INEEL/EXT-03-01008

2003 Idaho National Engineering and Environmental Laboratory Shallow Injection Well Verification and Status Report

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Idaho National Engineering and Environmental Laboratory
Bechtel BWXT Idaho, LLC

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Idaho National Engineering and Environmental Laboratory
Idaho Falls, Idaho 83415

Prepared for the
U.S. Department of Energy
Assistant Secretary for Environmental Management
Under DOE Idaho Operations Office
Contract DE-AC07-99ID13727

ABSTRACT

A detailed verification of the shallow injection well inventory for Bechtel BWXT Idaho, LLC and Argonne National Laboratory-West-operated facilities was performed in 2003. Fourteen wells, or 20%, were randomly selected for the verification. This report provides updated information on the 14 shallow injection wells that were randomly selected for the 2003 verification. Where applicable, additional information is provided for shallow injection wells that were not selected for the 2003 verification. This updated information was incorporated into the 2003 Shallow Injection Well Inventory. Sixty-eight wells were removed from the 2003 Shallow Injection Well Inventory.

CONTENTS

TABLES

2003 Idaho National Engineering and Environmental Laboratory Shallow Injection Well Verification and Status Report

1. INTRODUCTION

A detailed verification of the shallow injection well (SIW) inventory for Bechtel BWXT Idaho, LLC (BBWI) and Argonne National Laboratory-West (ANL-W)-operated facilities was performed in 2003. Fourteen wells, or approximately 20%, were randomly selected for the verification. In addition, facility personnel were requested to review the SIW Inventory information for the wells not included in the more detailed verification and provide updated information as applicable.

The November 21, 2000, SIW Inventory (Graham 2000) submitted to the Idaho Department of Water Resources (IDWR) was used as the basis document. This was considered the most accurate and current inventory information available. The verification process is discussed in the following sections.

2. WELLS REMOVED FROM INVENTORY

Specific wells were proposed for removal from the SIW Inventory (Graham 2000, Guymon 2003). The wells proposed for removal were determined to be either permanently abandoned, would be permanently abandoned, duplicate listings, or did not meet the definition of a shallow injection well. These proposals were submitted and approved by IDWR (Van Hoff 2000, Duncan 2003). Sixty-eight wells were removed from the 2003 INEEL SIW Inventory (Table 1).

The 68 SIWs identified in Table 1 were not included in the 20% of the wells verified. The remaining wells on the SIW Inventory were listed numerically. The numbers were entered into a random number-generating program, and 14 wells (20%) were selected. Table 2 lists the 14 wells selected for follow-up verification.

Table 1. Wells removed from the 2003 INEEL Shallow Injection Well Inventory.

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name
3- ANL	82	None	ANL-757-1 (Well identified as “ANL-757 Valve Pit 1”)
4-ANL	83	None	ANL-757-2 (Well identified as “ANL-757 Valve Pit 2”)
5-ANL	84	None	ANL-757-3 (Well identified as “ANL-757 Valve Pit 3”)
6-ANL	85	None	ANL-757-4 (Well identified as “ANL-757 Valve Pit 4”)
9-ANL	None	None	ANL-769 (Well identified as “Dangerous Material Storage Bldg. 769”
14-ANL	None	ANL-10	ANL-T-1-ZPPR (Well identified as “SIW for Demolished Bldg. T-1 and ZPPR”)
ANL	None	None	ANL-24
1-ARA	36	ARA-17	ARA-626
1-CFA	36	CFA-07	CFA 633
2-CFA	35	None	CFA 640E
3-CFA	28	None	CFA 664 A
4-CFA	29	None	CFA 664 B
5-CFA	30	None	CFA 664 C
6-CFA	49	None	CFA 666 A
7-CFA	50	None	CFA 666 B
8-CFA	31	CFA-15	CFA 674
9-CFA	None	CFA-16	CFA 682
	37		
10-CFA	None	CFA-12	CFA 690 A
11-CFA	None	CFA-12	CFA 690 B
12-CFA	None	None	EBR-1-WP (Well identified as “EBR1”)
13-CFA	None	CFA-50	CFA-654
1-CPP	51	CPP-45	CPP-621-1 (Well identified as “CPP-621”)
2-CPP	52	CPP-45	CPP-621-2 (Well identified as “CPP-621”)

Table 1. (continued).

