, the EPA, and Ecology are seeking public comment on an Engineering Evaluation/Cost Analysis (EE/CA) that evaluates alternatives for demolishing the 105-K East Reactor at the Hanford Site. A 30-day public comment period runs from October 18 – November 17, 2010. The TPA agencies are asking for public input on the alternatives and the recommended approach. | D | G | Y,X | | NO | YES |
| N/A | | 100-K | 100-KR-2 | 2005 JUN | | ACTION MEMORANDUM FOR NONTIME CRITICAL REMOVAL ACTION FOR 100-K AREA ANCILLARY FACILITIES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0045/DA01291736/DA01291736_58785428_79203_40.pdf | The purpose of this action memorandum is to document approval of the non-time-critical removal actiondescribed herein for 27 buildings and structures located in the northern section of the 100-K Area of the Hanford Site. | D,H,P | E | Y,S,X | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N/A | | 100-K | 100-KE | 2009 MAY | N/A | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS/WORKPLANS IN ACCORDANCE WITH THE TRI PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS DOE/RL-2005-26 REVISION 1 REMOVAL ACTION WORK PLAN FOR 105DE 105KW REACTOR FACILITIES AND ANCILLARY | http://www5.hanford.gov/arpir/?content=findpage&AKey=0905200844 | This change modifies an approved work plan/document. Changes to the Agreement. Section 4.2, WASTE MANAGEMENT PLAN, second paragraph, identifies "site-specific waste management instructions" for field instructions on waste designation, packaging, and labeling. Changing title to "site-specific waste packaging and labeling instructions" for consistency with contractor's procedures and processes. APPENDIX C, AIR MONITORING SECTION FOR 105-KE/105-KW REACTOR FACILITIES AND ANCILLARY FACILITIES, Table C-1 List of 100-K Area Reactor Facilities and Other Ancillary Facilities, added waste sites included in the demolition of 1706- KE onto the list for that building. The attachment shows the redline additions for Sections 4.2 and Appendix C, Table C-I. | D | | Y | | NO | NO |
| N/A | | 100-D 100-K 100-H | 100-HR-3 100-KR-4 | 2003 FEB | A TORTOSO DOE-RL | CHROMIUM VERSUS TIME PLOTS FOR 199-D8-70 AND 199-K-117A | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0017/D9222220/D9222220_32474_3.pdf | Data files for wells 199-D8-70 and 199-K-1 17A. These are the two wells that have been sampled since 1997 with a kabis sampler in accordance with the DOE/RL-96-90, the Interim Action Monitoring Plan for 199-HR-3 and 100-KR-4 Operable Units. The wells have been sampled at 2 or 3 depths monthly. The plots clearly show that there really hasn't been any stratification of chromium in these wells. | | | Y | | | |
| N/A | | 100-K | 100-KR-4 | 2003 JAN | L GADBOIS EPA | CLARIFICATION OF CERCLA RISK ASSESSMENTS FOR 100-KR-4 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9216278/D9216278_32296_3.pdf | Letter stating that an audit team concluded that EPA had not obtained sufficient information from DOEto determine whether an interiin remedial action was necessary for contaminated groundwater within the reactor section of the 100-K Area. The audit report went on to state that EPA and DOE concluded, without completing a formal assessment, that an interim remedial action was unnecessary for the reactor section. | D,P | | Y | | YES | NO |
| N/A | | 100 AREA | 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-2 100-HR-2 100-KR-2 | 2000 SEPT | CE FINDLEY, K KLEIN, MA WILSON EPA, DOE-RL, ECOLOGY | DECLARATION OF RECORD OF DECISION FOR 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-2 100-HR-2 100-KR-2 100 AREA BURIAL GROUNDS HANFORD SITE BENTON COUNTY WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0022/D8453142/D8453142_27600_63.pdf | This decision document presents the selected interim remedial actions for portions of the 100 Area. The response action selected in this Interim Action Record of Decision (ROD) is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment. Such a release or threat of release may present an imminent and substantial endangerment to public health, welfare, or the environment. | D,H,P | G,Z,E | Y,S,X | M | YES | YES |
| N/A | | 100-K | 100-KR-2 | 1999 SEPT | C CLARKE, K KLEIN, MA WILSON EPA, DOE-RL, ECOLOGY | DECLARATION OF RECORD OF DECISION FOR 100-KR-2 OU USDOE HANFORD | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0024/D199158532/D199158532_20548_51.pdf | This Record of Decision (ROD) addresses the contents of the K Basins, which are located at the Hanford Site. | D,H,P | Z | Y,X | | YES | YES |
| N/A | | 100-K,B/C,D, H,F, N | 100-K,B/C,D, H,F, N | 2004 JUN | Singleton, Michael J., Katharine Maher, Donald J. DePaoloa,, Mark E. Conrad, and P. Evan Dresel | Determining flow, recharge, and vadose zone drainage in an unconfined aquifer from groundwater strontium isotope measurements, Pasco Basin, WA. | http://www.osti.gov/bridge/purl.cover.jsp?purl=/891195-c0jvmH/ | Strontium isotope compositions (87Sr/86Sr) measured in groundwater samples from 273 wells in the Pasco Basin unconfined aquifer below the Hanford Site show large and systematic variations that provide constraints on groundwater recharge, weathering rates of the aquifer host rocks, communication between unconfined and deeper confined aquifers, and vadose zone-groundwater interaction. The impact of millions of cubic meters of wastewater discharged to the vadose zone (103-105 times higher than ambient drainage) shows up strikingly on maps of groundwater 87Sr/86Sr. Extensive access through the many groundwater monitoring wells at the site allows for an unprecedented opportunity to evaluate the strontium geochemistry of a major aquifer, hosted primarily in unconsolidated sediments, and relate it to both long term properties and recent disturbances. Groundwater 87Sr/86Sr increases systematically from 0.707 to 0.712 from west to east across the Hanford Site, in the general direction of groundwater flow, as a result of addition of Sr from the weathering of aquifer sediments and from diffuse drainage through the vadose zone. | D,H,P | G,Z,C,T | S,X,P | A | No | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N/A | | 100-K | 100-KR-2 | 2005 JUN | DD OPALSKI, KA KLEIN, MA WILSON EPA, DOE-RL, ECOLOGY | DOE 100-K AREA K BASINS HANFORD SITE 100 AREA BENTON COUNTY AMENDED RECORD OF DECISION DECISION SUMMARY AND RESPONSIVENESS SUMMARY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0010/DA01060377/DA01060377_32885_44.pdf | In March-April 1999 The DOE, the EPA, and Ecology signed the K Basins Interim Action ROD. The ROD directed removal of the spent nuclear fuel (SNF), sludge, water, and debris from the two K Basins in Hanford's 100 K Area. The ROD also directed that the basins be decontaminated to the extent necessary to make it safe to drain the water from the basins which is used for shielding and contamination control from radioactivity in the basins. The amended remedy changes the sludge disposition and how underwater debris is retrieved, treated, and disposed from both the 105-K East and 105-K West Spent Nuclear Fuel (SNF) Basins. These changes will result in increased protection to human health and | D,H,P | | Y | | YES | YES |
| N/A | | 100-K | 100-KR-2 | 2006 MAR | L GADBOIS EPA | EPA APPROVAL OF FEBRUARY 2006 REV 001 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0009/DA02035151/DA02035151_34764_21.pdf | This remedial action work scope is for the removal and disposal of waste material and associated soil from the 118-K-1 Burial Ground located at the 100-K Area. Test pitting, trenching, and/or boring to support characterization may begin before burial ground remediation starts to assist in verifying design parameters, and will continue for the life of the burial ground remediation project. | D | | Y,X | | NO | NO |
| N/A | | 100-K | 100-KR-4 100-HR-3 | 1996 JUL | LE GADBOIS EPA | EPA COMMENTS ON REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR 100-HR-3 AND 100-KR-4 GROUNDWATER OU INTERIM ACTION BHI-00765 DRAFT A | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0030/D196170928/D196170928_13553_17.pdf | EPA Comments on "Remedial Design Report and Remedial Action Work Plan for the 100-HR-3 and 100-KR-4 Groundwater Operable Units' Interim Action", BHI-00765 Draft A. | D,P | | Y,P | | NO | NO |
| N/A | | 100-K | 100-KR-2 | 1995 APR | DOE-RL | EVALUATIONS OF HANFORD STORAGE OPTIONS FOR 100-K BASIN SPENT NUCLEAR FUEL VARIOUS FACILITIES OF HANFORD SITE HAVE BEEN EVALUATED FOR STORAGE OF 100-K BASIN SPENT NUCLEAR | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196023946/D196023946_3573_7.pdf | Various facilities of the Hanford Site have been evaluated for storage of K Basin Spent Nuclear Fuel. This report (attachments) summarize the facilities and the results of the evaluations. | D,P | | | A | YES | YES |
| N/A | | 100 AREAS | 100-HR-3 100-KR-4 | 2009 AUG | N/A | EXPLANATION OF SIGNIFICANT DIFFERENCES FOR THE 100-HR-3 AND 100-KR-4 OPERABLE UNITS INTERIM ACTION RECORD OF DECISION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0052/0096029/100-HR-3%20KR-4%20ESD%20Final.pdf | The 100-HR-3 and 100-KR-4 groundwater OUs have remediation is being conducted under CERCLA, in accordance with an interim action Record of Decision (ROD) for the US-DOE 100 Area. There are two significant differences being made to the ROD by this ESD: (1) Projected cost for the pump-and-treat operations is being increased and the cost will be more than 50% of the estimate in the ROD; and (2) Re-injection location requirements for treated water are being revised to allow reinjection other than in upgradient locations to control migration of the plume and to prevent the 100-KR-4 chromium plume from converging with and interfering with remedial action of the strontium-90 plume at the 100-N area. | D,H,P | Z | Y,S,X,P | | NO | NO |
| N/A | | 100-K | 100-KR-2 | 1997 JULY | EPA DOE ECOLOGY | FACT SHEET CHANGES PROPOSED TO HANFORD TPA NEW MILESTONES FOR K BASIN AND SPENT NUCLEAR FUEL PROJECT AND K BASIN FACILITY TRANSITION ACTIVITIES REACTORS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0028/D197210286/D197210286_16150_2.pdf | Fact sheet calling for public comment on proposed Tri-Party Agreement milestones and target dates for the U.S. Department of Energy's (DOE) K Basins Spent Nuclear Fuel Project. | D,P | | Y | | NO | NO |
| N/A | | 100-K | 100-KR-2 | N/A | DOE, EPA, ECOLOGY | FACT SHEET CLEANUP AND DEMOLITION AT K REACTOR AREA | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0006/da02850327/da02850327_35951_4.pdf | The U.S. Department of Energy, Washington State Department of Ecology, and the U.S. Environmental Protection Agency would like input on the Engineering Evaluation-Cost Analysis for the 105-Y-F. and 105-KW Reactor Facilities and Ancillary Facilities. The EE/CA evaluates alternatives for interim storage of the reactor buildings and suppo rting facilities at K Area. | D | | | | NO | YES |
| N/A | | 100-K | 100-KR-2 | N/A | DOE, EPA, ECOLOGY | FACT SHEET PROPOSED PLAN FOR 100-K BASIN INTERIM REMEDIAL ACTION SPENT NUCLEAR FUEL PROJECT | http://www5.hanford.gov/arpir/?content=detail&AKey=D199091192 | The U.S. Environmental Protection Agency and the U.S. Department of Energy want opinionS on the Proposed Plan for the K Basins Interim Remedial Action. The action includes removing spent nuclear fuel, sludge, water, and debris from the basins per previous commitments to the public. It also includes treatment as appropriate to make the sludge safe for interim storage and/or disposal. | D | | | | NO | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N/A | | 100 AREAS | 100-D/DR 100-HR-3 100-KR-4 | 1995 SEPT | EPA DOE ECOLOGY | FOCUS ON HANFORD CLEANUP REQUEST FOR COMMENTS ON 100-HR-3 AND 100-KR-4 PROPOSED PLANS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195066206/D195066206_1469.pdf | A request for comment regarding 100 Area ground water cleanups, protecting salmon spawning beds, treatment options with alternatives, including the preferred one. These plans propose cleanup actions near five reactors, the D, DR and H reactors in an area designated the 100-HR-3 OU and the K-West and K-East reactors in the 100-KR-4 Operable Unit. | D | E | Y | | YES | YES |
| N/A | | 100 AREA | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 1995 APR | LE GADBOIS ECOLOGY EPA | HANFORD CLEANUP COSTS IN PERSPECTIVE PUMP AND TREAT FOR HEXAVALENT CHROMIUM | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196025488/D196025488_3664_58.pdf | This letter provides a perspective to cleanup costs at the 100 Area, and illustrates the potential for cost savings. The Boomsnub site in Vancouver, Washington provides an analog for pump-and-treat operations for chromium in the 100 Area at Hanford. Analogous aspects of Boomsnub include the following: National Priority Listed (NPL) Superfund site, Cleanup is administered by a federal agency (EPA), Similar contaminant, similar media, similar remedial process. | D | | | A | NO | YES |
| N/A | | 100-K | K BASINS | 2009 FEB | DOE-RL | HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER MODIFICATIONS REGARDING ACCELERATED GROUNDWATER AND SOILS MILESTONES/FY 2009 FUNDING / WASTE MANAGEMENT/K BASINS | http://www5.hanford.gov/arpir/?content=findpage&AKey=0098129 | This document presents several sections outlining changes being made to several documents, processes, and plans being made in the 100-K Area, as well as other sites. The Milestones are presented, followed by the changes being prepared and explanations/clarifications for said changes. | D,P | | Y,P | M | NO | NO |
| N/A | | 100 AREA 200 AREA | 100 AREA 200 AREA | 1999 JUL | C CLARKE, K KLEIN, M WILSON EPA, DOE-RL, ECOLOGY | INTERIM ACTION RECORD OF DECISION 100 AREA REMAINING SITES 100-BC-1 100-BC-2 100-DR-1 100-DR-2 100-FR-1 100-FR-2 100-HR-1 100-HR-2 100-KR-1 100-KR-2 100-IU-2 100-IU-6 AND 200-CW-3 OU HANFORD SITE BENTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0024/D199153689/D199153689_20266_84.pdf | This decision document presents the selected interim remedial actions for portions of the U.S. Department of Energy (DOE) Hanford 100 Area (100 Area Remaining Sites) 100 Area reactor waste and portions of the 200 Area. | D,H,P | G,Z,E | Y | | YES | YES |
| N/A | | 100-K | 100-K | 2010 JAN | MS MCCORMICK DOE/RL | MEETING MINUTES RIVER CORRIDOR/REMEDIATION OF 100K AREA TPA MILESTONE RIVIEW RIVER CORRIDOR DECEMBER 10 2009 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0054/1001260295/[1001260295].PDF | Meeting minutes discussing the TPA quarterly review. DOE-RL distributed a handout on the quarterly summary for the period September through November 2009, the milestone status, significant accomplishments, significant actions planned, performance summaryl and issues. | D | | Y | | YES | NO |
| N/A | | 100 AREAS | 100-D 100-H 100-K | 2010 APR | MS MCCORMICK, JA HEDGES DOE/RL, ECOLOGY | MEETING MINUTES RIVER CORRIDOR/REMEDIATION OF 100K AREA TRI PARTY AGREEMENT MILESTONE REVIEW MEETING MINUTES MARCH 18 2010 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0055/1004260007/[1004260007].PDF | Meeting minutes regarding a DOE distributed handout on the quarterly summary for the period December 2009 through February 2010, including the milestone status, significant accomplishments, significant actions planned, performance summary, and issues. All of the milestones are currently reflected as on schedule. | D,P | | Y | | YES | NO |
| N/A | | 100-K | 100-KR-2 | 2002 JUL | JE RASMUSSEN, WW BALLARD DOE-ORP, DOE-RL | MEETING MINUTES TPA MILESTONE REVIEW JULY 23 2002 | http://www5.hanford.gov/arpir/?content=detail&AKey=D9154823 | Meeting minutes that contain an attachment focusing on M-34 Milestone review, Hanford Spent Nuclear Fuel Project, and the K Basins. | D,P | | | | NO | NO |
| N/A | | 100 AREAS | 100-K | 2009 APR | MS MCCORMICK DOE/RL | MEETING MINUTES TPA MILSTONE REVIEW RIVER CORRIDOR/REMEDIATION OF 100K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0050/0904240155/[0904240155].PDF | Meeting minutes from March of 2009 that contains updates regarding the K Basins and includes comments about excessive water flooding and the information needed to address this problem. | D,P | Z | Y | | NO | NO |
| N/A | | 100-K | 100-KR-1 100-KR-4 | 1990 JUL | JD GOODENOUGH, DOE-RL | MEETING MINUTES UNIT MANAGERS MEETING 100-KR-1 100-KR-4 OU JUNE 13 1990 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0041/D196017813/D196017813_3102_39.pdf | 100-KR-1/KR-4 Operable Units Managers Meeting minutes which include a presentation summarizing an update at these specific OUs. | D | | | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N/A | | 100-K | 100-KR-2 | 2002 OCT | LE GADBOIS EPA | NOTICE OF CONSTRUCTION APPROVALS FROM DEPARTMENT OF HEALTH | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9177852/D9177852_31920_20.pdf | Notice of Construction Approvals from the Department of Health that apply to Spent Nuclear Fuel Removal from the 105-KW and 105-KE fuel storage basins. These documents are transmitted to the Department of Energy for your use in conduct of these activities. | D | | Y | | NO | NO |
| N/A | | 100-K | 100-KR-4 | 2000 AUG | LE GADBOIS EPA | NOTICE OF VIOLATION CHROMIUM CONTAMINATED WATER DISCHARGE AT 100-KR-4 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0022/D8415305/D8415305_27409_4.pdf | Letter stating The U.S. Department of Energy (DOE) has recently violated two requirements of the Record of Decision (ROD) for the 100-KR-4 Operable Unit. These violations resulted in release of contaminated water to the groundwater of the 100-K Area in excess of discharge standards. | D | | Y,X | | NO | NO |
| N/A | | 100 AREAS | 100-HR-3<br>100-KR-4<br>100-NR-2 | 1995 NOV | LE GADBOIS EPA | ORIGINAL PUBLIC COMMENTS ON PROPOSED PLANS FOR HANFORD 100-HR-3 AND 100-KR-4 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195063780/D195063780_1262.pdf | A request for comment regarding 100 Area ground water cleanups, protecting salmon spawning beds, treatment options with alternatives, including the preferred one, and many public resposes to this request. | D | E | Y | | YES | YES |
| N/A | | 100-K | 100-KR-2 | 1994 FEB | DOE | PLAN OF ACTION TO RESOLVE SPENT NUCLEAR FUEL VULNERABILITIES PHASE I VOLUME I EXECUTIVE SUMMARY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199095645/D199095645_19437_12.pdf | This report presents the first phase of a three -phased approach to remedy vulnerabilities associated with the storage of spent fuel and irradiated materials. It demonstrates the "openness" the Department of Energy is pursuing as part of its new way of doing business. | D,P | G,Z | Y,S,X | A,M | YES | YES |
| N/A | | 100-K | 100-KR-2 | 1994 APR | DOE | PLAN OF ACTION TO RESOLVE SPENT NUCLEAR FUEL VULNERABILITIES PHASE II | http://www5.hanford.gov/arpir/?content=detail&AKey=D199095646 | This report presents the first phase of a three -phased approach to remedy vulnerabilities associated with the storage of spent fuel and irradiated materials. It demonstrates the "openness" the Department of Energy is pursuing as part of its new way of doing business. | D,P | G,Z | Y,S,X | A,M | YES | YES |
| N/A | | 100-K | 100-KR-2 | 1994 OCT | DOE | PLAN OF ACTION TO RESOLVE SPENT NUCLEAR FUEL VULNERABILITIES PHASE III | http://www5.hanford.gov/arpir/?content=detail&AKey=D199095648 | This report presents the first phase of a three -phased approach to remedy vulnerabilities associated with the storage of spent fuel and irradiated materials. It demonstrates the "openness" the Department of Energy is pursuing as part of its new way of doing business. | D,P | G,Z | Y,S,X | A,M | YES | YES |
| N/A | | 100 AREA | 100-HR-3<br>100-KR-4 | 2000 OCT | D AUDET USFWS | POTENTIAL FOR CHROMIUM TO ADVERSELY AFFECT CHINOOK SALMON IN HANFORD REACH OF COLUMBIA RIVER WASHINGTON USA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0021/D8793346/D8793346_29024_63.pdf | The Hanford Natural Resource Trustee Council in conjunction with the U.S. Fish and Wildlife Service and the U.S. Geological Survey designed this study to assess the effects of chromium on chinook salmon under exposure conditions similar to those of the Hanford Reach of the Columbia River. | D,P | Z,E | Y,X | A | YES | NO |
| N/A | | 100-K | 100-K | 1997 JUN | DOE-RL | PROPOSED TPA MODIFICATIONS AND REFERENCE DOCUMENTS FOR 100-K BASINS SPENT NUCLEAR FUEL PROJECT M-34-00A AND DISPOSITION OF HANFORD SURPLUS REACTORS M-93-00 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0028/D197220069/D197220069_16164_128.pdf | K Basin review including, but not limited to, Focus and Fact sheets, budget profiles, letters and transmittals, Agreement and Consent orders, milestone markers. | D,H,P | G,Z | Y,S,X | A,M | YES | YES |
| N/A | | 100 AREAS | 100-K | 2009 MAY | KEN NILES | PUBLIC COMMENT ON TENTATIVE AGREEMENT ON HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER MODIFICATIONS REGARDING ACCELERATED GROUNDWATER AND SOILS | http://www5.hanford.gov/arpir/?content=detail&AKey=0907130939 | Letter from the Oregon Department of Energy concerning the proposed changes to milestones and clean-up procedures involving the K Basins. | D | | Y | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N/A | | HANFORD SITE | HANFORD SITE | 1985 JAN | LEAGUE OF WOMEN VOTERS | RADIATION IN EASTERN WASHINGTON; FOLLOWING THE TRAIL OF NUCLEAR WASTE | RL - 363.179 | OVERVIEW AND RESPONSE TO CONCERNS ABOUT ADVERSE HEALTH EFFECTS IN EASTERN WA FROM ACTIVITIES ON THE HANFORD NUCLEAR RESERVATION | D,H,P | | Y,S,X | | YES | NO |