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name
3-CPP	53	CPP-45	CPP-621-3 (Well identified as “CPP-621”)
5-CPP	55	CPP-45	CPP-621-5 (Well identified as “CPP-621”)
6-CPP	56	CPP-45	CPP-621-6 (Well identified as “CPP-621”)
7-CPP	57	CPP-39	CPP-639 (Well identified as “CPP-639 DI-PW-SB”)
8-CPP	58	CPP-48	CPP-48 (Well identified as “CPP-48 SI-PW-SB”)
9-CPP	59	CPP-01	CPP-740-1 (Well identified as “CPP-740”)
10-CPP	60	CPP-01	CPP-740-2 (Well identified as “CPP-740”)
14-CPP	None	None	CPP-621-7 (Well identified as “CPP-621 FD-PW-SB”)
18-CPP	None	None	CPP-607 (Well identified as “CPP-607 FD-SC-AG”)
24-CPP	80	None	CPP-IDHW-80
ICPP	None	CPP-25	CPP-IDHW-63
ICPP	None	CPP-26	CPP-IDHW-64
ICPP	68	None	CPP-IDHW-68
ICPP	70	None	CPP-IDHW-70
ICPP	73	None	CPP-IDHW-73
ICPP	74	None	CPP-IDHW-74
ICPP	80	None	CPP-IDHW-80
33-CPP	None	CPP-110	CPP-607S
CPP	None	None	CPP-48B
1-PBF	39	None	PBF619 HEV-1
2-PBF	None	None	PBF-619 HEV-2
	40[a]		
	41[b]		
3-PBF	None	None	PBF-632
6-PBF	None	None	PBF-626
7-PBF	40	None	PBF-IDHW-40
8-PBF	41	None	PBF-IDHW-41
9-PBF	42	None	PBF-IDHW-42
10-PBF	43	None	PBF-626
1-RWMC	45	None	WMF-611
2-RWMC	46	None	SWEPP
3-RWMC	47	None	ASWS-2A
4-RWMC	48	None	ASWS-2B
3-TAN	3	TSF-36	TAN-603
4-TAN	4	TSF-25	TAN-609A
5-TAN	5	TSF-35	TAN 609 B

Table 1. (continued).

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name
1-TRA	8	None	TRA FD1
2-TRA	9	None	TRA FD2
3-TRA	10	None	TRA FD3
4-TRA	11	None	TRA FD4
8-TRA	16	None	TRA FD8
12-TRA	20	TRA-11	TRA FD12
16-TRA	24	None	TRA FD16
17-TRA	25	None	TRA FD17

a. This well is the same as 7-PBF and will be removed from the 2003 SIW Inventory.

b. This well is the same as 8-PBF and will be removed from the 2003 SIW Inventory.

Table 2. Wells selected for annual 20% verification of the SIW Inventory.

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	Status	Function
25-ANL	None	None	ANL-27	Active	Dispose of rainwater
26-ANL	None	None	ANL-28	Active	Rainwater
20-CPP	76	CPP-105	CPP-701-A (Well identified as "CPP-701-A SI-AT-SB and MAH-FOS-HS-F5")	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.
CPP	None	None	CPP-1606B	Active	Drywell for warehouse floor drains and condensate discharge from HV units located in CPP-1606.
3-IRC	89	None	IF-603C	Active	Roof drain and cooling water and condensate from air compressors
6-IRC	92	None	IF-602B	Active	Precipitation collection from roof drain
4-PBF	44	None	PBF-609	Temporarily abandoned	Surface runoff disposal
5-PBF	None	None	PBF-622	Temporarily abandoned	Once received drainage from floor drain
6-TAN	None	None	TAN 614	Active	Fire pump test packing gland potable water runoff
6-TRA	13	None	TRA FD6	Active	Fire sprinklers drainage
14-TRA	22	None	TRA FD14	Temporarily abandoned	Steam condensate drain
15-TRA	23	None	TRA FD15	Inactive	Steam condensate drain
18-TRA	26	None	TRA FD18	Active[a]	Steam condensate drain
21-TRA	29	None	TRA FD21	Inactive	Steam condensate drain

a. Status of 18-TRA changed to permanently abandoned in the 2003 SIW Inventory based on information obtained during the verification process.

3. VERIFICATION OF RANDOMLY SELECTED SHALLOW INJECTION WELLS

The following sections provide updated information on the SIWs that were randomly selected for the 2003 verification. Where applicable, additional information is provided for SIWs that were not selected as part of the 2003 20% verification process. This updated information was incorporated into the 2003 SIW Inventory (Appendix A).

3.1 Argonne National Laboratory-West

Wells 25-ANL and 26-ANL were inspected with Argonne National Laboratory-West (ANL-W) personnel. Information in the SIW Inventory for both wells is correct. The wells are still active and used for disposal of rainwater.