| N/A | | ENTIRE HANFORD SITE | ENTIRE HANFORD SITE | 1995 JAN | DOE, ECOLOGY, EPA | RECORD OF DECISION USDOE HANFORD ERDF HANFORD SITE BENTON COUNTY WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196041064/D196041064_4863_103.pdf | This decision document presents the selected remedial action for the USDOE Hanford Site Environmental Restoration Disposal Facility, which was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and to the extent practicable, the National Oil and Hazardous Substances Poiiution Contingency Plan. Presents a background of the site with a list of alternative actions. A comment section is included, but certain figures in the report are missing. | D,H,P | G,Z,E | Y,S,X | M | YES | YES |
| N/A | | 100-K | 100-KR-4 | 1995 APR | LE GADBOIS ECOLOGY EPA | REGULATOR REVIEW COMMENTS FOCUSED FEASIBILITY STUDY REPORT DOE/RL 94-48 DRAFT A AND PROPOSED PLAN FOR INTERIM REMEDIAL MEASURE DOE/RL 94-113 DRAFT A AT 100-KR-4 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196025301/D196025301_3651_16.pdf | Combined comments from the U.S. Environmental Protection Agency and the Washington State Department of Ecology for "100-KR4 Operable Unit Focused Feasibility Study Report", DOE/RL-94-48, Draft A; and "Proposed Plan for Interim Remedial Measure at the 100-KR-4 Operable Unit", DOE/RL-94-113, Draft A. | D | E | Y | | NO | NO |
| N/A | | HANFORD SITE | HANFORD SITE | 1993 JUL | GOVERNMENTAL DYNAMICS | RICHLAND ENVIRONMENTAL QUALITY PROGRAM; PRELIMINARY ANALYSIS AND DESIGN REPORT | RL - 363.7287 | THIS DOCUMENT CONTAINS FOUR COMPONENTS: HANFORD MONITORING, ECONOMIC DEVELOPMENT, PUBLIC INVOLVEMENT, EDUCATION AND COMMUNICATION, AND ENVIRONMENTAL REGULATORY COMPLIANCE | D,H | E | | | NO | YES |
| N/A | | 100 AREA | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 1999 JUL | DOE-RL | RISK IMPACT TECHNICAL REPORT FOR HANFORD GROUNDWATER VADOSE ZONE INTEGRATION PROJECT FINAL DRAFT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0024/D199158735/D199158735_20659_120.pdf | The purpose of this technical report is to describe methods for evaluating different kinds of risks and other impacts that could result from multiple contamination sources at the Hanford site. The overall goal is to strengthen the scientific foundation of environmental decisions to be made, to help the groundwater/vadose zone component of the environmental management program move forward through the assessment and implementation phase with the best knowledge available. | D,H | Z,E | Y,X | A | YES | YES |
| N/A | | 100-K | 100-KR-2 | 1997 APR | C CLARKE,<br>JD WAGONER,<br>T FITZSIMMONS<br>EPA,<br>DOE-RL,<br>ECOLOGY | TENTATIVE AGREEMENT ON TPA NEGOTIATION FOR COMPLETION OF TRANSITION AT 100-K EAST AND 100-K WEST BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0019/D9085111/D9085111_31248_11.pdf | Pursuant to the parties Inter-Agency Management Integration Team (IAMIT) Resolution of Dispute, the parties have concluded K Basins negotiations and have reached tentative agreement. This is a summary and copy of this tentative agreement. | D,H,P | | Y | M | NO | NO |
| N/A | | HANFORD SITE | 100-K | 2009 AUG | DOE-RL | TRI PARTY AGREEMENT FINAL APPROVAL PACKAGE FOR THE TENTATIVE AGREEMENT ON HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER MODIFICATIONS REGARDING ACCELERATED GROUNDWATER AND SOILS MILSTONES/FY2009 FUNDING/WASTE MANAGEMENT/K BASINS AND OTHER ISSUE SOLUTIONS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0052/D0908130133/[0908130133].PDF | Approval of this change package modifies the Hanford Federal Facility Agreement and Consent Order M-16-00A major milestone, two interim milestones, and deletes one interim milestone. This change package establishes a new M-016-OOC major milestone and six new M-16 interim milestones. The M-34 series milestones for remediation of the K Basins are deleted as the remaining work scope is being moved to the M- 16 series per this change package to promote integration with 100 K Area closure activities. The M-034-30 interim milestone is being deleted per change package M-34-08-03 and is being re-established as M-016-140. The delay in treating the sludge and removing the K West Basin is now impacting soil remediation efforts in the surrounding area and the Parties have agreed that the two activities should be more closely aligned in the M- 16 milestone series. | D | | Y,X,P | | NO | YES |
| N/A | | 100 AREA | 100 AREA | 1991 DEC | WHC | WIDS GENERAL SUMMARY REPORT DECEMBER 2 1991 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196082668/D196082668_7558_56.pdf | A list of wells in the 100 Area, including brief descriptions including descriptions, waste types and amounts, and general comments. | D | | Y,S | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not listed | | 100-K | 100-K | 2007 Jan | unknown | ACTION MEMORANDUM FOR NON TIME CRITICAL REMOVAL ACTION FOR 105-KE AND 105-KW REACTOR FACILITIES AND ANCILLARY FACILITIES | http://www5.hanford.gov/arpir/?content=findpage&AKey=DA04316914 | The removal action to be implemented for the remaining buildings and structures at the K Area is outlined in the Engineering Evaluation/Cost Analysis for the 105-KE and 105-KW Reactor Facilities and Ancillary Facilities (DOE-RL 2005a), that was prepared by the U.S. Department of Energy (DOE). This is the second engineering evaluation/cost analysis (EE/CA) prepared for disposition of facilities in the 100-K Area. The Engineering Evaluation/Cost Analysis for the 100-K Area Ancillary Facilities (DOE-RL 2004) addressed 27 support buildings in the 100-K Area. That EE/CA recommended deactivation followed by demolition of each building as the preferred alternative for disposition of the facilities. | D,H | E | Y,S,X | A | NO | NO |
| Not listed | | 100-BC<br>100-DR<br>100-FR<br>100-HR | 100-BC-1<br>100-DR-1<br>100-DR-3<br>100-FR-2<br>100-HR-1 | 1997 June | NA, EPA DOE ECOLOGY | PROPOSED TPA MODIFICATIONS AND REFERENCE DOCUMENTS FOR 100-K BASINS SPENT NUCLEAR FUEL PROJECT M-34-00A AND DISPOSITION OF HANFORD SURPLUS REACTORS M-93-00 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D197220069 | The release of CERCI,A hazardous substances to the environment, concerns regarding basin age and integrity, and mounting concerns regarding the hazards posed by basin contents have resulted in an agreement between the parties that accelerated removal of K East and K West Basin contents (spent nuclear fuels, sludges and debris, and basin waters) Is necessary. DOE, EPA, and Ecology (the Parties) have further agreed that use of a CERCI A "removal action" is warranted in that it affords the most expeditious regulatory vehicle for ensuring removal. | D, H | | | A | | NO |
| PNL-10195 | | 100-K | 100-K | 1998 Dec | unknown | DOE HANFORD SITE INTERIM REMEDIAL ACTION FOR SPENT NUCLEAR FUEL 100-K BASIN BRIEFING PACKAGE FOR EPA NATIONAL REMEDY REVIEW BOARD | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199029069/D199029069_18611_52.pdf | The Hanford site is a 560 miles Federal facility operated by the U.S. Department of Energy (DOE) near Richland, Washington. From 1943 to 1990 the primary mission of the Hanford Site was the production of nuclear materials for the Nation's defense. Nuclear fuel storage basins (100-K East and 100-K West basins) are currently being used to store irradiated nuclear fuel elements from past operations (figure 3, inside a K basin building). | D,H,P | Z | Y,S,X,P | A | NO | NO |
| PNL-10398 | | 100-K | 100-KR-2 | 1995 JAN | PNL | 100-K BASIN SPENT FUEL SLUDGE TREATMENT ALTERNATIVES STUDY VOLUME I REGULATORY OPTIONS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199091617/D199091617_19414_52.pdf | The scope of this report is to assess the technical and regulatory options for managing the sludges, including schedule and cost, impacts, and to present Strategies for establishing a preferred path. The information provided is intended to assist WHC project management in developing a recommended sludge management approach. | D,P | | Y,X | | NO | YES |
| PNL-10398 | | 100 AREA | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 1994 NOV | PD THORNE<br>PNL | THREE DIMENSIONAL CONCEPTUAL MODEL FOR HANFORD SITE UNCONFINED AQUIFER SYSTEM FY 1994 STATUS REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199061222/D199061222_19305_122.pdf | This report provides an update on the development of a three-dimensional conceptual model of ground-water flow in the unconfined aquifer system for the Hanford Site. The conceptual model will provide a basis for three-dimensional numerical modeling and will enable better understanding and more accurate predictions of contaminant transport under changing site conditions. | D | G,Z | | A,M | NO | NO |
| PNL--10952 | | 100-K | 100-KR-2 | 1995 JAN | PNL | 100-K BASIN SPENT FUEL SLUDGE TREATMENT ALTERNATIVES STUDY VOLUME II TECHNICAL OPTIONS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199091618/D199091618_19415_174.pdf | This document is Volume II of a two-volume examination of options for cleanup of the spent fueT storage basins in the 100-K Area. In this volume, the recommended strategy from Volume I, Section 6.0, of maintaining the classification of the sludge as spent nuclear fuel (SNF) until the fuel and other sludge components are separated is evaluated in terms of cost, schedule, and technical risk. | D,P | | Y,X | | NO | YES |
| PNL-3127 | | 100-K | 100-K | 1996 Feb | Houser, M.R. | Efficacy of rock doves at the Hanford site, Washington, as radiological indicators | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=5&osti_id=206375&Row=23 | Site faithfulness and general movement patterns of five rock dove (Columba livia) flocks were estimated in order to evaluate their efficacy as radiological indicators on the Hanford Site. Of 367 individually marked birds, 311 were resighted or recaptured at least once during onsite and offsite monitoring. | P | C,E,T | | A | NO | NO |
| PNL-3127 | | 100 AREA | 100-BC-5<br>100-HR-3<br>100-KR-1<br>100-KR-4<br>100-NR-1 | 1980 APR | MJ SULA<br>PNL | RADIOLOGICAL SURVEY OF EXPOSED SHORELINES AND ISLANDS OF COLUMBIA RIVER BETWEEN VERNITA AND SNAKE RIVER CONFLUENCE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0040/D196044964/D196044964_5104_174.pdf | This document describes a radiological survey to evaluate the magnitude and distribution of radioactive contamination on the exposed shorelines of the Columbia River along and downstream of the Hanford Site. Areas considered in the survey include the riverbank, broad flood plains, low lying peninsulas, sloughs and islands from the uppermost point of production reactor discharge at 100-B Area to the confluence of the Snake and Columbia Rivers. | D,H,P | G,Z,T | Y,S,X | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNL-7500 | | 100 AREA<br>200 AREA<br>300 AREA | 100-HR-3<br>100-KR-4 | 1990 DEC | RL DIRKES<br>PNL | 1988 HANFORD RIVERBANK SPRINGS CHARACTERIZATION REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196110656/D196110656_10667_82.pdf | This report presents the results of a special study performed by the Surface Environmental Monitoring Project (SEMP) to investigate the radiological and nonradiological characteristics of the riverbank springs entering the Columbia River along the Hanford Site shoreline. | D,P | Z | Y,S,X,P | A | YES | NO |
| PNL-7500 | | HANFORD SITE | HANFORD SITE | 1985 MAY to 1988 MAY | PNNL | ENVIRONMENTAL MONITORING AT HANFORD FOR 1984 to 1987 | RL - 363.7398 | SURVEILLANCE ACTIVITIES PERFORMED, SAMPLES OF MEDIA COLLECTED, AND RADIONUCLIDE CONCENTRATIONS DETERMINED ARE DISCUSSED, AS WELL AS IMPACTS THESE RESULTS HAVE. | D,H,P | G,Z,E,C,T | Y,X | A | YES | NO |
| PNL-8073 | | 100 AREA<br>200 AREA<br>300 AREA | 100 AREA<br>200 AREA<br>300 AREA | 1992 JUNE | JC EVANS<br>PNL | HANFORD SITE GROUNDWATER MONITORING FOR 1990 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196103572/D196103572_9723_94.pdf | This annual report discusses results of ground-water monitoring at the Hanford Site during 1990. In addition to the general discussion, the following topics are discussed in detail: 1) carbon tetrachloride in the 200-West Area; 2) cyanide in and north of the 200-East and the 200-West areas; 3) hexavalent chromium contamination in the 100, 200, and 600 areas; 4) tri-chloroethylene in the vicinity of the Solid Waste Landfill, 100-F Area, and 300 Area; 5) nitrate across the Site; 6) tritium across the Site; and 7) other radionuclide contamination throughout the Site. | D,P | | Y,S,X,P | A | NO | NO |
| PNL-8143 | | 100 AREA | 100-B/C 100-D 100-F 100-H 100-K 100-N | 1992 SEPT | JC CHATTERS<br>PNL | FY 1991 REPORT ON ARCHAEOLOGICAL SURVEYS OF 100 AREAS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196109574/D196109574_10592_30.pdf | During spring and summer of 1991, the HCRL conducted a literature review and arohaeological survey of the 100 Area reactor compounds and adjacent Columbia River shorelines on the Hanford Site. The areas in question, including the 100-B/C,100-D, 100-F, 100-H, 100-K, and 100-N areas, cover a total of 1834 ha, of which 770 ha remained undisturbed enough to warrant archaeological survey. | D,H | G,E,T | | A | NO | NO |
| PNL-8332 | | HANFORD SITE | HANFORD SITE | 1992 OCT | PNNL | HANFORD SITE GROUND-WATER MONITORING FOR 1991 | RL - 553.79 | MONITORING ACTIVITIES WERE CONDUCTED TO DETERMINE DISTRIBUTION OF RADIONUCLIDES AND HAZARDOUS CHEMICALS PRESENT IN GROUNDWATER AS A RESULT OF SITE OPERATIONS AND RELATE THE DISTRIBUTION OF THESE CONTAMINANTS. | D,P | G,Z | Y,S,X,P | A,M | YES | YES |
| PNL--8819 | | 100 AREA | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 1992 NOV | PD THORNE<br>PNL | STATUS REPORT ON DEVELOPMENT OF THREE DIMENSIONAL CONCEPTUAL MODEL FOR HANFORD SITE UNCONFINED AQUIFER SYSTEM | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199061224/D199061224_19307_54.pdf | This report presents the status of development of a three-dimensional conceptual model for the unconfined aquifer system at Hanford. A conceptual model is needed to support development of a realistic three-dimensional numerical model for predicting ground-water flow and the transport of contaminants. | D | G,Z,T | Y | M | NO | NO |
| PNL--8916 | | 100-K, 100-F | 100-K, 100-F | 1993 Sep | Wright, M.K. | Fiscal year 1992 report on archaeological surveys of the 100 Areas, Hanford Site, Washington | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10185935&Row=19 | During FY 1992, the Hanford Cultural Resources Laboratory (HCRL) conducted a field survey of the 100-HR-3 Operable Unit (600 Area) and tested three sites near the 100 Area reactor compounds on the US Department of Energy`s Hanford Site at the request of Westinghouse Hanford Company. The results of the FY 1992 survey and test excavation efforts are discussed in this report. 518 ha in the 100-HR-3 Operable Unit and conducted test excavations at three prehistoric sites near the 100-F and 100-K reactors to determine their eligibility for listing on the National Register of Historic Places. | D,H | G,E,T | | A | NO | YES |
| PNL-8971 | | 100-K | 100-K | 1993 Oct | Becker, J.M. | A preliminary survey of selected structures on the Hanford Site for Townsend`s big-eared bat (Plecotus townsendii) | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=1&osti_id=10194915&Row=3 | A preliminary survey of selected structures on the Hanford Site for Townsend`s big-wed bat (Plecotus townsendii) was conducted by Pacific Northwest Laboratory (PNL) in August and September 1993. The project involved identifying structures that contained bats and determining whether Townsend`s big-eared bats were among those present. The survey focused on deactivated reactors, other buildings in the 100D and 100K Areas, canyon buildings in the 200 Areas, and other structures reported to contain bats. | D | G,E | | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNL-9437<br>UC-403 | | 100 AREA | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 1993 DEC | PD THORNE<br>PNL | THREE DIMENSIONAL CONCEPTUAL MODEL FOR HANFORD SITE UNCONFINED AQUIFER SYSTEM FY 1993 STATUS REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199061223/D199061223_19306_116.pdf | The Ground-Water Surveillance Project is responsible for monitoring the movement of chemical and radioactive contaminants in ground water beneath the Hanford Site. To support this effort, a three-dimensional conceptual model of ground-water flow in the unconfined aquifer system is being developed. The conceptual model will be the basis for three-dimensional numerical modeling and will enable more accurate predictions of contaminant transport under changing site conditions. | D,P | G,Z | Y,S,X | A,M | NO | NO |
| PNL-9809 to PNNL-14616 | | 100 Areas: B,D,F, H, B K | 100 Areas: B,D,F, H, B K | 1992 APR | M. D. Campbell | Monitoring Groundwater and River Interaction Along the Hanford Reach of the Columbia River | http://www.osti.gov/bridge/purl.cover.jsp?purl=/10142634-HYEXLk/native/ | As an adjunct to efficient Hanford Site characterization and remediation of groundwater contamination, an automatic monitor network has been used to measure Columbia River and adjacent groundwater levels in several areas of the Hanford Site since 1991. Water levels, temperatures, and electrical conductivity measured by the automatic monitor network provided an initial database with which to calibrate models and from which to infer ground and river water interactions for site characterization and remediation activities. Measurements of the dynamic river/aquifer system have been simultaneous at 1-hr intervals, with a quality suitable for hydrologic modeling and for computer model calibration and testing. This report describes the equipment, procedures, and results from measurements done in 1993. | D,H,P | Z,T | S,X | A | No | NO |
| PNNL- 14031 | Rev 0 | 100-K | 100-KR-4 | 2002, September | Peterson, RE, FA Spane, K.B.Olsen M.D. Williams | Evaluation of Potential Sources for Tritium Detected in Gorundwater at Well 199-K-111A, 100-K Area | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/57033376/58772704/D9181192.pdf?nodeid=58778948&vernum=2 | The 100-K Fuel Storage Basins (K Basins) contain irradiated nucleear fuel from past operations at the N Reactor. This document updates an existing groundwater monitoring and assessment plan for the K- Basins to reflect current conditions and revises the monitoring strategy to reflect information needs. The goals and purpose associated with this updated plan are: 1.)Characterize groundwter conditions between the K Basins and the Columbia River-to provide periodic status of current conditions and the attenuation of plumes, 2.) Distinguish between groundwater contamination associated with K Basins and contamination from other past pracitice sources- to help guide operational and remedial action decisions, and 3.) Maintain a strategy for the potential expansion of monitoring capabilities - to respond to future basin- related issues. | | | | | | |
| PNNL-14033 | Rev 0 | 100-K | 100-KR-4 | 2002, September | Peterson, RE | Groundwater Monitoring and Assessment Plan for the 100-K Area Fuel Storage Basins | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/57033376/58772704/D9161758.pdf?nodeid=58779134&vernum=2 | The Spent Nuclear Fuels Project represents a challenging and wxpensive cleanup activity for the Hanford Site. This groundwater monitoring plan presents a strategy for (a) sampling and analysis, (b) data interpretation, and © reporting of conditions related to the subsurfaceenvironment in the vicinity of the KE and KW Fuel Storage Basins (K Basins) | | | | | | |
| PNL-SA-16118 | | HANFORD SITE | HANFORD SITE | 1994 JUNE to 2004 MAY | PNNL | HANFORD SITE CLIMATOLOGICAL DATA SUMMARY WITH HISTORICAL DATA (1993 - 2003) | RL - 551.69 | PRESENTS THE CLIMATOLOGICAL DATA SUMMARY AND ADDITIONAL INFORMATION FOR TEMPERATURE, WIND, PRECIPITATION, AND OTHER PARAMETERS. THIRTY MONITORING STATIONS ARE LOCATED WITHIN AND NEAR THE SITE, AND 100-K CONTAINS ONE OF THESE SITES. | D | E | | | NO | NO |
| PNL-SA-16118 | | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 1990 NOV | KR PRICE, WH RICKARD PNL | STRONTIUM-90 IN CANADA GOOSE EGGSHELLS AND REED CANARY GRASS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0040/D196029447/D196029447_3940_8.pdf | Strontium-90 released to the ground near the N Reactor at the Hanford Site enters the Columbia River through shoreline seeps. The Strontium-90 is then potentially available for uptake by plants and animals. The life history and foraging behavior of nesting Canada geese is such that female geese could ingest Strontium-90 while foraging on shoreline plants. Radiochemical analyses were performed on goose eggshells taken from an island, downstream from the N Reactor, then on Reed canary grass. | D | E | Y,X | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-1 1997 | Rev. 1 | 100 Areas: D, H, F, N, K, B,C | 100 Areas: D, H, F, N, K, B,C | 1999 SEP | M. J. Hartman<br>P. E. Dresel<br>D. R. Newcomer<br>E. C. Thornton | Integrated Monitoring Plan for the Hanford Groundwater Monitoring Project | http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=B5A1857D3A5799D3CA48EAC180EACA1B?purl=/12517-W20mD0/webviewable/ | Groundwater is monitored at the Hanford Site to fulfill a variety of state and federal regulations, including the Atomic Energy Act of 1954; the Resource Conservation and Recovery Act of 1976; theComprehensive Environmental Response, Compensation and Liability Act of 1980; and Washington Administrative Code. Separate monitoring plans are prepared for various requirements, but sampling is coordinated and data are shared among users to avoid duplication of effort. The U.S. Department of Energy manages these activities through the Hanford Groundwater Monitoring Project.<br><br>This document is an integrated monitoring plan for the groundwater project. It documents well and constituent lists for monitoring required by the Atomic Energy Act of 1954 and its implementing orders; includes other, established monitoring plans by reference; and appends a master well/constituent/ frequency matrix for the entire site. | D,H, P | G,Z,E,T | Y,SIR,P | A | Yes | NO |
| PNNL-11557-18 | | 100-K K Basin K-E K-W | 100-K K Basin K-E K-W | 1998 SEP | A. J. Schmidt<br>G. M. Mong<br>E. W. Hoppe<br>S. O. Slate<br>K. L. Silvers<br>B. M. Thornton | K Basin Sludge Conditioning Partitioning of PCBS in Dissolver Solution After Neutralization/Precipitation (Caustic Adjustment) Process Testing | http://www.osti.gov/bridge/purl.cover.jsp?purl=/2525-il6SQ9/webviewable/ | The purpose of the work described in this report was to gain a better understanding of how PCB congeners present in a simulated K Basin sludge dissolver solution will partition upon neutralization and precipitation (i.e., caustic adjustment). | D,H,P | | Y,S,X | A | No | No |
| PNNL-11557-19 | | 100-K K Basins | 100-K K Basins | 2001 SEP | Hartshorn, Donald C. ; Reidel, Stephen P. ; Rohay, Alan C. ; et.al. | Second and Third Quarter Hanford Seismic Report for Fiscal Year 2001 | http://www.osti.gov/bridge/purl.cover.jsp?purl=/965681-uUMeOk/ | This report describes the seismic activity on the Hanford Site during the 2nd and 3rd quarters of FY01. | D,H,P | G, | S | A | No | NO |
| PNNL-11989 | | 100-K | 100-K | 2001 NOV | D. C. Hartshorn<br>S. P. Reidel<br>A. C. Rohay<br>M. M. Valenta | Annual Hanford Seismic Report for Fiscal Year 2001 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=22&osti_id=965679&Row=22 | This report is the annual Hanford seismic activity report for fiscal year (FY) 2001. The report includes earthquake activity that occurred on the Hanford Site and vicinity that occurred between October 1, 2000 and September 30, 2001 and our geologic interpretation of the sources of the earthquakes. | D,H, | G,T | s | A | Yes | NO |
| PNNL-11998 | | 100-K | 100-KR-2 | 1998 JUL | GM MONG<br>PNNL | 100-K BASIN SLUDGE CONDITIONING PROCESS TESTING FATE OF PCB DURING 100-K BASIN SLUDGE DISSOLUTION IN NITRIC ACID AND WITH HYDROGEN PEROXIDE ADDITION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199091626/D199091626_19422_42.pdf | The work described in this report is part of the studies being performed to address the fate of polychlorinated biphenyls (PCBs) in K Basin sludge before the sludge can be transferred to the Tank Waste Remediation System (TWRS) double shell tanks. | D,P | | Y | A | NO | NO |
| PNNL-11998 | Rev. 1 | 100-K | 100-K | 1999 SEP | M. J. Hartman D. R. Newcomer<br>P. E. Dresel E. C. Thornton | Integrated Monitoring Plan for the Hanford Groundwater Monitoring Project | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2756668 | This document is an integrated monitoring plan for the groundwater project. It documents well and constituent lists for monitoring required by the Atomic Energy Act of 1954 and its implementing orders; includes other, established monitoring plans by reference; and appends a master well/constituent/ frequency matrix for the entire site. The objectives of monitoring fall into three general categories: plume and trend tracking, treatment (storage/disposal unit monitoring, and remediation performance monitoring. Criteria for selecting Atomic Energy Act of 1954 monitoring networks include locations of wells in relation to known plumes or contaminant sources, well depth and construction, historical data, proximity to the Columbia River, water supplies, or other areas of special interest, and well use for other programs. | D,H,P | Z,T | Y,S,X,P | A,M | Yes | NO |
| PNNL-12023 | | 100-K | 100-KR-2 | 1998 OCT | VG JOHNSON<br>PNNL | GROUNDWATER MONITORING FOR 100-K AREA FUEL STORAGE BASIN JULY 1996 THROUGH APRIL 1998 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D199091624/D199091624_19420_126.pdf | This report presents the results of groundwater monitoring and summarizes current interpretations of conditions influencing groundwater quality and flow in the 100-K Area. The interpretations build on previous work, and statistical evaluations of contaminant concentrations were performed for the period July 1996 through April 1998. No new basin leaks are indicated by data from this period. | D,H,P | G,Z,C | Y,S,X | A,M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-12023 | | K Basin | K Basin | 1998 JUL | G.M. Mong K. H. pool ‘ A. J. Schmidt K. L. Silvers , , E. w. Hoppe B. M. Thornton | K Basin Sludge Conditioning Process Testing<br><br>Fate of PCBs During K Basin Sludge Dissolution in Nitric Acid and with Hydrogen Peroxide Addition | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=32&osti_id=2526&Row=9 | The work described in this report is part of the studies being performed to address the fate of polychlorinated biphenyls (PCBs) in K Basin sludge before the sludge can be transferred to the Tank Waste Remediation System (TWRS) double shell tanks. One set of tests examined the effect of hydrogen peroxide on the disposition of PCBs in a simulated K Basin dissolver solution containing 0.5 M nitric acid/1 M Fe(NO{sub 3}){sub 3}. A second series of tests examined the disposition of PCBs in a much stronger ({approx}10 M) nitric acid solution, similar to that likely to be encountered in the dissolution of the sludge. | D,H,P | | Y | A | No | NO |
| PNNL-12086 | | 100-K | 100-K | 1999 JAN | VG Johnson ; CJ Chou ; MJ Hartman ; WD Webber | Groundwater Monitoring for the 100-K Area Fuel-Storage Basins: July 1996 Through April 1998 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=2667&Row=11 | This report presents the results of groundwater monitoring and summarizes current interpretations of conditions influencing groundwater quality and flow in the 100-K Area. The interpretations build on previous work, and statistic evaluations of contaminant concentrations were performed for the period July 1996 through April 1998. No new basin leaks are indicated by data from this period. | D,P | Z | T,Y,S | M | YES | NO |
| PNNL-1211O | | 100-K | 100-K | 1999 MAR | Hartman, M.J. | Hanford Site Groundwater Monitoring for Fiscal Year 1998 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=4737&Row=9 | This report presents the results of groundwater and vadose-zone monitoring and remediation for fiscal year (FY) 1998 on the Word Site, Washington. Soil-vapor extraction in the 200-West Area removed 777 kg of carbon tetrachloride in FY 1998, for a total of 75,490 kg removed since remediation began in 1992. Groundwater remediation in the 100 Areas continued to reduce the amount of strontium-90 (100-N) and chromium (100-K, D, and H) reaching the Columbia River. Contaminants will continue to move toward the southeast and north (through Gable Gap), but the areas with levels exceeding drinking water standards will diminish. | D,H,P | G,Z,E | Y,S,X,P | A/M | YES | NO |
| PNNL-13080 | | K Basin | K Basin | 1998 JUL | C. D. Carlson C. H. Delegard I.E. Burgeson A. J. Schmidt P.R. Bredt K. L. Silvers | K Basin Sludge Conditioning Testing<br><br>Nitric Acid Dissolution Testing of K East Canister Sludge | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=32&osti_id=5088&Row=10 | This report describes tests performed by Pacific Northwest National Laboratory (PNNL) for Numatec Hanford Corporation (NHC) as part of the overall activities for the development of the K Basin Sludge Treatment System. These tests were conducted to examine the dissolution behavior of a K East Basin canister sludge composite in nitric acid at the following concentrations: 2 M, 4 M, 6 M, 7.8 M and 10 M and temperatures of 25 C and boiling. Assuming that the sludge was 100% uranium metal, a 4X stoichiometric excess of nitric acid was used for all testing, except that conducted at 4 M. In the 4 M nitric acid dissolution test, 50% excess nitric acid was used resulting in a dissolver solution with a significantly higher solids loading. The boiling tests were conducted for 11 hr, the 25 C dissolution tests were conducted from 24 hr to 2 weeks. For the 25 C dissolution testing, the weight percent residual solids was determined, however, chemical and radiochemical analyses were not performed. | D,P | | Y | A | No | NO |
| PNNL-13116 | | 100-K | 100-K | 2000 MAR | M. J. Hartman L. F. Morasch W. D. Webber | HANFORD SITE GROUNDWATER MONITORING FOR FY 1999 [SECTION 1 OF 2] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2736610 | This report is part 1 of the results of groundwater and vadose zone monitoring and remediation for fiscal year 1999, on the U.S. Department of Energy's Hanford Site, Washington. Water-level monitoring was performed to evaluate groundwater flow directions, to track changes in water levels; and to relate such changes to evolving disposal practices. Measurements for site-wide maps were conducted in June in past years and are now measured in March to reflect conditions that are closer to average. Water levels over most of the Hanford Site continued to decline between June 1998 and March 1999. | D,H,P | G,Z,E,T | Y,S,X,P | A,M | Yes | Yes |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-13116 | | 100-K | 100_K | 2000 FEB | Ni J. Hartman | Hanford Site Groundwater Monitoring: Setting,.Sources and Methods | http://www5.hanford.gov/arpir/?content=findpage&AKey=D27600032 | Groundwater monitoring is conducted on the Hanford Site (Figure 1.1) to meet the requirements of the Resource Conservation and Recovery Act of 1976 (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act of I980 (CERCLA); U.S. Department of Energy (DOE) orders; and the Washington Administrative Code. Results of monitoring are published annually (e.g., PNNL-11989).<br><br>To reduce the redundancy of these annual reports, background information that does not change significantly from year to year has been extracted from the annual report and published in this companion volume.<br><br>This report includes a description of groundwater monitoring requirements, site hydrogeology, and waste sites that have affected groundwater quality or that require groundwater monitoring. Monitoring networks and methods for sampling, analysis, and interpretation are summarized. Vadose zone monitoring methods and statistical methods also are described. When ever necessary, updates to information contained in this document will be published in future groundwater annual reports. | D,H,P | G,Z,E,T | Y,S,X,P | A,M | Yes | NO |
| PNNL-13116; EW02J1080 | | 100-K | 100-K | 2000 MAR | M. J. Hartman<br>L. F. Morasch<br>W. D. Webber | HANFORD SITE GROUNDWATER MONITORING FOR FY 1999 [SECTION 2 OF 2] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D27369 78 | This report is part 2 of the results of groundwater and vadose zone monitoring and remediation for fiscal year 1999, on the U.S. Department of Energy's Hanford Site, Washington. Water-level monitoring was performed to evaluate groundwater flow directions, to track changes in water levels; and to relate such changes to evolving disposal practices. Measurements for site-wide maps were conducted in June in past years and are now measured in March to reflect conditions that are closer to average. Water levels over most of the Hanford Site | D,H,P | G,Z,E,T | Y,S,X,P | A,M | Yes | Yes |
| PNNL13217 | | 100-K | 100-K | 2000 May | MJ Hartman ; LF Morasch ; WD Webber | Hanford Site Groundwater Monitoring for Fiscal Year 1999 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=11&osti_id=754685&Row=11 | This report presents the results of groundwater and vadose zone monitoring and remediation for fiscal year 1999 on the US. Department of Energy's Hanford Site, Washington. Water-level monitoring was performed to evaluate groundwater flow directions, to track changes in water levels, and to relate such changes to evolving disposal practices | D,P | G,Z,C,E | Y,S,X,P | A/M | NO | NO |
| PNNL-13217 | | 100-K 100-KE | 100-K 100-KE | 2000 JUN | K. B. Olsen<br>P. E. Dresel<br>G. W. Patton<br>J. C. Evans<br>R. Poreda(a) | Measurement of Tritium in Gas Phase Soil<br>Moisture and Helium-3 in Soil Gas at the<br>Hanford Townsite and 100 K Area | http://www.osti.gov/bridge/purl.cover.jsp?purl=/757601-1Gg9aT/webviewable/ | This report was a study of soil gas samples for helium-3 measurements that were collected at two locations on the Hanford Site. No detectable tritium (<240 pCi/L) was found in the soil moisture samples from either the Hanford Townsite or the 100 K Area sampling points. The analysis of the data from the 100 K Area suggests that a major tritium plume does not lie within that study area and it was recommended that the study be continued by placing additional soil gas sampling points along the perimeter road to the west and to the south of the initial study area. | D,H | G,Z | Y,S,X,P | A | No | No |
| PNNL-13788-SUM | | 100-K | 100-K | 2001 OCT | Hartman, Mary J. ; Dresel, P Evan ; Lindberg, Jonathan W. ; et.al. | FY 2002 Integrated Monitoring Plan for the Hanford Groundwater Monitoring Project | http://www.pnl.gov/main/publications/external/technical_reports/pnnl-13698.pdf | This document is an integrated monitoring plan for the groundwater project and contains: well and constituent lists for monitoring required by the Atomic Energy Act of 1954 and its implementing orders ("surveillance monitoring"); other, established monitoring plans by reference; and a master well/ constituent/frequency matrix for the entire Hanford Site. | D,H | Z,E,T | S,X,P | A | NO | NO |
| PNNL-13854 | | HANFORD SITE | HANFORD SITE | 2002 MAR | LF MORASCH,<br>MJ HARTMAN,<br>WD WEBBER<br>PNNL | SUMMARY OF HANFORD SITE GROUNDWATER MONITORING FY 2001 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0017/D9161420/D9161420_31913_37.pdf | This booklet summarizes a more detailed report, Hanford Site Groundwater Monitoring for Fiscal Year 2001. That report is prepared annually to present the results of groundwater and vadose zone monitoring and remediation on Hanford Site. This summary booklet is designed to briefly (1) describe the highlights for fiscal year 2001; (2) identify emerging issues in groundwater monitoring; (3) discuss groundwater flow and movement; and (4) provide an overview of current contamination in the groundwater and vadose zone. | D,P | G,Z | Y,S,X | A,M | YES | NO |
| PNNL-13910-SUM | | 100-K | 100-K | 2002 June | Schmidt, Andrew J. ; Elmore, Monte R. | Settling Test Using Simulants to Evaluate Uranium Metal Distribution in K Basin Sludge | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-13854.pdf | This report presents the results of a large-scale settling test conducted with a K Basin sludge stimulant that included metallic tungsten/cobalt (W/Co) fragments (density {approx}14.5 g/cm3) as a surrogate for uranium metal (density 19 g/cm3). The objective of the testing was to gain insight into how uranium metal is likely to be distributed within the K Basin sludge loaded into the large-diameter containers (LDCs) that will be used for storage at T Plant. | D,P | | | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-14031 ????? | | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2002 SEP | GP OCONNOR, RW HANF, TM POSTON | SUMMARY OF HANFORD SITE ENVIRONMENTAL REPORT FOR CY 2001 | http://www5.hanford.gov/arpir/?content=detail&AKey=D3049241 | This summary booklet is designed to briefly 1) describe the Hanford Site and its mission; 2) describe environmental programs at the Hanford Site; 3) discuss estimated radionuclide exposures to the public from 2001 Hanford Site activities; 4) summarize the status of compliance with the site's environmental regulations; and 5) present information on environmental monitoring and surveillance and groundwater protection and monitoring. Readers interested in more detailed information can consult the 2001 report or the technical documents cited and listed in that report. | D,H,P | Z,C,E, T | Y,S,X, P | A,M | Yes | Yes |
| PNNL-14031 | | 100-K | 199-K-111A | 2002 SEPT | Peterson, Robert E. ; Spane, Frank A. ; Olsen, Khris B. ; et.al. | Evaluation of Potential Sources for Tritium Detected in Groundwater at Well 199-K-111A, 100-K Area | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-14031.pdf | Tritium concentrations in groundwater at well 199-K-111A near the northwest corner of the 100-K Burial Ground have been rising rapidly since fall 2000. Several investigations were undertaken during fall 2001 provide more information on a possible source for tritium observed in groundwater at well 199-K-111A. These included analyzing groundwater flow direction and gradient, Analyzing soil gas collected from previously installed sample tubes and modeling the buildup of a groundwater mound beneath the interim remedial action injection site. | D,H,P | G | Y,X,P | A | YES | YES |
| PNNL-14033 | | 100-K | 100-KR-4 | 2002 SEPT | FA SPANE, KB OLSEN, MD WILLIAMS, RE PETERSON PNNL | EVALUATION OF POTENTIAL SOURCES FOR TRITIUM DETECTED IN GROUNDWATER AT WELL 199-K-111A 100-K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9181192/D9181192_31959_73.pdf | Historical water table elevation data for the period 1994 to present were evaluated using trend-surface analysis to determine the orientation of the hydraulic gradient and its steepness. New elevation data were collected hourly during the period August 31 to September 17, 2001 and evaluated also. For the area between the KB reactor complex and the river, the trend-surface analysis results confirmed that well 199-K-111A does not lie in the direct downgradient flow path, as defined by hydraulic gradients, from known tritium sources. | D,H,P | G,Z,T | Y,S,X,P | A,M | NO | NO |
| PNNL-14033 | | 100-K | 100-KR-2 | 2002 SEPT | RE PETERSON PNNL | GROUNDWATER MONITORING AND ASSESSMENT PLAN FOR 100-K AREA FUEL STORAGE BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9161758/D9161758_31914_96.pdf | This document updates an existing groundwater monitoring and assessment plan for the KBasins to reflect current conditions and revises the monitoring strategy to reflect changing information needs. The goals and purpose associated with this updated plan are: Characterize groundwater conditions between the K Basins and the Columbia River. Distinguish between groundwater contamination associated with K Basins and contamination from other past-practices sources-to help guide operational and remedial action decisions. Maintain a strategy for the potential expansion of monitoring capabilities—to respond to future basinrelated issues. | D,H,P | G.Z.C | Y,S,X,P | | NO | YES |
| PNNL-14111 | | 100-KE, 100KW | 100-KE, 100KW | 2002 SEPT | R. E. Peterson | Groundwater Monitoring and Assessment Plan for the 100-K Area Fuel Storage Basin | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-14033.pdf | This document updates an existing groundwater monitoring and assessment plan for the K Basins to reflect current conditions and revises the monitoring strategy to reflect changing information needs. The goals and purpose associated with this updated plan are: Characterize groundwater conditions between the K Basins and the Columbia River—to provide a periodic status of current conditions and the attenuation of plumes. Distinguish between groundwater contamination associated with K Basins and contamination from Other past-practices sources—to help guide operational and remedial action decisions. Maintain a strategy for the potential expansion of monitoring capabilities—to respond to future basin related issues. | D,H,P | G,Z,E,T | S,X,P,A | A | YES | NO |
| PNNL-14187-SUM | | HANFORD SITE | HANFORD SITE | 2002 NOV | MJ HARTMAN PNNL | FY 2003 INTEGRATED MONITORING PLAN FOR HANFORD GROUNDWATER MONITORING PROJECT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0018/D9192290/D9192290_32009_116.pdf | This document is an integrated monitoring plan for the groundwater project. It documents well and constituent lists for monitoring required by the Atomic Energy Act of 1954 and its implementing orders, includes other established monitoring plans by reference, and appends a master well/constituent/frequency matrix for the entire site. The objectives of monitoring fall into three general categories: plume and trend tracking, treatment/storage/disposal unit monitoring, and remediation performance monitoring. Criteria for selecting wells, constituents, and sampling frequencies for the latter two categories are documented in site-specific plans. | D,P | G,Z,T | Y,X,P | A,M | NO | NO |