In addition to the two randomly selected wells, wells 3-ANL, 4-ANL, 5-ANL, 6-ANL, and 9-ANL were also inspected. These five wells were identified in the November 21, 2000, SIW Inventory (Graham 2000) as abandoned with abandonment (sealed with bentonite or concrete) expected to be completed by December 31, 2000. Work request #511913 indicated wells 3-ANL, 4-ANL, 5-ANL, and 6-ANL were sealed with bentonite. The work was completed on November 1, 2000. Work request #511900 indicated approximately 1 foot of gravel was excavated from well 9-ANL and the casing filled with cement. This work was completed on December 4, 2000. Visual inspection revealed these wells have been sealed. These 5 wells were removed from the 2003 SIW Inventory.

ANL-W personnel requested that the action date for wells 1-ANL and 16-ANL be changed from September 30, 2001 to September 30, 2004. The dates were changed in the 2003 SIW Inventory (Appendix A).

3.2 Idaho Nuclear Technology and Engineering Center

Wells 20-CPP and CPP-1606B were inspected/reviewed with Idaho Nuclear Technology and Engineering Center (INTEC) personnel. Well 20-CPP was visually inspected. This well is considered temporarily abandoned and will be evaluated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. Well CPP-1606B is buried 4 feet underground and therefore, could not be visually inspected. INTEC personnel provided drawings showing the construction and location of the well. This well is still considered active.

INTEC personnel provided the CERCLA and Federal Facility Agreement and Consent Order (FFA/CO) names for several wells and requested that these names be added to the appropriate wells in the 2003 SIW Inventory. These well names were added to the 2003 SIW Inventory.

Well 13-CPP was abandoned through the CERCLA process. The information in the 2003 SIW Inventory was modified to show this well was permanently abandoned and the method used to seal the well.

Recommendation: The IDWR should be contacted and notification made that this well has been permanently abandoned and should be removed from the inventory.

Two new wells were identified and added to the 2003 SIW Inventory. These are wells 34-CPP for CPP-697 and 35-CPP for CPP-1608. The top of the 34-CPP is approximately 4 feet underground and receives condensate discharge from CPP-697 heating and ventilation (H&V) units. The top of 35-CPP is

approximately 5 ft underground and receives condensate and air wash discharge from the CPP-1608 HVAC unit. Drawings were obtained that show the location of both SIWs.

Recommendation: Information concerning these two SIWs must be provided to IDWR in accordance with IDAPA 37.03.03.30.1.

3.3 INEEL Research Center

Wells 3-IRC and 6-IRC were inspected/reviewed with INEEL Research Center (IRC) personnel. Manhole covers with the word "SEWER" cover these and the other four IRC SIWs. Well 3-IRC receives precipitation from roof drainage and condensate. Well 6-IRC receives precipitation from roof drainage. Drawings were located that show the location and construction of these wells. Both SIWs are still considered active.

Recommendation: It is recommended that the manhole covers labeled "SEWER" for the IRC SIWs be replaced with unlabeled (no wording) manhole covers and that metal tags be attached to the covers identifying the specific SIW.

3.4 Power Burst Facility/Waste Reduction Operations Complex

Wells 4-PBF and 5-PBF were inspected/reviewed with Power Burst Facility/Waste Reduction Operations Complex personnel. The updated information in the 2003 SIW Inventory (Appendix A) is correct. For well 4-PBF, the 2003 SIW Inventory was updated to reflect the information in Guymon 2003. The status of well 5-PBF was changed from active to temporarily abandoned. The drain leading to the SIW has been plugged, and there are no plans to use the well.

Recommendation: The IDWR should be notified of the change in status for 5-PBF and in accordance with IDAPA 37.03.03.030.04 for both wells 4-PBF and 5-PBF prior to permanent abandonment.

Wells identified with only the IDWR record numbers of 40 and 41 in the November 21, 2000, inventory were determined to be duplicate listings of wells 7-PBF and 8-PBF, respectively. All four well listings were removed (see Table 1) from the 2003 SIW Inventory.

3.5 Test Area North

The SIW identified as 6-TAN was inspected. The use listed for well 6-TAN is for fire pump test packing gland potable water runoff. A red pipe (approximately 1 to 2 inches diameter) exits the west wall (about half way up) of building TAN-614. The pipe runs down the building wall and discharges onto a concrete pad (approximately 8 in. × 14 in.). The fire/potable water then drains onto the surrounding gravel. There is no hole or excavation currently associated with this discharge. The discharge onto the concrete pad does not meet the definition of a shallow injection well.

Recommendation: A request should be submitted to IDWR to remove this discharge from the 2003 SIW Inventory.