| PNNL-14295-SUM | | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 100-BC-5 100-FR-3 100-HR-3 100-KR-4 100-NR-2 | 2003 MAR | LF MORASCH, MJ HARTMAN, WD WEBBER | SUMMARY OF HANFORD SITE GROUNDWATER MONITORING FOR FY 2002 | http://www5.hanford.gov/arpir/?content=detail&AKey=D2984289 | This report is written to meet the requirements in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Atomic Energy Act of 1954, and Washington Administrative Code. The Hanford Groundwater Monitoring Project sampled 650 wells during fiscal year 2002. Iodine-129, nitrate, and tritium are the most widespread contaminants. | D,H,P | T | Y,S,X,P | A,M | Yes | Yes |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-14444 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2003 SEP | GP OCONNOR,<br>LF MORASCH,<br>RW HANF,<br>TM POSTON | SUMMARY OF HANFORD SITE ENVIRONMENTAL REPORT FOR CY 2002 | http://www5.hanford.gov/arpir/?content=detail&AKey=D2984227 | This booklet summarizes the Hanford Site Environmental Report for Calendar Year 2002. This booklet briefly describes (1) the Hanford Site and its mission; (2) environmental programs at the Hanford Site; (3) estimated radionuclide exposures to the public from 2002 Hanford Site activities; (4) the status of the site's compliance with environmental regulations; and (5) information on environmental monitoring and surveillance programs and activities. Readers interested in more detailed information can consult the 2002 report or the technical documents cited and listed in that report. | D,H,P | G,Z,C,E | Y,S,X,P | A,M | Yes | Yes |
| PNNL-14548 | | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 100-BC-5<br>100-FR-3<br>100-HR-3<br>100-KR-4<br>100-NR-2 | 2003 OCT | M. J. Plattman<br>R. E. Peterson | Aquifer Sampling Tube Results for Fiscal Year 2003 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2539322 | This report presents and discusses results of the fiscal year 2003 sampling event associated with aquifer tubes along the Columbia River in the northern Hanford Site. Aquifer tube data help define the extent of groundwater contamination near the Columbia River, determine vertical variations in containinationm, monitor the performance of interim remedial actions near the river, and support impact studies. | D,H,P | T | Y,S,X,P | A,M | Yes | Yes |
| PNNL-14725 | Rev 0 | HANFORD SITE | HANFORD SITE | 2004 Jul | Last, George V. ; Nichols, William E. ; Kincaid, Charles T. | Geographic and Operational Site Parameters List (GOSPL) for the 2004 Composite Analysis | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-14725Rev0.pdf | This report briefly describes each of the key data fields, including the source(s) of data, and provides the resulting inputs to be used for the 2004 Composite Analysis. A master spreadsheet termed the Geographic and Operational Site Parameters List (GOSPL) was assembled to facilitate the generation of keyword input files containing general information on each waste site, its operational/disposal history, and its environmental settings (past, current, and future). | D,H,P | E | Y,S,X | A/M | NO | NO |
| PNNL-14725 | | 100-K | 100-K | 2004 MAR | Hartman, Mary J. ; Morasch, Launa F. ; Webber, William D. | Hanford Site Groundwater Monitoring for Fiscal Year 2003 | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-14548.pdf | This report presents the results of groundwater and vadose zone monitoring and remediation for fiscal year 2003 (October 2002 through September 2003) on the U.S. Department of Energy's Hanford Site, Washington. The largest portions of these plumes are migrating from the central Hanford Site to the southeast, toward the Columbia River. The purpose of this monitoring is to define and track plumes and to monitor the effectiveness of interim remedial actions. Interim groundwater remediation in the 100 Areas continued with the goal of reducing the amount of chromium (100-K, 100-D, and 100-H) and strontium-90 (100-N) reaching the Columbia River. | D,P | G,Z,E | Y,X,P | A,M | NO | NO |
| PNNL-15176 | Rev. 1 | HANFORD SITE | HANFORD SITE | 2006 Jun | Last, George V. ; Nichols, William E. ; Kincaid, Charles T. | Geographic and Operational Site Parameters List (GOSPL) for Hanford Assessments | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-14725rev1.pdf | This data package was originally prepared to support a 2004 composite analysis (CA) of low-level waste disposal at the Hanford Site. The Technical Scope and Approach for the 2004 Composite Analysis of Low Level Waste Disposal at the Hanford Site (Kincaid et. al. 2004) identified the requirements for that analysis and served as the basis for initial preparation of this data package | D,H,P | E | Y,S,X | A/M | NO | NO |
| PNNL-15670 | | 100 Areas: D, H, F, N, K, B,C, KR | 100 Areas: D, H, F, N, K, B,C, KR | 2005 JUN | J. T. Rieger<br>M. J. Hartman | Fiscal Year 2005 Integrated Monitoring Plan for the Hanford Groundwater Performance Assessment Project | http://www.osti.gov/bridge/purl.cover.jsp?purl=/15020695-65UFEN/ | This report is about how groundwater is monitored in hundreds of wells at the Hanford Site to fulfill a variety of requirements. Separate monitoring plans are prepared for various purposes, but sampling is coordinated and data are shared among users. DOE manages these activities through the Hanford Groundwater Performance Assessment Project, which is the responsibility of Pacific Northwest National Laboratory. The groundwater project integrates monitoring for various objectives into a single sampling schedule to avoid redundancy of effort and to improve efficiency of sample collection.This report documents the purposes and objectives of groundwater monitoring at the DOE Hanford Site in southeastern Washington State. | D,P | Z,T | Y,S, P | A,M | No | NO |
| PNNL-16760 | | 100-K | 100-K | 2006 FEB | Hartman, Mary J. ; Morasch, Launa F. ; Webber, William D. | Hanford Site Groundwater Monitoring for Fiscal Year 2005 | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-15670.pdf | This report is one of the major products and deliverables of the Groundwater Remediation and Closure Assessment Projects detailed work plan for FY 2006, and reflects the requirements of The Groundwater Performance Assessment Project Quality Assurance Plan (PNNL-15014). This report presents the results of groundwater and vadose zone monitoring and remediation for fiscal year 2005 on the U.S. Department of Energy's Hanford Site, Washington. Remediation and associated monitoring continued at a soil-vapor extraction system in the 200 West Area, which removes gaseous carbon tetrachloride from the vadose zone. DOE uses geophysical methods to monitor potential movement of contamination beneath former waste sites. | D,H,P | G,Z,E | Y,S,X,P | A/M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PNNL-17674 | | 100 Areas | 100 Areas - B, C, D, DR, F, H, K | 2008 JULY | Dresel, PE, NP Qafoku, JP McKinley, JS Fruchter, CC Ainsworth, C. Liu, ES Ilton, JL Phillips | Geochemical Characterization of Chromated Contaminztion in the 100 Area Vadose Zone at the Hanford Site. (Part 1) | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-17865.pdf | The major objectives of this study were to 1.) determine the leaching characteristics of hexavalent chromium [Cr(VI)] from contaminated sediments collected from 100 Area Spill sites.; 2) elucidate possible Cr(VI) mineral and/or chemical associations tha may be responsible for Cr(VI) retention in the Hanford Site 100 Areas through the use of macroscopic leaching studies, and microscale characterization of contaminated sediments: and 3) provide information to construct a conceptual model of Cr(VI) geochemistry in the Hanford 100 Areas vadose zone that can be used for developing options for environmental remediation. | | | | | | |
| PNNL--17865 | | 100 Areas | | 2011 JAN | Qafoku, NP; PE Dresel, JP McKinley, ES Ilton, W UM, CT Resch,RK Kukkadapu, SW Petersen | Geochemical Characterization of Chromate Contamination in the 100 Area Vadose Zone at the Hanford Site, Part 2 | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-17865.pdf | Successful groundwter protection from Cr contamination depends on an understanding of the currently unknown or not well understood coupled chemical reactions and hydrogeologic processes that control of affect contaminant Cr(VI) interactions with the sediments during downward movement through the physically and mineralogically heterogeneous vadose zone. Contaminant Cr(VI) may sorb to mineral surfaces, precipitate in mineral phases with varying stability, and may also get reduced to Cr(III), a reaction that may lead to the formation of pure Cr(III) phases or Fe9III)Cr(III) solid solutions. An estimation of the extent and rates of these reactions and processes is required to achieve a fundamental understanding of Cr vadose zone geochemistry. This may help in accelerating the 100 Area Columbia River Corridor cleanup by developing scientifically based remedial actions. | | | | | | |
| PNNL-19283 | | 100 AREAS | 100 AREAS | 2007 SEPT | Dresel, P. Evan ; Truex, Michael J. ; Sweeney, Mark D. | Review of Techniques to Characterize the Distribution of Chromate Contamination in the Vadose Zone of the 100 Areas at the Hanford Site | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-16760.pdf | The purpose of this report is to identify and evaluate the state-of-the-art techniques for characterization of chromate contamination in the vadose zone of the 100 Areas at the Hanford Site. Characterization for the distribution of chromium concentration in the vadose zone is needed to assess potential sources for chromate contamination plumes in groundwater at the 100-D, 100-K, and 100-B/C Areas. | P | | Y,S,P | A | YES | NO |
| PNNL-19513 | | 100-K K basins | 100-K K Basins | 2010 MAR | Rohay, Alan C. ; Sweeney, Mark D. ; Hartshorn, Donald C. ; et.al. | First Quarter Hanford Seismic Report for Fiscal Year 2010 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=39&osti_id=982570&Row=17 | This report contains data compiled from the Hanford Seismic Assessment Program (HSAP) a collection of high quality raw and processed seismic data from the Hanford Seismic Network for the U.S. Department of Energy and its contractors. The HSAP is responsible for locating and identifying sources of seismic activity and monitoring changes in the historical pattern of seismic activity at the Hanford Site. The data are compiled, archived, and published for use by the Hanford Site for waste management, natural phenomena hazards | D,H,P | G, T | S | A | Yes | NO |
| PNNL-7346 to PNNL-19445 | | 100-K KBasins | 100-K K Basins | 2010 JUN | Rohay, Alan C. ; Sweeney, Mark D. ; Hartshorn, Donald C. ; et.al. | Second Quarter Hanford Seismic Report for Fiscal Year 2010 | http://www.pnl.gov/main/publications/external/technical_reports/PNNL-19513.pdf | The Hanford Seismic Assessment Program (HSAP) provides an uninterrupted collection of high-quality raw and processed seismic data from the Hanford Seismic Network for the U.S. Department of Energy and its contractors. The HSAP is responsible for locating and identifying sources of seismic activity and monitoring changes in the historical pattern of seismic activity at the Hanford Site. The data are compiled, archived, and published for use by the Hanford Site for waste management, natural phenomena hazards assessments, and | D,H, P | G,T | S | A | Yes | NO |
| PRC-STP-00065 | REV 0 | 100-K | K BASINS | 2009 OCT | JO HONEYMAN, PS SCHAUS, CHPRC | DECISION PLAN ALTERNATIVES ANALYSIS AND TECHNOLOGY SELECTION FOR TREATMENT AND PACKAGING OF K BASIN SLUDGE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0910130514/[0910130514].PDF | These are the alternatives analysis decision plan for STP - Phase 2 documents CHPRC's proposed approach for identifying and evaluating the technologies and processes for treating and packaging K Basin sludge, and for selecting and implementing the integrated set of preferred technologies that optimally meet the requirements for disposal of these RH-TRU wastes. | P | | Y | M | NO | YES |
| RHO-BWI-ST-5 | | | | 1979 October | Gephart, RE, RC Arnett, RG baca, LS Leonhart, FS Spane, Jr. | Hydrologic Studies within the Columbia Plateau, Washingon: An Integration of Current Knowledge | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/57033376/58612982/D196007122.pdf?nodeid=58610393&vernum=2 | The Basalt Waste Isolation Project (BWIP) is chartered to evaluate the feasibility of storing radioactive waste wihtin the Columbia Rover basalt. Hydrologic studies are one of the principal research activities within the BWIP, The objective of these studies is to provide a clear evaluation of the hydrologic systems present within the Columbi River basalt significant to the possible siting of a repository. This report summarizes the data obtained and interpretations made to data regarding the hydrology of the Pasco Basin. | | | | | | |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD-EN-AP-153 | REV 1 | 100-K | 100-KR-2 100-KR-4 | 1994 MAY | BA WILLIAMS WHC | INSTALLLATION OF GROUNDWATER MONITORING WELLS IN SUPPORT OF 100-K AREA FUEL STORAGE BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196082330/D196082330_7546_84.pdf | This revised well installation plan describes a program to enhance groundwater monitoring capabilities around the 100-K Area Fuel Storage Basins. The initial plan provided background information on groundwater monitoring in the 100-K Area and described the installation of three new wellsat the K-West Basin. These wells provide samplinq access to Groundwater at the water table. The installation of three additional new wells near the K-East Basin are being added to the plan by this revision. Other minor changes have been made to the plan to shift its focus from K-West Basin to both K-West and K-East Basins. | D,P | G,Z,T | | A | NO | NO |
| SD-EN-AP-174 | REV 0 | 100-K | 100-KR-2 | 1995 SEPT | VG JOHNSON WHC | Groundwater Monitoring and Assessment Plan for the 100-K Area Fuel Storage Basins | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196004449/D196004449_2162.pdf | The primary purpose of this plan is to ensure compliance with Department of Energy groundwater protection and monitoring requirements for nuclear fuel and waste storage facilities. This plan describes the portion of the environmental monitoring program whose goals are to monitor the influence of current operations at the KE and KW Fuel Storage Basins on groundwater quality and to assess its environmental and public health significance. | D,P | G,Z,T | Y,S,X,P | A,M | NO | YES |
| SD-EN-DP-090 | REV 0 | 100-K | 100-KR-2 | 1994 DEC | WHC | BOREHOLE DATA PACKAGE FOR 100-K AREA GROUNDWATER WELLS CY 1994 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/D196047730/D196047730_58630573_76863_530.pdf | This data package is a compilation of data and information on well drilling, construction, development, and borehole hydrogeologic characterization. Copies of forms, notes, and diagrams completed in the field comprise the bulk of this document. Few interpretations are included. Major stratigraphic units were differentiated by the authors based on the geologic and geophysical logs, X-ray diffraction analysis, and lithologic samples. | D | G,Z | | | NO | NO |
| SD-EN-RA-009 | REV 0 | 100-K | 100-KR-1 | 1994 AUG | NM NAIKNIMBALKER WHC | QUALITATIVE RISK ASSESSMENT FOR 100-KR-1 SOURCE OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/D196071676/D196071676_58636145_76981_192.pdf | The purpose of the QRA at the 100-KR-1 operable unit is to focus on a predefined set of human and environmental exposure scenarios in order to provide sufficient information to assist the Tri-Party signatories in making defensible decisions on the necessity of IRMs. The QRA is conducted using the HSBRAM (DOE-RL 1993a) as guidance and consists of: An evaluation of the data sources and/or process information, identification of maximum constituent concentrations, where data is available, a human health risk evaluation, and an ecological risk evaluation. Key factors that contribute to uncertainty throughout the risk assessment process are also identified. | D,H,P | E | Y,S,X | A, | YES | NO |
| SD-EN-RA-010 | REV 0 | 100-K | 100-KR-4 | 1994 JUN | WHC | QUALITATIVE RISK ASSESSMENT FOR 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196075617/D196075617_58635902_77008_92.pdf | This report provides the qualitative risk assessment (QRA) for the 100-KR-4 groundwater Operable Unit. The extent of the groundwater beneath the 100-K Area is defined in the Remedial Investigation/Feasibility Study Work Plan for the 100-KR-4 Operable Unit 9DOE-RL 1992a). The QRA is an evaluation of risk using a limited amount of data and a predefined set of human and environmental exposure scenarios and is not intended to replace or be a substitute for a baseline risk assessment. | D,H,P | Z,E | Y,X | A | YES | NO |
| SD-EN-SAD-002 | REV 0 | 100 AREA | 100 AREA | 1991 SEPT | WE TAYLOR WHC | 100 AREA LOW HAZARD CHARACTERIZATION ACTIVITIES SAFETY ASSESSMENT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196078231/D196078231_7271_34.pdf | The purpose of the characterization activities described and analyzed here are to confirm or further define the contaminants present in the soils beneath selected waste sites in the 100 Areas. This safety assessment documents the analysis of hazards, leading to the conclusion that the activity does not present an unacceptable hazard to the three receptor groups of concern: the facility worker, the onsite person located 330 ft (100 m) from the activity, or the offsite individual. | D,H,P | G,Z,C,T | Y,S,X | A,M | YES | NO |
| SD-EN-SAD-027 | REV 0 | 100 AREA | 100-BC-1 100-FR-1 100-KR-1 | 1994 APR | JA LOCKLAIR WHC | SAFETY ASSESSMENT FOR DECONTAMINATION AND DISMANTLEMENT OF 107-C 107-KE 107-KW AND 107-F RETENTION BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196088998/D196088998_8273_64.pdf | This document provides a safety assessment of potential hazards associated with the decontamination and dismantlement of the 107-C, 107-KE, 107-KW, and 107-F retention basins. The basins store approximately 38 million L (10 million gal) of cooling water discharged from the Hanford Site reactors during operation. Large volumes of water, contaminated with radioactive nuclides and chemicals, were stored in the basins before discharge to the Columbia River or cribs. Discharge of this water stopped when the reactors shut down. The metal structures have since deteriorated and the migration of contaminants has been detected. | D,P | G,Z,C | Y,S,X | A | YES | NO |
| SD-EN-TI-006 | REV 0 | 100 AREA | 100 AREAS | 1992 MAR | RE PETERSON WHC | HYDROLOGIC AND GEOLOGIC DATA AVAILABLE FOR REGION NORTH OF GABLE MOUNTAIN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196090833/D196090833_8504_136.pdf | This data compilation report contains an inventory of readily available information on existing-groundwater wells, hydrology, and geology that can be used by RI/FS investigators. It is intended as a reference document that describes the available data, when data were collected, and how the data can be accessed. It has been designed as a supplement to other reports that evaluate existing information relative to past-practices objectives. | D | G,Z,T | | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD-EN-TI-011 | | 100 AREA | 100 AREAS | 1992 MAR | KA LINDSEY WHC | GEOLOGY OF NORTHERN PART OF HANFORD SITE OUTLINE OF DATA SOURCES AND GEOLOGIC SETTING OF 100 AREAS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196090817/D196090817_8499_32.pdf | This report outlines the types of geologic data for the Hanford Site north of the Gable Mountain anticline and where this data can be obtained. Based on the available data, preliminary geologic interpretations will be presented. These interpretations will be divided into four site specific sections: (1) 100-BC and 100-K, (2) 100-N and 100-D, (2) 100-H, and (4) 100-F. This report includes a brief discussion of regional geology in order to put the study area in its geologic context. | D | G,Z,T | | A | NO | NO |
| SD-EN-TI-056 | REV 0 | 100-K | 100-KR-4 | 1992 NOV | JM AYRES WHC | 100-KR-4 COLUMBIA RIVER SHORELINE RADIOLOGICAL SURVEYS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196116798/D196116798_11342_25.pdf | This report summarizes and documents the results of the radiological surveys conducted over the Columbia River shoreline area of the 100-KR-4 OU. In addition, this report explains the survey methodology using the Ultrasonic Ranging and Data System (USRADS) and the manual survey methodology used for a subarea of the shoreline area surveyed. The 100-KR-4 radiological survey field task consisted of two activities: (1) characterization of the operable unit-specific background conditions and (2) the radiological survey of the operable unit shoreline surface area. | D | G,Z | Y | A | NO | NO |
| SD-EN-TI-095 | REV 0 | 100-K | 100-KR-1 | 1993 JAN | KA BERGSTROM, TH MITCHELL WHC | GROUND PENETRATING RADAR INVESTIGATION FOR PROPOSED BOREHOLE 116-KW-3A 100-K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196120508/D196120508_11772_10.pdf | The objective of the survey was to locate subsurface manmade obstructions that may affect drilling of proposed borehole, 1 16-KW-3A. The proposed location is in a Radiological Controlled Area (RCA) designated corridor within a Surface Contaminated Area (SCA). Based upon the results of the survey, possible drill sites within the zone with the least likelihood of encountering identified obstructions will be recommended. | D | | | A | NO | NO |
| SD-EN-TI-204 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1993 JUN | JW LINDBERG WHC | GEOLOGY OF 100-K AREA SOUTH-CENTRAL WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0037/D196129512/D196129512_12573_33.pdf | The purpose of this report is to discuss the geologic setting of the 100-K Area and vicinity. This discussion is based on data acquired during recent drilling activities, data from older projects and boreholes from the area, and analysis of analogous geologic units from outcrops and coreholes located elsewhere in the region. The report is divided into two parts: (1) a brief review of the regional setting and (2) a detailed discussion of 100-K Area geology. | D | G,Z,T | | A | NO | NO |
| SD-EN-TI-204 | REV 0 | 100 AREA | 100-B/C 100-K 100-N 100-D 100-H 100-F | 1994 SEPT | KA BERGSTROM WHC | GROUND PENETRATING RADAR INVESTIGATION CONDUCTED IN 100 AREAS HANFORD SITES FY 1992 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196061851/D196061851_6008_82.pdf | During Fiscal Year 1992, the Geophysics Group conducted forty-five Ground-Penetrating Radar ( GPR) surveys in the 100 Areas. Objectives for the investigations varied, from locating cribs, trenches and septic systems to helping site boreholes. The results of each investigation were delivered to clients in the form of a map that summarized the interpretation of a given site. No formal reports were prepared. | D | | | | NO | NO |
| SD-EN-TI-216 | REV | 100 AREA 200 AREA | 100 AREA 200 AREA | 1994 JAN | JA STEGEN WHC | VEGETATION COMMUNITIES ASSOCIATED WITH 100 AREA AND 200 AREA FACILITIES ON HANFORD SITE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196101081/D196101081_9393_66.pdf | This study was conducted to determine the plant communities and estimate vegetation cover in and directly adjacent to the 100 and 200 Areas, primarily in relation to waste sites, as part of a comprehensive ecological study for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) characterization of the 100 and 200 Areas. | D | E | | A | NO | NO |
| SD-EN-TI-228 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1994 JUL | KH BERGSMAN WHC | GEOPHYSICAL SURVEY FOR PROPOSED BOREHOLE 199-K-108A 100-K AREA | http://www5.hanford.gov/arpir/?content=detail&AKey=D196074911 | The objective of the survey was to locate subsurface obstructions that may affect the drilling of proposed borehole, 199-K-108A, about 75 ft southeast of the 105 KW Building, 100-K Area. Based upon the results of the survey, possible drill sites within the zone, with the least likelihood of encountering identified obstructions, were identified. | D | | | A | NO | NO |
| SD-EN-TI-230 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1994 JUL | TH MITCHELL WHC | GEOPHYSICAL SURVEY FOR PROPOSED BOREHOLE 199-K-106A 100-K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196074905/D196074905_7108_8.pdf | The objective of the survey was to locate subsurface obstructions that may affect the drilling of proposed borehole, 199-K-106A, about 50 ft east of the 1714 KW Building, 100-K Area. Based upon the results of the survey, possible drill sites within the zone, with the least likelihood of encountering identified obstructions, were identified. | D | | | A | NO | NO |
| SD-EN-TI-239 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1994 APR | WHC | 100-K AREA TECHNICAL BASELINE REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0047/D196084907/D196084907_58640418_77075_272.pdf | It provides a technical baseline of waste sites located at the 100-K Area. The report is based on an environmental investigation undertaken by the Westinghouse Hanford Company (WHC) History Office in support of the Environmental Restoration Engineering Function and on review and evaluation of numerous Hanford Site current and historical reports, drawings, and photographs, supplemented by site inspections and employee interviews. | D,H,P | G,E | Y,S,X | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD-EN-TI-278 | REV 0 | 100 AREA | 100-B-7<br>100-B-8<br>100-C-4<br>100-D/DR<br>100-F<br>100-H<br>100-K<br>100-N | 1994 JUL | PJ VALCICH<br>WHC | COLUMBIA RIVER EFFLUENT PIPELINE SURVEY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196074913/D196074913_7111_25.pdf | This report presents the results of a comprehensive marine geophysical survey conducted in the Columbia River near the Hanford Reservation. The purpose of this investigation was to map the location and depth of burial of 14 effluent pipelines that extend into the Columbia River. There is concern that some of the pipes may be uncovered which may create a hazard to navigation in this part of the river. The survey was conducted from April 11th to April 17th, 1994 by Colder Associates, Seattle, Washington, under the direction of the Westinghouse Hanford Company, Richland, Washington. | D | G,Z | | A | NO | NO |
| SD-EN-TI-280 | REV 0 | 100-K | 100-KR-2 | 1994 AUG | RE PETERSON<br>WHC | GROUNDWATER MONITORING RESULTS FOR 100-K AREA FUEL STORAGE BASINS JANUARY 1 TO MARCH 31 1994 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D197183578/D197183578_15700_50.pdf | These following sections describe the current sampling and analysis schedule; recent water table elevation data; and recent chemical/radiological analysis results. The data presented are first quarter results for 1994. | D,P | Z | Y,S,X,P | A | NO | NO |
| SD-EN-TI-280 | REV 2 | 100-K | 100-KR-2 | 1995 NOV | SD EVELO,<br>VG JOHNSON<br>WHC | GROUNDWATER MONITORING RESULTS FOR 100-K AREA FUEL STORAGE BASINS JANUARY TO JUNE 1995 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195062864/D195062864_1183.pdf | This report summarizes and interprets groundwater monitoring results for the nuclear fuel storage basins in the 100 K Area of the Hanford Site. It is based on data collected from January 1 through June 30 1995. I t includes interpretive graphics and numerical tabulations of the monitoring results.The majority of the document is an appendix contains a listing of all results for the K Basins near field monitoring wells sampled during the current reporting period for the Operational Environmental Monitoring program. | D | | Y,S,X,P | | NO | NO |
| SD-EN-TI-280 | REV 1 | 100-K | 100-KR-2 | 1995 NOV | CJ CHOU,<br>VG JOHNSON<br>WHC | GROUNDWATER MONITORING RESULTS FOR 100-K AREA FUEL STORAGE BASINS MARCH TO DECEMBER 1994 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D195062918_1184.pdf | This report summarizes and interprets groundwater monitoring results for the nuclear fuel storage basins in the 100 K Area of the Hanford Site. It is based on data collected from March through December 1994. It includes interpretive graphics and numerical tabulations of the monitoring results. The majority of the document is tables and figures relating to this report. | D | | Y,S,X,P | | NO | NO |
| SD-EN-TI-294 | REV 0 | 100-K | 100-KR-1<br>100-KR-2 100-KR-3 100-KR-4 | 1995 MAR | JW LINDBERG<br>WHC | HYDROGEOLOGY OF 100-K AREA SOUTH CENTRAL WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196030276/D196030276_4127_68.pdf | The purpose of this document is to report the geologic and hydrologic characteristics of the 100-K Area and vicinity. It is part of an overall plan to enhance the groundwater monitoring capabilities around the 100-K Area Fuel Storage Basins. This report is based on data acquired during recent drilling activities, data from older projects and boreholes from the area, and analysis of analogous geologic units from outcrops and coreholes located elsewhere in the region. The report is divided into three main parts: (1) Section 2.0, a brief review of the regional setting, (2) Section 3.0, a discussion of 100-K Area geology, and (3) Section 4.0, a discussion of 100-K Area groundwater hydrology. | D,H | G,Z,T | | A | NO | NO |
| SD-SNF-DP-005 | REV 0 | 105-K | 100-KR-2 | 1996 JAN | GL MILLER<br>WHC | 105-K EAST SANDFILTER BACKWASH LINE SAMPLE ANALYSIS REPORT SECOND CAMPAIGN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196033374/D196033374_4332_32.pdf | This project seeks to produce uranium (U) and plutonium (Pu) analyses of samples taken from the KE basin filter backwash line each time the sand filter is backwashed. K Basin operations will use the analytical results todetermine additions of fissile materials to the backwash sludge pit and thereby maintain a running inventory of fissile elements in the pit. The second campaign of this project consisted of three samples, numbered by the customer 208KEB, 209KEB, and 210KEB. | D | G,Z | Y | A | NO | NO |
| SD-SNF-DP-006 | REV 0 | 105-K | 100-KR-2 | 1996 JAN | GL MILLER<br>WHC | 105-K EAST SANDFILTER BACKWASH LINE SAMPLE ANALYSIS REPORT THIRD CAMPAIGN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196033379/D196033379_4333_32.pdf | This project seeks to produce uranium (U) and plutonium (Pu) analyses of samples taken from the KE basin filter backwash line each time the sand filter is backwashed. K Basin operations will use the analytical results todetermine additions of fissile materials to the backwash sludge pit and thereby maintain a running inventory of fissile elements in the pit. The third campaign of this project consisted of three samples, numbered by the customer 245KEB, 246KEB, and 247KEB. | D | G,Z | Y | A | NO | NO |
| SD-SNF-ES-002 | REV 0 | 100-K | 100-KR-2 | 1994 SEPT | GS HUNACEK<br>WHC | 100-KE BASIN WATER DISPOSITIONING ENGINEERING STUDY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D199105356/D199105356_19483_119.pdf | This engineering study will examine feasible options for disposition of the IO5-KE Spent Fuel Storage Basin water, as necessary, to reduce tritium levels to 300,000 pCi/L in compliance with Tri-Party Agreement milestones. The study will include possible alternatives for treatment and disposal options ( that meet applicable water, ground or air effluent comparative levels for various disposal methods) under the following conditions: 1. If the fuel and sludge were removed from the 105KE Basin and placed in the 105KW Basin by 1999; or If the fuel and sludge were not removed from the 105KE Basin until 2002. | D,P | Z | Y,X | A | NO | YES |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD-SNF-ES-005 | REV 0 | 100-K | 100-KR-2 | 1994 SEPT | RG GANT<br>WHC | ENGINEERING STUDY 105-KE TO 105-KW BASIN FUEL AND SLUDGE TRANSFER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D199100065/D199100065_19480_76.pdf | This engineering study was performed to identify and recommend the most feasible and practical method of transferring canisters of irradiated fuel and basin sludge from the 1061KE fuel storage basin (HE Basin) to the 105KW fuel storage basin (KW Basin). Six alternatives were identified during the performance of this study as possible methods for transferring the fuel and sludge from the KE Basin to the KW Basin. | D,P | E | Y | A | YES | YES |
| SD-SNF-ES-005 | REV 0 | 100-K | 100-KR-2 100-KR-4 | 1994 OCT | RJ MORFORD<br>WHC | OPTIONS FOR DISPOSITION OF 100-KE BASIN WATER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196053944/D196053944_5640_60.pdf | The major purpose of this work is to present K-Basin water treatment options for planning purposes that support M-34-00-TO4, in view of recent changes to the physical plant . (e.g., the construction joint isolation barrier) and to project planning for removal of the fuel and sludge from the basins. | D,P | Z | Y | A | NO | YES |
| SD-SNF-PD-007 | REV 0 | 100-K | 100-KR-2 100-KR-4 | 1997 APR | NHC | EVALUATION TO DISPOSITION COMPONENTS OF 100-K BASIN FUEL STORAGE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D197121455/D197121455_15383_163.pdf | The Spent Nuclear Fuels Program is in the process of planning activities to remove spent nuclear fuel and other materials from the 100 K Basins as a remediation effort for clean closure. This document presents the currently available alternatives for the disposition of the K-Basin sludges. | D,P | | Y | A,M | YES | YES |
| SD-SNF-PD-007 | REV 0 | 100-K | 100-KR-4 | 1994 OCT | DL SHERRELL<br>WHC | SCHEDULE FOR FINAL DISPOSITION OF CONTAMINATED 100-KE BASIN WATER | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0034/D196053940/D196053940_5639_16.pdf | The purpose of this document is to provide WHC's recommended schedule describing the activities for the final disposition of contaminated K-East Basin water. This schedule is for planning purposes in the overall goal to move the fuel, sludge and water from the K Basins and relocate it away from the Columbia River until it can be ultimately disposed. | D,P | | | A | NO | YES |
| SD-SNF-TI-009 | Vol.1, Rev. 2 | 105-KW, 105KE | 105-KW, 105KE | 1998 Aug | A.N. Praga | 105-K BASIN MATERIAL DESIGN BASIS FEED DESCRIPTION FOR SPENT NUCLEAR FUEL PROJECT FACILITIES VOLUME 1 FUEL | http://www5.hanford.gov/arpir/?content=findpage&AKey=D198148320 | The purpose of this document is to describe the design basis feed compositions for materials stored or processed by SNF Project facilities and activities. This document is not intended to replace<br>the Hanford Spent Fuel Inventory Baseline (WHC 1994b), but only to supplement it by providing more detail on the chemical and radiological inventories in the fuel (this volume) and sludge. | D,H,P | | X | A | NO | NO |
| SD-SNF-TI-013 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1995 OCT | KH BERGSMAN<br>WHC | 100-K BASIN EIS TECHNICAL INPUT DOCUMENT | http://www5.hanford.gov/pdw/fsd/ar/fsd0001/fsd0002/d196070348/d196070348_6728_426.pdf | The K Basins EIS will evaluate the potential environmental consequences of alternatives for reducing risks associated with continuing to manage SNF in the K Basins. The K Basins EIS will evaluate the period from 1996 until ultimate disposition of the SNF (i.e., up to 40 years). This document has been prepared by the WHC, the Maintenance and Operations contractor at the Hanford Site, to provide the EIS preparer with the background information and technical input necessary to develop and evaluate these alternatives within the K Basins EIS. This document was prepared based on the proposed alternatives identified by DOE, with the exception that information is not provided on transfer of the K Basins SNF to another site within the DOE complex. | D,P | Z | Y,S,X | A | YES | YES |
| SD-SNF-TI-013 | Vol.2, Rev. 2 | 105-KW, 105KE | 105-KW, 105KE | 1998 Sept | K L. Pearce<br>S. C. Klimper<br>T. A. Flament | 105-K BASIN MATERIAL DESIGN BASIS FEED DESCRIPTION FOR SPENT NUCLEAR FUEL PROJECT FACILITIES VOLUME 2 SLUDGE | http://www5.hanford.gov/arpir/?content=findpage&AKey=D198166354 | The purpose of this document is to describe the design basis feed compositions for the baseline K East (KE) Basin and K West (KW) Basin sludge process streams expected to be generated during Spent Nuclear Fuel (SNF) Project activities. Four types of feeds are required to support evaluation of specific facility and process considerations during the development of new facilities and processes. | D,H,P | | X | A | NO | NO |
| SD-TWR-OCD-001 | Rev. 0 | 100-K | 100-K | 1998 Jan | M.J. Packer | 100-K BASINS SLUDGE INVENTORY COMPOSITION | http://www5.hanford.gov/arpir/?content=findpage&AKey=D198022906 | The purpose of this document is to define the baseline K East (KE) Basin and K West (KW) Basin sludge process streams expected to be fed to the sludge conditioning system(s) for disposal. This document shall replace, in its entirety, the previously documented K Basin sludge disposal evaluation (Pearce 1997). | P | | X | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD-WM-DP-062 | Rev 0 | 100-K | 100-KR-2 | 1997 May | KG CAROTHERS, LMHC | 100-K BASIN SLUDGE PRETREATMENT REQUIREMENTS SUMMARY | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D197217958/D197217958_16163_15.pdf | As part of the accelerated removal action to repackage and relocate the spent nuclear fuel from the 105-K East and 105-K West Fuel Storage Basins, DOE is considering the disposition of the radioactive basin sludge by transfer to one of Hanford's double-shell tanks. This document provides technical requirements for processing the K Basin sludge for acceptance into the Tank Waste Remediation System doubleshell tank system. | | | Y | A | NO | NO |
| SD-WM-DP-062 | REV 0 | 100-K | 100-KR-2 | 1994 FEB | AD RICE, WHC | 105-KE SAND FILTER BACKWASH PIT SECOND CAMPAIGN [SECTION 1 OF 2] | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0046/D196144974/D196144974_58659211_78009_702.pdf | Data for the Sand Filter Backwash Pit (SFBWP) Second Campaign samples are being reported in accordance with WHC-SD-NR-PLN-013, which provides the strategy and methods to be used to sample and analyze the sludge on the floor of the 105-KE Irradiated Fuel Storage Basin Sand Filter Backwash Pit and transfer channel. The primary goal of this activity is to provide characterization data of the solid residual materials from the 105-KE Basin sand filtering process as the materials have accumulated in the SFBWP. | D | Z | Y | A | NO | NO |
| SD-WM-DP-138 | REV 0 | 100-K | 100-KR-2 | 1994 FEB | AD RICE, WHC | 105-KE SAND FILTER BACKWASH PIT SECOND CAMPAIGN [SECTION 2 OF 2] | http://www5.hanford.gov/arpir/?content=detail&AKey=D196144981 | Data for the Sand Filter Backwash Pit (SFBWP) Second Campaign samples are being reported in accordance with WHC-SD-NR-PLN-013, which provides the strategy and methods to be used to sample and analyze the sludge on the floor of the 105-KE Irradiated Fuel Storage Basin Sand Filter Backwash Pit and transfer channel. The primary goal of this activity is to provide characterization data of the solid residual materials from the 105-KE Basin sand filtering process as the materials have accumulated in the SFBWP. | D | Z | Y | A | NO | NO |
| SD-WM-DP-138 | REV 0 | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1995 AUG | GL MILLER WHC | ANALYSIS OF 100-KW BASIN CANISTER LIQUID SAMPLES | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196006747/D196006747_2360.pdf | Twenty-six water samples were collected from 105-K West Basin fuel canisters between March 15 and March 27, 1995. The samples were received in two shipments by the 222-S Laboratory on April 20 and May 4, 1995, for inorganic and radiochemical analyses. All samples were logged into the laboratory using the LABCORE laboratory information management system. Description of the process is briefly stated here. Due to the large volume, a copy of the data supporting the Data Validation Report and the Sample Data Summary is available only from Central Files . | D | | Y | A | NO | NO |
| SGW-40896 | REV 0 | 100-K | 105-K | 2009 AUG | CHPRC | AIR MONITORING PLAN FOR THE WASTE SITES NEAR 105-KE BASIN IN THE 100-K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0054/1001140040/[1001140040].PDF | This air emissions document supports the Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17) for remediation of the K Area Waste Sites. It provides information on radiological air emissions, criteria/toxic air emissions, radiological airbornie source information, emission controls, and monitoring. | D,P | G | Y,X | | NO | NO |
| SGW-40896 | REV 0 | 100-K | 100-KR-2 | 1997 MAY | TS VAIL DESH | FEASIBILITY REPORT ON CRITICALITY ISSUES ASSOCIATED WITH STORAGE OF 100-K BASIN SLUDGE IN TANK FARMS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D197180893/D197180893_15672_277.pdf | This feasibility study provides the technical justification for conclusions about K Basin sludge storage options. The conclusions, solely based on criticality safety considerations, depend on the treatment of the sludge. The two primary conclusions are, 1) untreated sludge must be stored in a critically safe storage tank, and 2) treated sludge (dissolution, precipitation and added neutron absorbers) can be stored in a standard Double contained Receiver Tank (DCRT) or 241-AW-105 without future restrictions on tank operations from a criticality safety perspective. | D,P | | Y | A,M | YES | YES |