3.6 Test Reactor Area

Wells 6-TRA, 14-TRA, 15-TRA, 18-TRA, and 21-TRA were inspected/reviewed with Test Reactor Area (TRA) personnel. Building TRA-634 has four floor drains that flow to a SIW located on the

west side of TRA-634. Only three of the floor drains could be observed. The fourth floor drain was covered with stored parts (possibly reactor parts). The three drains that were visible had metal plates over the tops. However, the plates were not sealed, and liquid could enter the drains. The concern is that building TRA-634 is used to store low-level radioactively contaminated reactor parts. While most of the parts were covered with plastic or stored in wooden boxes, several parts appeared to be labeled as radioactively contaminated and left uncovered. If the fire sprinkler system was activated, it is likely that radioactive contamination could be discharged to the SIW.

Recommendation: It is recommended that TRA further evaluate their storage practices and potential to discharge radioactively contaminated fire water to the SIW and determine the regulatory status of the well.

The location description for well 14-TRA was changed from "North East" to "North West." Wording was added to state that the SIW is a 55-gallon steel drum.

For Wells 15-TRA and 21-TRA, the wording in the 2003 SIW Inventory was modified to reflect the more current information from the January 3, 2003 "INEEL Shallow Injection Well Evaluation and Abandonment Plan" (Guymon 2003). This information was verified correct during the inspection/review.

Well 18-TRA could not be located during the inspection/review. Documentation (E-mail note, E. J. Dal Lago to M. D. Lovejoy, 5/1/00) indicated this well could not be located during the 2000 SIW Inventory inspection/review. The status of the well was changed in the 2003 SIW Inventory from active to permanently abandoned. The IDWR has not been notified.

Recommendation: The IDWR should be contacted and notification made that this well has been permanently abandoned and should be removed from the inventory.

4. REFERENCES

Duncan, C. Idaho Department of Water Resources, to R. H. Guymon, "Response to INEEL Shallow Injection Well Abandonment Plan," January 21, 2003, CCN 39827.

Graham, J. F., INEEL, to S. D. Van Hoff, Idaho Department of Water Resources, November 21, 2000, "Idaho National Engineering and Environmental Laboratory (INEEL) Shallow Injection Abandonment Plan and Inventory Update," CCN 15473.

Guymon, R. H., INEEL to M. Piechowski, Idaho Department of Water Resources, January 3, 2003, "Idaho National Engineering and Environmental Laboratory (INEEL) Shallow Injection Well Evaluation and Abandonment Plan," CCN 35800.

IDAPA 37.03.03.030.04, "Inventory Information and Permit Requirements Class V Shallow Injection Wells, Permanent Abandonment," Idaho Administrative Procedures Act, Idaho Department of Water Resources.

IDAPA 37.03.03.030.1, "Inventory Information and Permit Requirements Class V Shallow Injection Wells, Authorization," Idaho Administrative Procedures Act, Idaho Department of Water Resources.

Van Hoff, S. D., Idaho Department of Water Resources, to J. F. Graham, INEEL, November 27, 2000, CCN 16314.

Appendix A

2003 Shallow Injection Well Inventory

2003 Shallow Injection Well Inventory

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
1-ANL	None	None	ANL-753	Floor drain for Plant Services	Inactive	Floor drain for water	Currently inactive, the future status of this SIW will be reevaluated	Evaluate further	09/30/04
2-ANL	81	None	ANL-755	East side of Fuel Oil Pump House Bldg. 755	Active	Steam condensate			
	86			ANL-W	Active	Cooling tower/steam condensate			
7-ANL	None	ANL-16	ANL-759-1 (Well identified as “Dry Well 1 at Fire Station, Bldg. 759”	North side of ANL-759	Active	Condensate from heating system-nonhazardous			
8-ANL	None	None	ANL-759-2 (Well identified as “Dry Well 2 at Fire Station Bldg. 759”)	West side of ANL-759	Active	Condensate from heating system-nonhazardous			
10-ANL	None	None	ANL-774 (Well identified as ”ZPPR Annex Stairwell Floor Drain, Bldg. 774”)	North side of Bldg. 774	Active	Rainwater			
11-ANL	None	None	ANL-791 (Well identified as “Ramp floor drain for IMF-Bldg. 791”)	Northwest side of Bldg. 759	Active	Rainwater			
12-ANL	None	None	ANL-793 (Well identified as “Sodium Components Maintenance Shop, Bldg. 793”)	Southeast corner of Bldg. 793	Active	Drinking fountain drain			