| SGW-40896 | REV 1 | 100-K | 100-K | 2010 AUG | TK TEYNOR, RA LOBOS, DOE-RL, EPA | AIR MONITORING PLAN FOR WASTE SITE REMEDIATION IN THE 100-K AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0059/0084264/SGW-40896_R1_100K%20AMP_20100826_final%20doc.pdf | This air monitoring plan supports the Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17) for remediation of the 100-K Area Waste Sites located inside the fence and on the floodplain. This revision incorporates the following changes made to Revision 0: 1. Changes made to the 100-K Area Near Facility ambient air monitoring network. 2. Changes made to the potential-to-emit (PTE) estimate. 3. Changes made to the radionuclide air monitoring activities supporting the 100-K Area remediation work. | D,P | G | Y,X | | NO | NO |
| SGW-41213 | REV 0 | 100-K | 100-KR-4 | 2009 AUG | DOE-RL | 100-KR-4 REMEDIAL PROCESS OPTIMIZATION MODELING DATA PACKAGE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0052/0908311235/[0908311235].PDF | This report provides details on model development and assignment of parameter values, including the types and sources of information used to support model development and application of the model in the evaluation of the remedy expansion alternatives for the 100-KR-4 OU. Information includes: Site Infrastructure and Process Operations, Contamination Sources, Natural and Anthropogenic Recharge, Hydrogeology, Vadose Zone Properties, Aquifer and Transport Properties, Water-Level Maps, River Data and bathymectry, Aquifer Tubes, and Chromium Concentration. | D,H,P | G,Z,T | Y,S,X,P | A,M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SGW-42305 | REV 0 | HANFORD SITE | 100-KR-4 200-ZP-1 | 2009 NOV | CHPRC | COLLECTION AND MAPPING OF WATER LEVELS TO ASSIST IN THE EVALUATION OF GROUNDWATER PUMP AND TREAT REMEDY PERFORMANCE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0911170654/[0911170654].PDF | This document describes a method for preparing groundwater-level maps that can improve the inference drawn from those data that can be used to help estimate the extent of hydraulic capture developed by groundwater pumnp-and-treat remedies. 100-KR-4 AND 200-ZP-1 are used as field examples. | D,P | H | | A,M | NO | NO |
| SGW-44686 | REV 0 | 100-K | 100-KR-4 | 2010 AUG | CHPRC | DESCRIPTION OF WORK FOR AQUIFER TESTING AT EXTRACTION WELL 199-K-178 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0058/1008120792/[1008120792].PDF | This description of work (DOW) covers a pulmping test by the Soil and Groundwater Remediation Project at new extraction well 199-K- 178. This test wvill be performed at well 199-K- 178 following its connection to the KX pump-and-treat systemn at the 100-KR-4 Operable Unit (OU). This test will measure aquifer properties in and around well 199-K-I 78 and will provide data for modeling the capture of hexavalent chrormum in this portion of the contaminant plume. This DOW outlines the test setup and objectives and will be used in | D | Z | Y,P | M | NO | NO |
| SGW-47256 | REV 0 | 100-K | 100-K-63 | 2010 MAY | RB DEMARIS, CH2M HILL | 100-K-63 WASTE SITE GIS FILL ANALYSIS REPORT | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0058/0084310/SGW-47256%20(2).pdf | Remediation is planned for Waste Site 100-K-63 located on the KW-Reactor floodplain. This area is currently posted as an area with underground radioactive material and soil contamination. Remediation will include the removal of up to 15 feet of contaminated material. This waste site contains significant amounts of fill material from the construction of the KW Reactor. Since this area is adjacent to the Columbia River, and has high cultural resource sensitivity, it is imperative to ensure that project activities will not impact potential cultural resources under fill material. In order to determine the amount of fill and the pre-reactor ground surface, a Geographic Information System (GIS) analysis of the waste site was conducted. Based on topographic maps, pre-Hanford historic photos and Hanford-Era photos of Waste Site 100-K-63, it is clear that massive earthworks operations have taken place. | D,H | G,T | Y | A | NO | NO |
| SNF-13069 | | 100-KR-2 | 100-KR-2JL | 2003 DEC | JL WESTCOTT | Sampling and Analysis Plan for Waste Disposition of KE Basins Wall and Floor Surface Removal Residue | http://www5.hanford.gov/arpir/?content=detail&AKey=D3571654 | To lower the radiation dose produced by the K East Basin once the water is drained, removal of the basin concrete wall and floor surfaces is planned. The uncoated concrete surface is known to have been penetrated by gamma-radiation-producing radionuclides, primarily Cs-137, to the extent that surface removal is necessary. The removed concrete surface residue will be collected and packaged for eventual disposal The residue will contain radionuclides and will be managed for polychlorinated biphenyls (PCB) under the Toxic Substances Control Act of 1976 (TSCA) applicable or relevant and appropriate requirements (ARAB). The source of radioactive contammation is the spent fuel stored in the basin, primarily N Reactor fuel The waste residues must be characterized and designated to facilitate proper management The residues will be PCB remediation waste that is either transuranic (TRU) (U S Nuclear Regulatory Commission [NRC] greater than Class C) or low-level radioactive | D,H,P | | Y,S | A | No | NO |
| SNF-13069 | REV 0 | 100-K | 100-KR-2 | 2003 FEB | G SLY<br>G WOODCOCK<br>FLUOR | SLUDGE WATER SYSTEM SYSTEM DESIGN DESCRIPTION PROJECT A.16 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D0795204/D0795204.PDF | This document describes the processes of The Sludge Water System, which consists of two sub-systems: the Sludge Retrieval System and the Sludge Transportation System. The SRS has been designed and constructed to move sludge from the 105-KE Basin to the Large Diameter Container where it interfaces with the STS to move the sludge to the T-Plant in the 200 Area. It is a part of the Spent Nuclear Fuel Project. | D,P | Z,E | Y,X | M | YES | NO |
| SNF-2671 | Rev. 1 | *100-K K basin* | 100-K K basin | 1999 MAY | J. J. Irwin | Spent Nuclear Fuel Project Cold Vacuum Drying<br>Facility Operations Manual | http://www.osti.gov/bridge/purl.cover.jsp?purl=/782339-1wvfsn/webviewable/ | This document provides the Operations Manual for the Cold Vacuum Drying Facility (CVDF). The Manual was developed in conjunction with HNF-SD-SNF-SAR-002, Safety Analysis Report for the Cold Vacuum Drying Facility, Phase 2, Supporting Installation of Processing Systems(Garvin 1998) and, the HNF-SD-SNF-DRD-002, 1997, Cold Vacuum Drying Facility Design Requirements, Rev. 3a. The Operations Manual contains general descriptions of all the process, safety and facility systems in<br>the CVDF, a general CVD operations sequence, and has been developed for the SNFP Operations Organization and shall be updated, expanded, and revised in accordance with future design, construction and startup phases of the CVDF until the CVDF final ORR is approved. | D,P | Z | Y,S, X | A,M | Yes | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SNF--3205--REV1 | Rev. 1 | K Basin | K Basin | 1999 FEB | R. 0. Morgan | Risk Assessment of Drain Valve Failure in the K-West Basin South Loadout Pit | http://www.osti.gov/bridge/purl.cover.jsp?purl=/782429-PX3Fpb/webviewable/ | This document identifies the risks associated with working in the south loadout pit during construction by SNF Facility Projects. | D,P | | | A | Yes | NO |
| SNF-4775 | REV1 | 100-K K Basin | 100-K K Basin | 1999 APR | R. 0. Morgan | Risk Assessment of K Basin Twelve-inch and Four-Inch Drain Valve Failure from a Postulated Seismic Initiating Event | http://www.osti.gov/bridge/purl.cover.jsp?purl=/782430-NuxUGS/webviewable/ | This document identifies the risks of leakage from the K Basins twelve-inch and four-inch drain valves due to objects potentially being dislodged and falling on the valves during a seismic event. | D,H | | | A | Yes | NO |
| SNF-4977 | Revision 2 | 105K/70.2/100K | 105K/70.2/100K | 2000 APR | K. E. Ard Fluor Hanford | Evaluation of the Cask Transportation Facility Modifications (CTFM) Compliance to DOE Order 6430.1A - Project A.9A.6 | http://www.osti.gov/bridge/purl.cover.jsp?purl=/803028-3qePgR/webviewable/ | This report was prepared to evaluate the compliance of CTFM to DOE Order 6430.1A. | D,H, P | G,H | Y,S,X | A | Yes | NO |
| SNF-5066 | Rev.0 | 100-K | 100-K | 1999 OCT | NELSON, J.V. | Integrated Worker Radiation Dose Assessment for the K Basins | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=798140&Row=8 | This report documents an assessment of the radiation dose workers at the K Basins are expected to receive in the process of removing spent nuclear fuel from the storage basins. The K Basins (K East and K West) are located in the Hanford 100K Area. The goal of the Spent Nuclear Fuel (SNF) Project is to remove all SNF from the K Basins in the Hanford 100-K Area and put it in interim dry storage in the Canister Storage Building located in the 200 East Area. Removal of the SNF from the K Basins entails loading fuel elements and fuel scrap into specially designed baskets, which are stacked in water-filled multicanister over packs (MCOs). | D,P | G,Z | Y,S,X | A | NO | NO |
| SNF-5925 | REV 0 | 100-K | 100-KR-2 | 1999 SEPT | PD RITTMANN FH | COMPARISON OF TOXICOLOGICAL AND RADIOLOGICAL ASPECTS OF 100-K BASINS SLUDGE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0015/D8095982/D8095982_26341_53.pdf | The approach followed in this report is: First, the composition of K basins sludge is described. Second, concentration-weighted risk guidelines (CWRG) are computed. Finally, the radiological and the toxicological consequences of postulated accidents are compared using a ratioing approach in which doses and air concentrations are divided by the corresponding DOE-RL guidance. | D,P | | Y | A | NO | NO |
| SNF-6398 | Rev.0 | 100-K | 100-K | 2000 Mar | MULLER, F.J. | Acceptance for Beneficial Use for the 100K Service Water Pumps Auto Start Modifications Project 1K-97-3466M | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=1&osti_id=801891&Row=9 | This Acceptance for Beneficial Use checklist covers the modifications to the K Basins service water pumps that added an auto-start function for reliability of the fire suppression system. The following information is to document the Acceptance for Beneficial Use (ABU) with a checklist and supporting information. | D | | | Y | NO | NO |
| SNF-8163 | Revision 0 | 105-KE 105-KW | 105-KE 105-KW | 2000 MAY | C. C. Farwick | Canister Cleaning System Final Design Report - Project A.2.A | http://www.osti.gov/bridge/purl.cover.jsp?purl=/803971-pJ3GWe/webviewable/ | This is a report on the final design of the Canister Cleaning System. The Canister Cleaning System (CCS) is part of the Debris Removal Project. The CCS will be installed in the KW Basin and operated during the fuel removal activity. The KW Basin has approximately 3600 canisters that require removal from the basin. The CCS is being designed to “clean” empty fuel canisters and lids and package them for disposal to the Environmental Restoration Disposal Facility complex. | D,H,P | | | A | Yes | NO |
| SNF-8163 | | 100-K | 100-KR-2 | 2002 DEC | RK SANAN FLUOR | PERFORMANCE SPECIFICATION FOR 100-K EAST BASIN SLUDGE TRANSPORTATION SYSTEM PROJECT A.16 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D0384895/D0384895.PDF | This performance specification documents the necessary requirements and criteria for procurement of the Hanford K East Basin Sludge Transportation System, for use by the Fluor Hanford Spent Nuclear Fuel Project. This document shall be used for the onsite shipment of KE Basin Sludge for subsequent storage. A descriptive reference document. | D,P | E | Y,X | M | YES | NO |
| SNF-8166 | REV 2 | 100-K | 100-KR-2 | 2003 MAR | RK SANAN DW DALING FLUOR | FUNCTIONAL DESIGN CRITERIA KE BASIN SLUDGE AND WATER SYSTEM PROJECT A.16 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/D0850912/D0850912.PDF | This entry is a list of revisions made to revision 2 of the original document. Revision 2 is included following the changes. The document is a Functional Design Criteria document and it provides the requirements for the KE Basin sludge and water systems. The A-16 subproject distinction refers to the design, fabrication, installation, and testing of equipment neccessary to reove sludge from the basin and treat the water to maintain water clarity during sludge retieval and removal operations. | D,P | | Y | M | YES | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SNF-9430 | Rev.0 | 105-KW, 105KE | 105-KW, 105KE | 2001 Nov | KUEBERTH, L.R. | Fuel transfer system ALARA design review - Project A.15 | http://www5.hanford.gov/pdwdocs/fsd0001/osti/2001/l0037792.pdf | One mission of the Spent Nuclear Fuel (SNF) Project is to move the SNF from the K Basins in the Hanford 100K Area to an interim dry storage at the Canister Storage Building (CSB) in the Hanford 200 East Area. The Fuel Transfer System (FTS) is a subproject that will move the SNF from the 105K East (KE) Facility to the 105K West (KW) Facility. The SNF will be treated for shipment to the Cold Vacuum Drying (CVD) facility at the KW Basin | D,H | Z | Y,S | A | NO | NO |
| SNF-9430 | REV 2 | 100-K | K BASINS | 2005 MAR | FLUOR HANFORD | WASTE MANAGEMENT PLAN FOR K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0056/1006100790/[1006100790].PDF | The purpose of this Waste Management Plan is to describe the process and requirements for the management and disposal of waste generated during the CERCLA interim remedial action and implements Federal, State, and local regulatory requirements as well as best management practices which are designed to ensure protection of human health and the environment. Waste Management Plan for K Basins Interim Remedial Action, SNF-9430, Revision 2 adds extended CERCLA waste accumulation areas around 105K East/lOS K West basins. Also an additional waste accumulation area is identified near 183KW Water Plant. Words have been added to address the name change of the project. Subject identifiers have been added in the document. | D | G | Y,X | | YES | NO |
| TPA-CN-238 | | 100-K | 100-KR-2 | 2005 DEC | L GADBOIS, M MCCORMICK EPA, DOE-RL | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS WORK PLANS IN ACCORDANCE WITH TPA ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS DOE/RL-99-89 REMEDIAL DESIGN | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0009/DA01655444/DA01655444_34062_7.pdf | This Change Notice for TPA-CN-145 K BASINS INTERIM REMEDIAL ACTION HOSE-IN-HOSE (HIH) REMEDIAL DESIGN identifies changes to the remedial design for the HIH transfer system and how these changes are categorized as to their significance. | D | | | | | |
| TPA-CN-238 | REV 1 | 100-K | K BASINS | 2008 DEC | DOE-RL | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS WORKPLANS IN ACCORDANCE WITH THE TRI PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR THE K BASINS INTERIM REMEDIAL ACTION DOE/RL-99-89 | http://www5.hanford.gov/arpir/?content=findpage&AKey=0812091131 | This change notice describes a change in the process for containerization of sludge in the 105-K West (KW) Basin. It consists of a new system from that described in the documents referenced above. This change notice describes the design details for the removal of sludge previously collected in the KW Basin Integrated Water Treatment System (IWTS) settler tanks to an existing empty container (SCS-CON-230) in the KW Basin. The settler tank sludge will be retrieved and containerized as described in the attached design change description. | P | Z | Y | M | NO | NO |
| TPA-CN-270 | REV 1 | 100-K | 105-K | 2009 MAR | N/A | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS WORKPLANS IN ACCORDANCE WITH THE TRI PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR THE K BASINS INTERIM REMEDIAL ACTION DOE/RL-99-89 | http://www5.hanford.gov/arpir/?content=findpage&AKey=0904130551 | The conceptual design for sludge retrieval and removal from the 105-K East (KE) and 105-K West (KW) Basins is described in the Remedial Design Report and Remedial Action Work Plan for the K Basins Interim Remedial Action. The remedial design for the retrieval and removal of sludge from the KE Basin has previously been submitted and approved. The conceptual design for the retrieval and removal of knock-out-pot (KOP) sludge from the KW Basin is currently under development. This remedial design change describes details for washing KOP sludge to prepare the KOP sludge for removal from the KIW Basin. | D,H,P | G | Y,S | M | NO | NO |
| TPA-CN-273 | | 100-K | 100-HR-3 199-K | 2009 MAY | BL CHARBONEAU DOE/RL | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS/WORKPLANS IN ACCORDANCE WITH THE TRI-PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0095228/TPA-CN-273%20for%20KR4%20RDRA%205%2021%2009.pdf | Change notice to the RDR/RAWP list of wells associated with the KR4 and KX well networks, which identify groundwater monitoring requirements for the wells in the networks, and the flow rates for wells connected to the pump-and-treat systems. It includes Phase 2, wich are well realignment actions and need to be revised. | | | Y | M | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPA-CN-273 | | 100 AREA | 100-HR-3 100-KR-4 100-NR-2 | 2009 MAY | BL CHARBONEAU DOE/RL | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS/WORKPLANS IN ACCORDANCE WITH THE TRI-PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS DOE/RL-2006-75 REV 1 SUPPLEMENT TO THE 100-HR-3 AND 100-KR-4 REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORKPLAN FOR THE EXPANSION OF THE 100-KR-4 PUMP AND | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0912220120/[0912220120].PDF | This change reflects changes in management approach to providing technical support for 100-Areas Groundwater Operable Units and pump-and-treat systems. Previously, one individual monitored system performance and groundwater/contaminant plume response for the combined 100-HR-3, 100-KR-4 and 100-NR-2 Groundwater Operable Units, and prepared annual and semi-annual reports to insure that the systems were being monitored. With system expansions, Remedial Investigation/Feasibility Study work plan activities, remedial process optimization, increased groundwater modeling, andother activities, separate individuals are now responsible for providing more detailed technical support to each 100 Area groundwater operable unit. | D | | Y | P | NO | NO |
| TPA-CN-275 | REV 2-C | 100-K | K BASINS | 2009 APR | T TEYNOR DOE/RL | CHANGE NOTICE FOR MODIFYING APPROVED DOCUMENTS WORKPLANS IN ACCORDANCE WITH THE TRI PARTY AGREEMENT ACTION PLAN SECTION 9.0 DOCUMENTATION AND RECORDS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0050/0904240119/[0904240119].PDF | This document contains changes and revisions to the Sampling and Analysis Plan for K Basins Debris, including data analysis, specific tables, and project management. The scope of the DQO (HNF-6273) included only characterization of debris from the K Basins and immediately adjacent areas, to allow the K Basins Closure (KBC) Project to assign appropriate waste designation. | D,P | G | | | YES | NO |
| TPA-CN-292 | | 100-K | 100-KR-2 | 2009 DEC | TK TEYNOR DOE/RL | QUALITY ASSURANCE PROJECT PLAN SAMPLING AND ANALYSIS PLAN FOR SLUDGE IN THE KW ENGINEERED CONTAINERS KBC-33786 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0053/0912220528/[0912220528].PDF | This Quality Assurance Project Plan/Sampling and Analysis Plan (QAPP/SAP) provides information necessary to implement sludge removal, treatment, storage, and disposal consistent with the following: DOE/RL 2006-06, Remedial Design Report and Remedial Action Work Plan for the K Basins Interim Remedial Action: Sludge Treatment and Interim Storage (work plan). The primary reason that Revision 2 of this document is being issued is to reflect the addition of settling studies to the planned sample analysis of the sludge per Revision 3 of the Data Quality Objectives. This revision also reflects other changes that have been made since Revision 1 was issued. These changes include DOE's revised transportation safety approach for the shipment of sludge samples, changes to the CH2MHill Plateau Remediation Company's procedutre set and the consolidation of these initial two controlling DQO reports into a single document. | D,P | | Y | M | NO | NO |
| TPA-CN-331 | | 100-K | 105-K | 2010 APR | TK TEYNOR, RA LOBOS DOE/RL, EPA | TRI PARTY AGREEMENT TPA CHANGE NOTICE FORM DOE/RL-99-89 REV 1 REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORK PLAN FOR THE K BASINS INTERIM REMEDIAL ACTION | http://www5.hanford.gov/arpir/?content=detail&AKey=1004190822 | Change notice involving a ventilation upgrade to the 105-KW Basin in an ALARA measure that will reduce the radiological airborne contamination in the work place and minimize the need for the workforce to wear respirators. | P | | Y | | YES | NO |
| TPA-CN-357 | | 100-K | 100-KR-4 | 2010 May | B.L. CHARBONEAU, C. GUZZETTI | TRI-PARTY AGREEMENT TPA CHANGE NOTICE FORM, DOE/RL-2009-41, SAMPLING AND ANALYSIS PLAN FOR THE 100-K DECISION UNIT REMEDIAL INVESTIGATION/FEASIBILITY STUDY, DOE/RL-2009-41, REV 0 | | Change notice addresses 1.) relocating a well site from a culturally sensitive area to an acceptable alternate site, 2.) expanding soil sampling in vadose zone for seven wells located in the 100-K Reactor Area, 3.) adjusting well design for a location that undergo waste site remediation and building demolition and 4.) revising GEA reporting list to coincide with that in other RI/FS SAPs. | | | | | | |
| TPA-CN-359 | | 100-K | 100-KR-3 100-KR-4 | 2010 OCT | BL CHARBONEAU DOE/RL | TRI PARTY AGREEMENT TRI PARTY AGREEMENT CHANGE NOTICE FORM DOE/RL-2006-75 REV 1 REISSUE SUPPLEMENT TO THE 100-HR-3 AND 100-KR-4 REMEDIAL DESIGN REPORT AND REMEDIAL ACTION WORKPLAN | http://www5.hanford.gov/arpir/?content=findpage&AKey=1010180129 | Change document regarding a TPA change that revises DOE/RL-2006-75, Rev. 1 (as amended by TPA-CN-273), and DOE/RL-2006-52. Rev. 2, to: (1) incorporate Phase 3 Remediation Process Optimization (RPO) to add new wells to the 100-KR-4 Groundwater Operable Unit Pump and Treat Systems, and (2) realign existing wells (3 extraction and 2 monitoring wells ) to target treatment of higher hexavalent chromium contamination in 2010. | D | | Y | A | NO | NO |
| TPA-CN-380 | | 100-K | 100-KR-2 | 2010 SEPT | TK TEYNOR DOE/RL | TRI PARTY AGREEMENT TPA CHANGE NOTICE FORM DOE/RL-2007-48 REMEDIAL DESIGN REPORT AND ACTION WORK PLAN FOR THE 100 AREA REMAINING SITES INTERIM REMEDIAL ACTION 105 K EAST BASIN DEMOLITION REV 0 | http://www5.hanford.gov/arpir/?content=findpage&AKey=1009131171 | Change document regarding this Justification and Impacts of Change: removal of the 105-KE chute floor and wall together with grout and the east and west wing walls up to the foundation construction joint is needed to facilitate a reduction of radiation levels in the vicinity as an As Low As Reasonable Achievable (ALARA) work practice to enable sampling of soil near or under the construction joint currently covered by grout. Removal of the chute wall is preferred over scabbling of the exposed concrete surface as a means of reducing the radiation levels in the vicinity as scabbling would have the potential to generate more airborne contamination and still not provide access to the underlying construction joint. | D | | | A | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNI-0946 | Rev 0 | 100 Areas | 100-KR-1 | 1978, May | JJ Dorian, VR Richards | Radiological Characterization of the Retired 100 Areas | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/13256931/42764040/42766813/49122045/UNI-946_%5BDA03166120%5D.pdf?nodeid=49124828&vernum=3 | The purpose of this study is to establish radioculide inventories and concentrations in the retired 100 area radioactive solid and liquid waste disposal facilities, leakage areas, reactors and associated facilities. | | | | | | |
| UNI-3714 | REV 1 | 100 AREAS | 100 AREAS | 1987 APR | JM STEFFES, RL MILLER, UNC | RADIONUCLIDE INVENTORY AND SOURCE TERMS FOR SURPLUS PRODUCTION REACTORS AT HANFORD | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0041/D196008078/D196008078_2575.pdf | The purpose of this document is to provide estimated inventories of radionuclides and other hazardous materials in the eight Hanford 100 Area surplus production reactor buildings. This information is intended to support the preparation of an Environmental Impact Statement (EIS) that was being prepared by Battelle Pacific Northwest Laboratory (PNL) for the final decommissioning of these facilities. | D,H,P | | Y,S | A | NO | NO |
| WCH-201 | Rev. 0 | 100-K | 100-K | 2007 Jul | D. J. McBride | 300 Area Building Retention Evaluation Mitigation Plan | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=0&osti_id=944085&Row=0 | Evaluate the long-term retention of several facilities associated with the PNNL Capability Replacement Laboratory and other Hanfor mission needs. WCH prepared a mitigation plan for three scenarios with different release dates for specific buildings. The evaluations present a proposed plan for providing utility services to retained facilities in support of a long-term (+20 year) lifespan in addition to temporary services to buildings with specified delayed release dates. | D,H,P | | | A | Yes | NO |
| WDOH/320-021 | Rev. 0 | 100 Areas: F,B/C, K, N, D, H | 100 Areas: F,B/C, K, N, D, H | 2007 OCT | L. C. Hulstrom | Columbia River Component Data Gap Analysis | http://www.osti.gov/bridge/purl.cover.jsp?purl=/944094-Jwq5OU/ | This Data Gap Analysis report documents the results of a study conducted by Washington Closure Hanford (WCH) to compile and review the currently available surface water and sediment data for the Columbia River near and downstream of the Hanford Site. The U.S. Department of Energy (DOE), which retains responsibility for the Hanford Site, is currently in the process of conducting remedial investigations and activities. This Data Gap Analysis study was conducted to review the adequacy of the existing surface water and sediment data set from the Columbia River, with specific reference to the use of the data in future site characterization and screening level risk assessments. The goal is to determine if there are sufficient data to characterize the current effects of Hanford Site operations on the Columbia River. The specific technical objective of this effort was the identification of spatial, temporal, or analytical data gaps. | D,H,P | G,Z,E, T | Y,S,R | A, | Yew | NO |
| WHC-EP-0394-10 | | 100 AREA | 100 AREA | 1992 MAY | CJ PERKINS WHC | WHC ENVIRONMENTAL SURVEILLANCE ANNUAL REPORT 100 AREA | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196100478/D196100478_9324_116.pdf | Results of the near-field environmental surveillance program for the Hanford Site 100 Areas are presented in this report. The environmental surveillance program provides sampling and monitoring of several parameters to evaluate the environmental impact of 100 N Area Reactor Facilities and the shutdown reactor facilities and burial grounds in the retired 100 Areas. | D,P | E | Y,S,X | A | YES | NO |
| WHC-EP-0394-5 | | 100 AREAS 200 AREAS 300 AREAS 1100 AREAS | 100-BC-5 100-HR-3 100-KR-4 200-ZP-1 200-BP-5 300-FF-5 | 1995 JUN | JA SERKOWSKI WHC | GROUNDWATER MAPS OF HANFORD SITE DECEMBER 1994 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0032/D196006896/D196006896_2373.pdf | This is a continuation of a series of reports that document the configuration of the uppermost unconfined aquifer beneath the Hanford Site. This series presents the results of the semiannual water level measurement program and the water table maps generated from these measurements. The reports document the changes in the groundwater level at the Hanford Site during the transition from nuclear material production to environmental restoration and remediation. In addition, these reports provide water level data to support the various site | D | | | | NO | NO |
| WHC-EP-0394-6 | | 100 AREAS 200 AREAS 300 AREAS 1100 AREAS | 100-BC-5 100-HR-3 100-KR-4 200-ZP-1 200-BP-5 300-FF-5 | 1992 DEC | GL KASZA WHC | GROUNDWATER MAPS OF HANFORD SITE JUNE 1992 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196119699/D196119699_11697_44.pdf | This is a continuation of a series of reports that document the configuration of the uppermost unconfined aquifer beneath the Hanford Site. This series presents the results of the semiannual water level measurement program and the water table maps generated from these measurements. The reports document the changes in the groundwater level at the Hanford Site during the transition from nuclear material production to environmental restoration and remediation. In addition, these reports provide water level data to support the various site | D | | | | NO | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHC-EP-0394-7 | | 100 AREAS<br>200 AREAS<br>300 AREAS<br>1100 AREAS | 100-BC-5<br>100-HR-3<br>100-KR-4 200-ZP-1 200-BP-5<br>300-FF-5 | 1993 SEPT | GL KASZA<br>WHC | GROUNDWATER MAPS OF HANFORD SITE DECEMBER 1992 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196097003/D196097003_9052_55.pdf | This is a continuation of a series of reports that document the configuration of the uppermost unconfined aquifer beneath the Hanford Site. This series presents the results of the semiannual water level measurement program and the water table maps generated from these measurements. The reports document the changes in the groundwater level at the Hanford Site during the transition from nuclear material production to environmental restoration and remediation. In addition, these reports provide water level data to support the various site characterization and groundwater monitoring programs currently in progress on the Hanford Site. | D | | | | NO | NO |
| WHC-EP-0497 | | 100 AREAS<br>200 AREAS<br>300 AREAS<br>1100 AREAS | 100-BC-5<br>100-HR-3<br>100-KR-4 200-ZP-1 200-BP-5<br>300-FF-5 | 1994 FEB | GL KASZA<br>WHC | GROUNDWATER MAPS OF HANFORD SITE JUNE 1993 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0035/D196096952/D196096952_9033_49.pdf | This is a continuation of a series of reports that document the configuration of the uppermost unconfined aquifer beneath the Hanford Site. This series presents the results of the semiannual water level measurement program and the water table maps generated from these measurements. The reports document the changes in the groundwater level at the Hanford Site during the transition from nuclear material production to environmental restoration and remediation. In addition, these reports provide water level data to support the various site characterization and groundwater monitoring programs currently in progress on the Hanford Site. | D | | | | NO | NO |
| WHC-EP-0510 | DRAFT A | 100 AREA | 100 AREAS | 1992 NOV | RE FITZNER,<br>SG WEISS,<br>PNL,<br>WHC | BALD EAGLE SITE MANAGEMENT PLAN FOR HANFORD SITE SOUTH CENTRAL WASHINGTON | http://www5.hanford.gov/arpir/?content=detail&AKey=D196110616 | The habitat used by the bald eagle and Peregrine Falcon on the Hanford Site includes perch sites, night roosts, foraging areas, and nesting areas. The studies at Hanford have revealed that bald eagle use can occur virtually anywhere along the Columbia River. This report focuses on these aspects, in the hopes that continued research and legislature in favor of them will help these species flourish. | D | C,E,T | | | NO | NO |
| WHC-EP-0510 | REV 0 | 100 AREA | 100 AREAS | 1994 DEC | RE FITZNER,<br>SG WEISS,<br>PNL,<br>WHC | BALD EAGLE SITE MANAGEMENT PLAN FOR HANFORD SITE SOUTH CENTRAL WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196033942/D196033942_4382_26.pdf | The habitat used by the bald eagle and Peregrine Falcon on the Hanford Site includes perch sites, night roosts, foraging areas, and nesting areas. The studies at Hanford have revealed that bald eagle use can occur virtually anywhere along the Columbia River. This report focuses on these aspects, in the hopes that continued research and legislature in favor of them will help these species flourish. | D | C,E,T | | | NO | NO |
| WHC-EP-0510 | | 100-K | 100-KR-1 100-KR-2 100-KR-3 100-KR-4 | 1991 NOV | WHC | FACILITY EFFLUENT MONITORING PLAN FOR 100-K AREA FUEL STORAGE BASINS | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196081733/D196081733_7526_196.pdf | This plan consists of a Facility Effluent Monitoring Plan (FEMP) and an environmental surveillance plan. The facilities in the 100-K Area release radionuclides to the environment and require a FEMP. This FEMP for the 100-K Area has been prepared to ensure that releases are monitored, the quantities measured, and the impacts to the public are evaluated. The K Area FEMP determination evaluated the gaseous emissions and liquid effluent of 105-KE and 105-KW Fuel Storage Basins, 1706-KE Environmental and Engineering Demonstration Laboratory (1706-KEL), and the 1706-KE Water Studies Recirculation Building (1706-KER) and determined the potential annual radiation exposure to the maximally exposed individual offsite. This evaluation determined the degree to which Westinghouse Hanford must monitor the 100-K Area airborne emissions and liquid effluents. | D,P | | Y,S,X | A | NO | YES |
| WHC-EP-0513 | REV 1 | 100 AREA | 100 AREAS | 1994 FEB | RE FITZNER,<br>SG WEISS,<br>PNL,<br>WHC | BALD EAGLE SITE MANAGEMENT PLAN FOR HANFORD SITE SOUTH CENTRAL WASHINGTON | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0033/D196015404/D196015404_2993_22.pdf | The habitat used by the bald eagle and Peregrine Falcon on the Hanford Site includes perch sites, night roosts, foraging areas, and nesting areas. The studies at Hanford have revealed that bald eagle use can occur virtually anywhere along the Columbia River. This report focuses on these aspects, in the hopes that continued research and legislature in favor of them will help these species flourish. | D | C,E,T | | | NO | NO |
| WHC-EP-0609 | | 100-B/C AREA<br>100-D AREA<br>100-F AREA<br>100-H AREA<br>100-K AREA<br>100-N AREA | 100-B/C AREA<br>100-D AREA<br>100-F AREA<br>100-H AREA<br>100-K AREA<br>100-N AREA | 1994 JUN | R. E. Fitzner<br>PacificNorthwestLaboratory<br>S. G. Weiss<br>J. A. Stegen<br>WestinghousHeanfordCompany | Threatened and Endangered Wildlife Species of the Hanford S,te Related to CERCLA Characterization Activities | http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=05A2BAEE797393C435DCF70B0F570A9D?purl=/10167540-KVY8dF/native/ | This document is about the waste site characterization activities on the Hanford Site in south-Central Washington State. The U.S. Department of Energy began waste site characterization activities. These activities take place in the 100, 200, 300, 600, and 1100 areas of the Hanford Site in a number of operable units. Activities include nonintrusive activities (e.g., surface radiation surveys, ground-penetrating radar surveys, electromagnetic induction/magnetometer surveys, soil and sediment sampling, soil-gas surveys, geologic investigations, and surface water and sediment sampling) and intrusive activities (test pit soil sampling, waste site cleanup, and borehole and well drilling). Other work includes air monitoring, ecological investigations, and cultural resources investigations. | D,H, P | G,Z,C,E,T | Y,S,X | A | Yes | NO |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHC-EP-0830 | | 100-K | 100-BC-5<br>100-HR-3<br>100-KR-4 | 1992 DEC | RE PETERSON, VG JOHNSON WHC | RIVERBANK SEEPAGE OF GROUNDWATER ALONG 100 AREA SHORELINE | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0037/D196124079/D196124079_12143_74.pdf | During September and October 1991, an extensive sampling project was completed along the Columbia River shoreline adjacent to the retired production reactor areas, 100 Areas. Samples were collected during moderately low river stage and included riverbank seepage, sediments associated with the seepage, and nearshore river water. The following report provides a summary of the results and compares them with historical data on riverbank seepage and data from groundwater wells located near the river. | D,P | G,Z | Y,S,X,P | A | NO | NO |
| WHC-EP--0909 | REV 0 | 100-K | 100-KR-2 | 1994 OCT | JC FULTON WHC | HANFORD SPENT NUCLEAR FUEL PROJECT RECOMMENDED PATH FORWARD VOLUME I RECOMMENDED PATH FORWARD | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0025/D8221678/D8221678_26347_35.pdf | The purpose of this document is to provide WHC's recommended path for resolving the safety and environmental concerns associated with the deteriorating fuel in K Basins and providing for the safe interim storage of this material pending establishment of a national spent nuclear fuel strategy and the criteria for its ultimate disposal. | D,P | | Y,X | | NO | YES |
| WHC-MR-0170 | | 100-KE | 100-KE | 1996 Jul | Betsch, M.D., Westinghouse Hanford | Feasibility study 100 K East Area water purification pools fish-rearing program | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=296587&Row=13 | As part of the feasibility study, a design analysis was conducted to determine the usefulness of the existing sand filters and associated media for reuse. The sand filters which were studied for potential reuse are located on the northern end of the 100-K East Area water filtration plant on the Hanford Site. Because the water that circulated through the water purification pools (K Pools) and associated sand filters was clean river water, there is little chance of the structures being radioactively contaminated. To date, separate K Pools have been used for raising a variety of cold water fish species, including white sturgeon and fall chinook salmon, as well as for providing potable water to the 100 K Area of the Hanford Site for fire and service water purposes. | D,P | G,Z,C | Y,S | A | NO | NO |
| WHC-SD-CP-ES--10 | n/a | 100-K | 100-KR-2 | 6/1/1990 | FV ROECK | ENVIRONMENTAL IMPACT OF KE BASIN OPERATION | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0057/E0016662/0016662%20-%20[1007140494].PDF | Environmental & Occupational Safety has summarized the evaluations that have been performed of the environmental impact of operation of the KE Fuel storage basin. The attached report provides a synopsis of these evaluations. | D, H, P | G, Z | Y | A | NO | NO |
| WHC-SD-EN-AP-082 | Rev 0 | 100-K, 100-N | 100-K, 100-N | 1995 JAN | Enghusen, M.B. ; Go | Alternatives for the disposition of | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=18&osti_id=10120598&Row=12 | This document provides an evaluation of five alternatives for the disposition of 3.4 metric tons of irradiated fuel from PUREX to support facility turnover following deactivation. The alternatives for disposition of the fuel include transfer to the K Basins, transfer to T Plant, passivation and dry vault storage, and dissolution and underground tank storage. The five alternatives were compared and it was determined that the fuel should be transferred from PUREX to the K Basins where it would be placed into pool storage. | D,P | | Y | | YES | YES |
| WHC-SD-EN-AP-082 | REV 0 | 100-K | 100-KR-4 | 1992 APR | JW ROBERTS WHC | DESCRIPTION OF WORK FOR 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0039/D196092864/D196092864_8689_14.pdf | This description of work details the field activities associated with cable-tool drilling of groundwater wells in the 100-KR-4 Operable Unit (Task 6) and will serve as a field guide for those performing the work. | D | G | | | NO | NO |
| WHC-SD-EN-AP-082 | REV 1 | 100-K | 100-KR-4 | 1992 MAY | JW ROBERTS WHC | DESCRIPTION OF WORK FOR 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196094444/D196094444_8909_17.pdf | This description of work details the field activities associated with cable-tool drilling of groundwater wells in the 100-KR-4 Operable Unit (Task 6) and will serve as a field guide for those performing the work. | D | G | | | NO | NO |
| WHC-SD-EN-AP-082 | REV 2 | 100-K | 100-KR-4 | 1992 JUL | JW ROBERTS WHC | DESCRIPTION OF WORK FOR 100-KR-4 GROUNDWATER OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196103543 | This description of work details the field activities associated with cable-tool drilling of groundwater wells in the 100-KR-4 Operable Unit (Task 6) and will serve as a field guide for those performing the work. | D | G | | | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHC-SD-EN-AP-083 | REV 0 | 100-K | 100-KR-1 | 1992 JUL | WE GREEN WHC | DESCRIPTION OF WORK FOR VADOSE DRILLING IN 100-KR-1 OU | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0038/D196103521/D196103521_9687_17.pdf | This description of work details the field activities associated with cable-tool drilling of four vadose boreholes and backhoe excavation of four test pits in the 100-KR-1 Operable Unit (Task 5) and will serve as a field guide for those performing the work. | D | G | | | NO | NO |
| WHC-SD-EN-TI--229 | REV 1 | 100-K | 100-KR-1 | 1992 SEPT | WE GREEN WHC | DESCRIPTION OF WORK FOR VADOSE DRILLING IN 100-KR-1 OU | http://www5.hanford.gov/arpir/?content=detail&AKey=D196107585 | This description of work details the field activities associated with cable-tool drilling of four vadose boreholes and backhoe excavation of four test pits in the 100-KR-1 Operable Unit (Task 5) and will serve as a field guide for those performing the work. | D | G | | | NO | NO |
| WHC-SD-EN-TI--230 | | 100-K | 100-K | 1994 NOV | Mitchell, T.H. | Geophysical survey for proposed borehole 199-K-107A, 100-K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=0&osti_id=10105344&Row=14 | The objective of the survey was to locate subsurface obstructions that may affect the drilling of proposed borehole, 199-K-107A, located about 100 ft northwest of the 105 KW Building, 100-K Area. Based upon the results of the survey, possible drill sites within the zone, with the least likelihood of encountering identified obstructions, were identified. Initially, the proposed borehole was staked at N130/E122. The new proposed borehole location is N139/E176. This location appears free of anomalies and is over 10 ft from interpreted linear anomalies/pipe-like features | D,H | G, E | | | NO | NO |