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
13-ANL	None	None	ANL-FOT (Well identified as "Steam Condensate SIW")	West of fuel oil tanks	Active	Steam condensate. It is uncertain as to whether this is state record number 86.			
15-ANL	None	None	ANL-770-C (Well identified as "Sodium Components Storage Bldg. 770-C")	Southwest of Bldg 770-C	Active	Water from fire protection testing			
16-ANL	None	ANL-17	ANL-720-1 (Well identified as "Mechanical Equipment room in TREAT Reactor, Bldg. 720")	Inside of Bldg. 720 on the east side	Inactive	Used in past for disposal of raw water and steam plant and boiler chemicals	Will remain on inactive status until a determination is made regarding reactor restart.	Evaluate further	9/30/04
17-ANL	None	None	ANL-720-2 (Well identified as "Bar room in TREAT Reactor, Bldg. 720")	Inside of Bldg. 720 in the center of bldg	Active	Condensate from air conditioning unit (demineralized water)			
18-ANL	None	None	ANL-710-1 (Well identified as "Electrical Manhole Drain for Bldg. 710"	Northeast of Bldg. 710	Active	Rainwater			
19-ANL	None	None	ANL-710-2 (Well identified as "Communications Manhole drain for Bldg. 710")	Northeast of Bldg. 710	Active	Rainwater			
20-ANL	None	None	None	At southeast corner of Bldg. 783	Active	Water from testing fire system			
21-ANL	None	None	ANL-23A	Inside Bldg. 793-C, east side	Active	Floor drain			
22-ANL	None	None	ANL-23B	Inside Bldg. 793-C, west side	Active	Floor drain			

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
23-ANL	None	None	ANL-25	South side stairwell of Bldg. 787	Active	Used to dispose of rainwater			
24-ANL	None	None	ANL-26	North side basement stairwell of Bldg. 752	Active	Used to dispose of rainwater			
25-ANL	None	None	ANL-27	South Interior courtyard stairwell of Bldg. 752	Active	Used to dispose of rainwater			
26-ANL	None	None	ANL-28	Near southwest corner of Bldg. 752	Active	Used to dispose of rainwater			
27-ANL	None	None	ANL-29	At southeast corner of north interior courtyard of Bldg. 752	Active	Used to dispose of rainwater			
4-CPP[a]	54	CPP-102	CPP-621-4 (Well identified as "CPP-621 SI-AT-HB")	South of CPP-621 Manhole cover. Just north of where CPP-607 existed. Concrete bottom with drain hole.	Temporarily abandoned	Used in past to discharge condensate used to steam trace a hydrofluoric acid pit.	Well was composed of a French drain system. This well (vault) has been temporarily abandoned (not in use, no plans to ever use). All piping leading to the condensate well was removed in the late 1980s. The well vault has been fitted with a manhole cover.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
11-CPP[a]	61	CPP-40	CPP-640 (Well identified as "CPP-40 SI-PW-SB")	Environmentally controlled area CPP-640, southwest of CPP-601	Temporarily abandoned	This French drain discharge pipe was part of the neutralization unit used to neutralize hydrofluoric acid and potentially other chemicals from CPP-601 by discharging waste from a drip pan through a drain pipe into a powdered-lime filled pit. The lime pit received hydrofluoric acid from around 1960 to 1967. Water may have been discharged to the pit through 1990.	This well is composed of a French drain system and has been temporarily abandoned. All pipes leading to the lime pit were removed in 1991-92. The pit was a fully enclosed concrete structure with a metal lid; discharge took place through an overflow line (discharge pipe). The well is currently covered with a metal lid. This well was included in the initial assessment of the "Lime Pit at the Base of CPP-601 Berm and French Drain" (CERCLA Site Code CPP-40). The Agencies have determined that Stie CPP-40 is a "No Action" site.	The shallow injection well has undergone CERCLA Investigation with a "No Action" determination. The shallow injection well will be permanently abanadoned in accordance with IDAPA 37.03.03.030.04. At the time of permanent abandonment, the shallow injection well will be plugged with bentonite grout, cement grout, concrete, puddling clay, or other impermeable material to prevent the upward or downward migration of fluids.[b]	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
12-CPP[a]	62	CPP-02	CPP-603-1 (Well identified as "CPP-603")	Located in or under the CPP-603	Temporarily abandoned	This French drain was used in CPP-603 as a building drain and potentially received radioactively contaminated basin water	This shallow injection well (French drain) is temporarily abandoned. This French drain was abandoned and partially excavated in 1966. The Graphite Fuel Storage Building, an addition to CPP-603, was built over this site. The drain was included in the initial assessment of the "French Drain West of Building CPP-603" (CERCLA Site Code CPP-02). The Agencies have determined that Site CPP-02 is a RD/RA site.	This shallow injection well is covered under CERCLA Site CPP-02 which is undergoing RD/RA. The method of abandonment will be determined under the CERCLA process. The substantive requirements for abandonment of a shallow injection well as identified in IDAPA 37.03.03.030.04 will be met.	
13-CPP	65	None	CPP-663 (Well identified as "CPP-663 SI-SD-SB")	Northwest of CPP-663. Square grating top with soil bottom.	Permanently abandoned (listed as active in the 2000 inventory)	Surface runoff and steam condensate disposal	The CERCLA WAG-3 Tank Farm Interim Action abandoned this well in the summer of 2001. Abandonment was accomplished by filling the bottom with 12 inches of concrete and diverting the flow to the New Tank Farm storm water drainage system.	IDWR has not been notified that this well has been permanently abandoned. The IDWR should be contacted and notification made that this well has been permanently abandoned and should be removed from the inventory.	
15-CPP	69	None	CPP-604/649 (Well identified as "CPP-604/649 SI-SC-SB")	West of CPP-604/649. 1" pipe with the end buried in the ground.	Active	Steam condensate disposal			
16-CPP	71	None	CPP-1606 (Well identified as "CPP-1606 SI-SD-SB")	South of CPP-1606. Rectangular grating (2'x1') in the bottom of the ramp. Connects to a seepage pit southeast of ramp.	Active	Surface runoff from truck ramp and warehouse floor drain disposal			
None[a]	None	CPP-103	MAH-CA-CT-319	North of CPP-665	Temporarily abandoned	Used for steam condensate disposal	The well received steam condensate from the heating and ventilation equipment located inside CPP-665 and was placed in inactive status during 2002. The manhole has been removed and backfilled with gravel.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
19-CPP[a]	75	CPP-104	CPP-701 (Well identified as "CPP-701 SI-AT-SB and MAH-FOS-FL-314")	South of CPP-701. Metal cover with a hinged door.	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.	This shallow injection well was temporarily abandoned in 1986. Due to a change in fuel type, the steam line was shut off and the condensate lines were removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
20-CPP[a]	76	CPP-105	CPP-701 (Well identified as "CPP-701-A SI-AT-SB and MAH-FOS-HS-F5")	Southwest of CPP-701-A. Concrete box with a metal lid.	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.	This shallow injection well was temporarily abandoned in 1986. Due to a change in fuel type, the steam line was shut off and the condensate lines were removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
21-CPP[a]	77	CPP-106	CPP-701-B-1 (Well identified as "CPP-701-B FD-AT-SB Dry Well")	Northwest of CPP-701-B. Well is galvanized metal with metal top.	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.	This shallow injection well was temporarily abandoned in 1986. Due to a change in fuel type, the steam line was shut off and the condensate lines were removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
22-CPP[a]	78	CPP-107	CPP-701-B-2 (Well identified as "CPP-701-B SI-AT-SB Dry Well")	Southwest of CPP-701-B. Well is galvanized metal with metal top.	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.	This shallow injection well was temporarily abandoned in 1986. Due to a change in fuel type, the steam line was shut off and the condensate lines were removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
23-CPP[a]	79	CPP-108	CPP-701-B-3 (Well identified as "CPP-701-B FD-AT-SB Dry Well")	Southeast of CPP-701-B. Well is galvanized metal with a metal top.	Temporarily abandoned	Steam condensate disposal. Passive fuel oil contamination resulting from leaks, spills, etc.	This shallow injection well was temporarily abandoned in 1986. Due to a change in fuel type, the steam line was shut off and the condensate lines were removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
27-CPP[a]	67	CPP-109	CPP-IDHW-67	Southwest of CPP-633, west of ECA-48 and former CPP-48 well (IDWR Well 58).	Temporarily abandoned	Discharge of steam condensate.	This shallow injection well has been temporarily abandoned. Piping leading to the well has been disconnected and grouted.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
CPP	None	None	CPP-1606B	North of CPP-1606	Active	Drywell for warehouse floor drains and condensate discharge from HV units located in CPP-1606.	Top of drywell is buried 4 feet underground		
34-CPP	None	None	CPP-697N	North of CPP-697	Active	Seepage pit for condensate discharge from CPP-697 HV units	Top of seepage pit is buried 4 feet underground	This existing shallow injection well has not been previously identified. Inventory information in accordance with IDAPA 37. 03.03.30.01 shall be provided to IDWR.	
35-CPP	None	None	CPP-1608S	South of CPP-1608	Active	Deep gravel pocket for condensate and air wash discharge from CPP-1608 HVAC unit	Top of the deep gravel pocket is 5 feet underground	This existing shallow injection well has not been previously identified. Inventory information in accordance with IDAPA 37. 03.03.30.01 shall be provided to IDWR.	
1-IRC	87	None	IF-603A	South center of IF-603	Active	Precipitation collection from roof drain			
2-IRC	88	None	IF-603B	Southwest corner of IF-603	Active	Precipitation collection from roof drain			
3-IRC	89	None	IF-603C	North of IF-603, northwest of cooling tower	Active	Roof drain and cooling water and condensate from air compressors			
4-IRC	90	None	IF-603D	North of IF-603 and east of cooling tower	Active	Precipitation collection from roof drain			
5-IRC	91	None	IF-602A	Northeast of IF-602	Active	Precipitation collection from roof drain			
6-IRC	92	None	IF-602B	Southwest of IF-602	Active	Precipitation collection from roof drain			