| WHC-SD-EN-TI-239 | Rev 0 | 100-K | 100KR-1, KR-2, KR-4 | 1994, Feb | Carpenter, RW | 100-K Technical Baseline Report | http://idmsweb.rl.gov/idms/livelink.exe/fetch/2000/18814/1081672/140138990/145203472/145109197/145109198/142845686/WHC-SD-EN-TI-239_-_Rev_00.pdf?nodeid=64808842&vernum=6 | This document provides a technical baselin of wastesites located at the 100-K Area The report is baseed on ane environmental investigation undertaken by the WHC History Offic in support of the env. Restoration Engineering Funcion and on review and evaluation of numerous Hanford Site curent and historical reports, drawings and photographs, supplemented by site inspections and employee interviews. | | | | | | |
| WHC-SD-EN-TI--253 | | 100-K | 100-K | 1994 JUL | Mitchell, T.H. | Geophysical survey for proposed borehole 199-K-106A, 100-K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=10169475&Row=2 | The objective of the survey was to locate subsurface obstructions that may affect the drilling of proposed borehole, 199-K-106A, about 50 ft east of the 1,714 KW Building, 100-K Area. Based upon the results of the survey, possible drill sites within the zone, with the least likelihood of encountering identified obstructions, were identified. | D,P | G,E | | A | NO | NO |
| WHC-SD-EN-TI-280 | Rev. 0 | 199-K-109A 199-K-110A 199-K-111A 100-K | 199-K-109A 199-K-110A 199-K-111A 100-K | 1995 JAN | Mitchell, T.H. | Geophysical survey for proposed boreholes, 199-K-109A, 199-K-110A, and 199-K-111A, 100K Area | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10116117&Row=3 | A survey was conducted to locate subsurface obstructions that may affect the drilling of three proposed boreholes in the 100K Area. Drill sites with the least likelihood of encountering obstructions were identified by the method of ground-penetrating radar. These results are presented in this document. | D,P | G,Z,E,T | | A | NO | NO |
| WHC-SD-EN-TI--280 | REV. 0 | 100-K | 100-K | 1994 AUG | Peterson, R.E. | Groundwater Monitoring Results for the IO0-K Area, Fuel Storage Basins'. January I to March 31, 199 | http://www.osti.gov/bridge/purl.cover.jsp?purl=/10180547-fP3zfP/native/ | This report describes the results of groundwater monitoring being conducted t **o** s | D,H | G,Z,T | Y,S,X | A | M | NO |
| WHC-SD-N040-ES-001, | | 100-KE, 100KW | 100-KE, 100KW | 1994 AUG | R. E. Peterson | Groundwater monitoring results for the 100-K Area fuel storage basins: January 1 to March 31, 1994 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=3&page=2&osti_id=10180547&Row=2 | Fuel storage basins associated with the 105-KE and 105-KW reactor buildings are currently being used to store irradiated fuel rods from past operations. Each reactor building contains a basin that holds approximately 1.3 million gal of water. Tritium cannot be removed by these methods and is present in K-East basin water at a concentration of several million pCi/L. In contrast, K-West basin, where only fully encapsulated, undamaged fuel is stored, exhibits tritium concentrations at much lower levels--several hundred thousand pCi/L. Given sufficiently high leakage rates, and/or a preferential pathway for downward migration through the soil column, basin water may contaminate groundwater flowing beneath the basins. | D,P | H | Y,S,X | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHC-SD-SNF - CR-002 | Rev. 0 | K Basins KW, KE, 105KW | K Basins KW, KE, 105KW | 2009 Dec | B.H. Johnson | SPENT FUEL CONSOLIDATION IN THE lO5KW BUILDING FUEL STORAGE BASIN | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=36&osti_id=10186145&Row=11 | This study is one element of a larger engineering study effort by WHC to examine the feasibility of irradiated fuel and sludge consolidation in the KW Basin in response to TPA Milestone (target date) M-34-00-T03. The study concludes that up to 11,500 fuel storage canisters could be accommodated in the KW Basin with modifications. These modifications would include provisions for multi-tiered canister storage involving the fabrication and installation of new storage racks and installation of additional decay heat removal systems for control of basin water temperature. The ability of existing systems to control radionuclide concentrations in the basin water is examined. The study discusses requirements for spent nuclear fuel inventory given the proposed multi-tiered storage arrangement, the impact of the consolidated mass on the KW Basin structure, and criticality issues associated with multi-tiered storage | D,H,P | | Y,S,X | A | Yes | Yes |
| WHC-SD-SNF-CR--001 | REV. 0 | 109KE K-Basins | 109KE K-Basins | 1994 OCT | M.W.B. Strehlow | Design Criteria Document Project W-405 Maintenance Shop/Support Facility | http://www.osti.gov/bridge/purl.cover.jsp?purl=/10118447-tHjuUQ/webviewable/ | This Design Criteria Document provides the criteria for design and construction of maintenance shop/support facility modifications for the 109KE building that are essential to protect the safe operation and storage of spent nuclear fuel in the K-Basin facilities. | D,H | | S,X | | Yes | Yes |
| WHC-SD-SNF-EDL--001 | Rev.0 | 100-K | 100-K | 1994 DEC | Hoyle, J.R. | Design criteria document, electrical system, K-Basin essential systems recovery, Project W-405 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10117034&Row=15 | This Design Criteria Document provides the criteria for design and construction of electrical system modifications for 100K Area that are essential to protect the safe operation and storage of spent nuclear fuel in the K-Basin facilities. | | | | | | |
| WHC-SD-SNF-ER--003 | Rev. 0 | 105-KW, 105KE | 105-KW, 105KE | 1994 Dec | Langevin, M.J. | Interim essential and support drawing list for K Basins | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=4&osti_id=10114600&Row=16 | This document presents a list of essential and support drawings that have been identified as required to achieve the mission objectives of K Basin and is an integral part of the in-progress K Basins system base lining effort. The drawings listed in the appendix are those drawings required to safely operate K Basins. These drawings will be authenticated through the field verification and design reconstitution programs to ensure that these identified drawings are consistent with design requirements. | D,P | G,E | | A | NO | NO |
| WHC-SD-SNF-HC--001 | | 100-K | 100-K | 2004 Sept | Beaver, T.R. ; Cramer, E.R. ; Hinman, C.A. | K-West and K-East basin thermal analyses for dry conditions | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=1&osti_id=10189597&Row=17 | Detailed 3 dimensional thermal analyses of the 100K East and 100 K West basins were conducted to determine the peak fuel temperature for intact fuel in the event of a complete loss of water from the basins. Thermal models for the building, an array of fuel encapsulation canisters on the basin floor, and the fuel within a single canister are described along with conservative predictions for the maximum expected temperatures for the loss of water event. | D,P | | | A/M | NO | NO |
| WHC-SD-SNF-HC--002 | Rev.0 | 105-KW, 105KE | 105-KW, 105KE | 1994 Nov | Alwardt, L.D. | Hazard categorization of 100K east and 100K west in-basin fuel characterization program activities | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10115338&Row=12 | This report documents the determination that the in-basin activities at 105 K East (KE) and 105 K West (KW) on the Hanford Reservation associated with the fuel characterization program are classified as Hazard Category 3 (hazard analysis shows the potential for only significant localized consequences). Potential accident consequences, a description of significant activities around the site, and hazard identification and management were explored. | D | | Y | A | NO | NO |
| WHC-SD-SNF-HC--002 | | 105-KW, 105KE | 105-KW, 105KE | 1994 Dec | Porten, D.R. | K Basins fuel encapsulation and storage hazard categorization | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=7&osti_id=10116877&Row=11 | This document establishes the initial hazard categorization for K-Basin fuel encapsulation and storage in the 100 K Area of the Hanford site. The Hazard Categorization for K-Basins addresses the potential for release of radioactive and non-radioactive hazardous material located in the K-Basins and their supporting facilities. | D | P | S | M | NO | NO |
| WHC-SD-SNF-PD--001 | Rev.1 | 105-KW, 105KE | 105-KW, 105KE | 1995 Feb | Alwardt, L.D. | Hazard categorization of 100K East and 100K West in-basin fuel characterization program activities. Revision 1 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=39148&Row=7 | This report provides a hazard categorization of the 105 K East and 105 K West in-basin activities associated with the fuel sampling and transport preparations. It is limited to those characterization activities performed in the 105 KE and 105 KW fuel storage basin structures. The methodology of DOE standard DOE-STD-10227-92 is used. The report documents the determination that the in-basin activities associated with the fuel characterization program are classified as Hazard Category 3. | D | | Y | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHC-SD-SNF-SA--002 | Rev. 0 | 105-KE | 105-KE | 1994 Oct | Crystal, J.B. | 105-KE basin pilot run relocation | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=11&osti_id=10192821&Row=20 | The purpose of this document is to present the bases for selecting the exact in-facility location for installation of process equipment to support pilot testing activities in the 105-KE Basin at the United States Department of Energy (U.S. DOE) Hanford Site, in south eastern Washington State. | D,H,P | | Y | A | NO | NO |
| WHC-SD-SNF-SM--004 | Vol.1 | 105-KW, 105KE | 105-KW, 105KE | 1996 MAR | Winkel, B.V. ; Kanjilad, S.K. | Seismic evaluation of K basin bridge cranes (HOI-320 & HOI-418) and supporting structure | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=481438&Row=18 | The purpose of this report is to address the adequacy of the K Basin bridge cranes to resist a seismic-induced fall. The approach used to demonstrate adequacy against falling, was to evaluate the crane structural components relative to requirements specified in ASME NOG-1, Rules for Construction of Overhead and Gantry Cranes. Seismic adequacy of the mechanical hoist equipment is not addressed in this report. | D,H,P | | | A | YES | NO |
| WHC-SD-SNF-TA--002 | | 100-K, 183-K | 100-K, 183-K | 1995 Sept | Hunacek, G.S. | Title 183 KE Potable water system analysis plan | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=5&osti_id=263958&Row=6 | Sampling analysis plans (SAP) are a recognized manner of providing applicable requirements for conducting media sampling and analysis in a manner consistent with prescribed objectives. This SAP has been prepared to satisfy the data quality objectives listed in this SAP with respect to the operation of the 183 KE potable water for K Area. | D,P | | | A | NO | NO |
| WHC-SD-SNF-TA--005 | | 105KE, 105KW | 105KE, 105KW | 1995 Jan | Alwardt, L.D. | Unreviewed safety question evaluation of 100K East and 100K West in-basin fuel characterization program activities | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10114603&Row=11 | The purpose of this report is to provide the basis for answers to an un-reviewed Safety Question (USQ) safety evaluation of the 105K East (KE) and 105K West (KW) in-basin activities associated with the fuel characterization program as described in the characterization shipping plan. The significant activities that are common to both 105 KE and 105 KW basins are the movement of canisters from their main basin storage locations (or potentially from the 105 KE Tech View Pit if a dump table is available) to the south load out pit transfer channel. | D,P | G,Z,E | Y,S | A | NO | NO |
| WHC-SD-SNF-TP--013 | | 105-KW<br>105-KE<br>183-KW | 105-KW<br>105-KE<br>183-KW | 1995 Jan | Dodd, E.N. Jr. | Safety evaluation -- Spent water treatment system components inventory release | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10118619&Row=18 | As a result of the accumulation of this waste, the question has arisen regarding the consequences of potential releases of the inventory of radionuclides in these waste items relative to the K Area safety envelope. The purpose of this paper is to address this question. | D | Z | X | A | NO | NO |
| WHC-SD-W405-CR--001 | | 100-K | 100-K | 1995 Mar | Meling, T.A. | Test plan for K Basin Sludge Canister and Floor Sampling Device | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=42649&Row=2 | This document provides the test plan and procedure forms for conducting the functional and operational acceptance testing of the K Basin Sludge Canister and Floor Sampling Device(s). These samplers samples sludge off the floor of the 100K Basins and out of 100K fuel storage canisters. | D,H,P | | | A | NO | NO |
| WHC-SD-W405-PD--002 | | 105-KW<br>105-KE<br>190-KE | 105-KW<br>105-KE<br>190-KE | 1994 Dec | Johnson, B.H. | Design criteria document, Fire Protection Task, K Basin Essential Systems Recovery, Project W-405 | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10118498&Row=16 | In April 1994, Project W-405, K Basin Essential Systems Recovery, was established to address (among other things) the immediate fire protection needs of the 100-K Area. The purpose of Project W-405`s Fire Protection Task is to correct Life Safety Code (NFPA 101) non-compliances and to provide fire protection features in Buildings 105KE, 105KW and 190KE that are essential for assuring the safe operation and storage of spent nuclear fuel at the 100K Area Facilities` Irradiated Fuel Storage Basins (K Basins). | D | Z | | A | NO | NO |
| WHC-SO-GN-ER-30036 | Rev. 0 | 100-K | 100-K | 1994 OCT | Johnson, B.H. | Tech assist/fire safety assessment of 100K area facilities | http://www.osti.gov/bridge/product.biblio.jsp?query_id=7&page=0&osti_id=10195730&Row=4 | This assessment's purpose is to assess comprehensively the risk from fire within each facility, in relation to existing or proposed fire protection features, and to identify the recommended fire protection upgrades for each facility. The assessment shall evaluate the construction, occupancy, fire protection features and the housekeeping for each facility with respect to the fire protection requirements of DOE Orders, NFPA Codes and Standards and recognized industrial practice. | D,H | Z | Y | A | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WK-SO-SNF-DP-002 | Rev. 0 | 100-K Area K Basin | 100-K Area K Basin | 1996 Feb | S . P. Reidel and C . J. Moore | Hanford site seismic monitoring instrumentation plan | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=43&osti_id=483405&Row=5 | This document provides a plan to comply with the seismic monitoring provisions of US DOE Order 5480.28, Natural Phenomena Hazards. The existing Hanford seismic monitoring network is designed to detect, locate, and determine earthquakes with magnitudes as low as 1.5 or less. Although the network has only operated for less than 30 years. the largest earthquake recorded at Hanford in that time is less than a magnitude of 4.0 with most seismic events less than magnitude 3.0. These events have been demonstrated to be of no consequence to life, safety, or the safe function of PC-2, PC-3, and PC-4 SSCs. The Hanford seismic monitoring network is made up of primarily vertical sensors that cannot characterize seismic time histories for use in future evaluations of sscs. | D,H,P | G,T | S | A | No | NO |
| WMP-27726 | Rev. 0 | 100-KR-2 | 100-KR-2 | 1995 NOV | George L. Miller | 105-K EAST SANDFILTER BACKWASH LINE SAMPLE ANALYSIS REPORT FIRST CAMPAIGN | http://www5.hanford.gov/arpir/?content=findpage&AKey=D295186480 | This project seeks to produce uranium (U) and plutonium(Pu)analyses of samples taken from the KE basin filter backwash line each time the sand filter is backwashed. K Basin operations will use the analytical results to estimate additions of fissile materials to the backwash sludge pit and thereby maintain a running inventory in the pit. The samples were treated according to the Letter of Instruction (LOI), Reference 4.1.<br>The first campaign of this project consisted of three samples, numbered by the customer 153KEB, 154KEB, and 155KEB. | | | | | | |
| WR116^G^/ Z | REV 0 | 100-K | 100-KR-4 | 2005 OCT | FH | BOREHOLE SUMMARY REPORT FOR WELLS 199-K-133 199-K-134 199-K-135 AND 199-K-136 FY 2005 | http://www5.hanford.gov/pdw/fsd/AR/FSD0001/FSD0048/DA01291447/DA01291447_58785426_79202_63.pdf | This report presents field-generated records and summarizes field activities during the drilling and construction of four new injection wells, (199-K-133 through 199-K-136), to support the planned treatability test for fixation of chromium in the groundwater at the 100-K Area. The purpose of this document is to compile and archive records, observations, and measurements associated with the constructionof the four wells. This borehole summary report includes documentation of the drilling, well completion activities, and sample collection | D | G,Z | Y,S,X | | NO | NO |
| WSRC-RP-90-396 | | 100-K | 100-K | 2002 MAR | M. J. Hartman<br>L. F. Morasch<br>W. D. Webber | HANFORD SITE GROUNDWATER MONITORING FOR FY 2001 [SECTION 2 OF 2] | http://www5.hanford.gov/arpir/?content=findpage&AKey=D2740450 | This report is part 2 of the results of groundwater and vadose zone monitoring and remediation for fiscal year 2001, on the U.S. Deparment of Energy's Hanford Site, Washington. | D,H,P | G,Z,C,E | Y,S,X,P | A,M | Yes | Yes |
| WSRC-TR-2000-00206 | | 100-K | 100-K | 1990 May | Morrison, J.M. ; Loibl, M.W | Summary report for 1990 inservice inspection (ISI) of SRS 100-K reactor tank | http://www.osti.gov/bridge/product.biblio.jsp?query_id=6&page=1&osti_id=5780052&Row=20 | The purpose of this inspection was to determine if selected welds in the K Reactor tank wall contained any indications of IGSCC. These portions included areas in and beyond the weld HAZ, extending out as far as two to three inches from the centerline of the welds, plus selected areas of base metal at the intersection of the main tank vertical and mid-girth welds. No evidence of such degradation was found in any of the areas examined. | D,P | | | A | NO | NO |
| WSRC-TR--92-90; SRL-MTS--9220041 | | HANFORD SITE | HANFORD SITE | 2000 AUG | Chen, K.F. | Flood Hazard Recurrence Frequencies for A-, K- and L-Areas, and Revised Frequencies for C-, F-, E-, S-, H-, Y- and Z-Areas | http://sti.srs.gov/fulltext/tr2000206/tr2000206.html | Department of Energy (DOE) Order 420.1, Facility Safety, outlines the requirements for Natural Phenomena Hazard (NPH) mitigation for new and existing DOE facilities. The NPH considered in this report is flooding. This report presents the methods used to determine the probabilistic flood elevation curves for A-, K-, C-, F-, E-, H-, S-, Y-, Z- and L-Areas.-90 (100-N) reaching the Columbia River. | D,H | Z,C | | A | NO | NO |
| | | 100 | 100-HR-3<br>100-KR-4<br>100-BC-5 | 1997 Sept | AC TORTOSO, DOE-RL | 100 AREA RIVERBANK SEEPAGE SAMPLING RESULTS FY 1997 | http://www5.hanford.gov/arpir/?content=findpage&AKey=D197268361 | Riverbank seepage sampling in the 100-BC-5, 100-KR-4, and 100-HR-3 Operable Units was conducted between October 28 and November 6, 1996 by Environmental Restoration Contractor (ERC) personnel. Samples included riverbank seepage water and fine-grained sedimentary material associated with the seepage. The sampling event is pa rt of remedial investigations for the Operable Units and complements the performance monitoring activities that are associated with the Interim Remedial Measure (IRM) for chromium contamination. Other COC include nitrate, gross alpha, gross beta, strontium-90, technetium-99, tritium, and uranium | | | Y, P | A | NO | NO |
| | | 100-K | 100-K | 1992 Feb | Leader, D.R. | Safety rod latch inspection | http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=11&osti_id=10166510&Row=16 | During an attempt to raise control rods from the 100 K reactor in December, one rod could not be withdrawn. Subsequent investigation revealed that a small ``button`` in the latch mechanism had broken off of the ``lock plunger`` and was wedged in a position that prevented rod withdrawal. | D,H | | | M | NO | NO |

| Document # | Rev./Draft/ Vol. | Area | Operable Unit | Date | Authors/ Originator | Title | Link | Summary | Background Site | Physical Setting | Contaminant Description | Analysis and Modeling | Risk Assessment | Alternatives Development |
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| | | | | 1996, December | Martin, Wayne J | Integration of Risk Analysis and Sorption Studies in the Subsurface Transport of Aqueous Carbon-14 at the Hanford Site | PhD Dissertation, Washington State University | Abstract - Risk analysis and sorption come face-to-face with the input parameterss used in risk assessments. The sorption input parameter (Kd) has proven to be important in evaluating migration of contaminanats in soil environments. This study demonstrated the importance of Kd, provided an appraoch for evaluating its impact on risk, and provided kd data for C-14 for a specific waste disposal problem. | | | | | | |