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
4-PBF[a]	44	None	PBF-609	Basement, east side of WERF at base of stairs	Temporarily abandoned	This well was used for surface runoff disposal	This shallow injection well has been temporarily abandoned. With the addition to the SPERT III facility as WERF, a drain plug was placed in the borehole to prevent disposal. The facility does not plan on using this well in the future.	This shallow injection well received surface runoff discharges and does not qualify as a solid waste management unit. This shallow injection well is not subject to RCRA corrective actions. The well will be permanently abandoned in accordance with IDAPA 37.03.03.030.04. The shallow injection well will be plugged with bentonite grout, cement grout, concrete, puddling clay, or other impermeable material to prevent the upward or downward migration of fluids.[b]	
5-PBF	None	None	PBF-622	East of PBF-622 at WERF	Temporarily abandoned	Once received drainage from floor drain (now plugged)	Shallow injection well is located beneath a manhole cover labeled "SEWER". SIW is 6'x6' box with open bottom.	Prior to permanent abandonment, IDWR shall be notified in accordance with IDAPA 37.03.03.030.04. Abandonment shall be accomplished in accordance with IDAPA 37.03.03.030.04.	
5-RWMC	None	None	5-RWMC	East of WMF-603	Active	Drains bleed-off from domestic water pumps in WMF-603			
1-TAN[a]	1	None	TAN-702	South of fuel storage tank TAN-702	Temporarily abandoned	This well received steam condensate for disposal from fuel oil tank heating coils	This shallow injection well was temporarily abandoned over 10 years ago. The steam line was shut off and removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
2-TAN[a]	2	None	TAN-724	South of fuel storage tank TAN-724	Temporarily abandoned	This well received steam condensate from fuel oil tank heating coils	This shallow injection well was temporarily abandoned over 10 years ago. The steam line was shut off and removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
6-TAN	None	None	TAN 614	West side of TAN 614	Active	Fire pump test packing gland potable water runoff	A red pipe (approx. 1 to 2 inches diameter) exits the west wall (about half way up) of building TAN-614. The pipe runs down the building wall and discharges onto a concrete pad (approx. 8" x 14"). The fire/potable water then drains onto the surrounding gravel. There is no hole or excavation currently associated with this discharge.	This discharge does not meet the definition of a shallow injection well. It is recommended that a request be submitted to IDWR to remove this discharge from the SIW inventory list.	
7-TAN	None	None	TAN 628	Bottom of the TAN 628 loading ramp	Active	Storm water runoff			
5-TRA[a]	12	None	TRA FD5	Floor drain in TRA-669	Inactive	Steam condensate drain	This floor drain is no longer used. It was declared permanently inactive in 1991.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
6-TRA	13	None	TRA FD6	West side of TRA-634	Active	Fire sprinkler drainage. Low-level radioactively contaminated reactor parts stored in the building. It is possible the firewater could become radioactively contaminated and discharge to the shallow injection well.	The four-floor drains flow to a common sump located exterior and west of TRA 634. According to the as-built drawing (DWG 161022, Section A), the sump is 48" diameter perforated concrete pipe 9' long with a pre-cast concrete cover (flush with ground surface) filled with 4' of 1" to 4" washed gravel.	This shallow injection well requires further evaluation.	
7-TRA[a]	15	None	TRA FD7	Floor drain in TRA-673	Inactive	Fire sprinkler drainage	This shallow injection well (floor drain) is no longer used. The fire sprinkler system has since been removed. The shallow injection well has been permanently inactive since 1991.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
9-TRA	17	None	TRA FD9	East side TRA-670-north	Active	Roof drain-storm water			

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
10-TRA	18	None	TRA FD10	East side TRA-670-center	Active	Roof drain-storm water			
11-TRA	19	None	TRA FD11	East side TRA-670-south	Active	Roof drain-storm water			
13-TRA[a]	21	None	TRA FD13	Northeast corner TRA-614	Inactive	Steam condensate drain	This shallow injection well (buried 55-gallon drum) is no longer used. It was declared permanently inactive in 1991. The steam condensate line is still in place.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
14-TRA[a]	22	None	TRA FD14	Northwest corner TRA-616	Temporarily abandoned	Steam condensate drain	Buried 55-gallon drum filled with gravel and covered with a steel grate. This shallow injection well is temporarily abandoned. The steam condensate lines have been removed.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
15-TRA[a]	23	None	TRA FD15	South side TRA-667	Inactive	Steam condensate drain	This shallow injection well is no longer used. The steam condensate piping has not been plugged. The well is considered inactive.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
18-TRA	26	None	TRA FD18	South side TRA-719 C	Permanently abandoned (listed as active in the 2000 SIW Inventory)	Steam condensate drain	Well could not be located during inspection in 2000 (E-mail note E. J. Dal Lago to M. D. Lovejoy, dated 5/1/00). Well could not be located during the 2003 inspection.	This shallow injection well no longer exists. IDWR has not been notified. The IDWR should be contacted and notification made that this well has been permanently abandoned and should be removed from the inventory.	
19-TRA[a]	27	None	TRA FD19	South side TRA-727 A	Temporarily abandoned	Steam condensate drain	This shallow injection well is no longer used. The well has been fitted with a concrete cap and is considered temporarily abandoned.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
20-TRA[a]	28	None	TRA FD20	South side TRA-727 B	Temporarily abandoned	Steam condensate drain	This shallow injection well is no longer used. The well has been fitted with a concrete cap and is considered temporarily abandoned.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
21-TRA[a]	29	None	TRA FD21	North side TRA-627 W	Inactive	Steam condensate drain	This shallow injection well (buried 55-gallon drum) is no longer used. It was declared permanently inactive in 1991. The steam condensate line is still in place.	This shallow injection well will be evaluated as a CERCLA New Site ID. The method of abandonment will be determined from the CERCLA process.	
22-TRA[a]	None	None	TRA FD22	North side TRA-627E	Temporarily abandoned	Roof drain-storm water	This shallow injection well (buried 55-gallon drum) is no longer used. It has been fitted with a steel plate and is considered temporarily abandoned.	This shallow injection well received stormwater discharges and does not qualify as a solid waste management unit. This shallow injection well is not subject to RCRA corrective actions. The well will be permanently abandoned in accordance with IDAPA 37.03.03.030.04. At the time of permanent abandonment, the shallow injection well will be plugged with bentonite grout, cement grout, concrete, puddling clay, or other impermeable material to prevent the upward or downward migration of fluids.[b]	

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
23-TRA[a]	None	TRA-41	TRA FD23	East side TRA-653	Temporarily abandoned	Sink drain for disposal to ground surface	This shallow injection well has been temporarily abandoned under CERCLA. The well is currently covered with a steel plate. The Agencies have determined that Site TRA-41 is a No Further Action site.	The shallow injection well has undergone CERCLA Investigation with a No Further Action determination. The shallow injection well will be permanently abandoned in accordance with IDAPA 37.03.03.030.04. At time of permanent abandonment, the shallow injection well will be plugged with bentonite grout, cement grout, concrete, puddling clay, or other impermeable material to prevent the upward or downward migration of fluids.[b]	
24-TRA	None	None	TRA FD24	East side TRA-653	Active	Roof drain-storm water			
25-TRA	None	None	TRA FD25	East side TRA-653	Active	Roof drain-storm water, chiller unit			
26-TRA	None	None	TRA FD26	East side TRA-638	Active	Drinking fountain drain			
27-TRA	None	None	TRA FD27	Northwest side TRA-666	Active	Storm water runoff			
28-TRA	None	None	TRA-621		Active	Open floor drain (IDRW 169632, R. 1) at NMIS facility. Designed for discharge of firewater from within SNM Storage Vault in the highly unlikely event of a severe accident scenario or the inadvertent activation of the wet pipe fire suppressions system.	There have been no releases to this well and no samples have been required. A characterization study has been conducted by TRA Environmental.		

Record Number-Facility	IDWR Record Number	CERCLA and FFA/CO Name	Well Name	General Location	Status	Function	Comment	Action	Action Date
TRA	None	None	TRA-SIW-S-089	Northeast side of tank at TRA 719 A	Active	Storm water runoff			
TRA	None	None	TRA-SIW-S-090	Northwest side of tank at TRA-719 B	Active	Storm water runoff			

a. Footnote indicates shallow injection well inventory has been updated to reflect the information provided to IDWR in the 2003 letter from R. Guymon to M. Piechowski, dated 1/3/03 (CCN 35800).

b. If another method of abandonment is determined to be more appropriate, the permanent abandonment shall be accomplished in accordance with procedures approved by the Director (IDAPA 37.03.03.030.04).