TABLE 2

NEWLY IDENTIFIED POTENTIAL AREAS OF CONCERN

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
NE-1400	N/A	Spill of tear gas powder onto roadway (1987)	5 pounds CS tear gas powder	The area was hosed down.	No	Hosing down the area is considered a sufficient remedial action.
NE-1401	6	Rupture in Coors Company natural gas line	5 million cubic feet of natural gas were released	The line was repaired and returned to service.	No	The natural gas was dissipated to the atmosphere, so no remediation is necessary.
NE-1402	2	Contaminated transformer oil leaked onto asphalt in 1983	PCB-contaminated fuel	One square foot of contaminated asphalt was removed.	No	Appropriate remedial actions were already conducted.
NE-1403	6	Gas from portable generator spilled onto parking lot in 1991	1 quart gasoline	Spill contained with Oil-Dri and removed, packaged material transferred to Building 531 Storage Area.	No	Appropriate remedial actions were already conducted.
SE-1600	1	Former pond received steam condensate from Building 881 in 1955	5,400 gallons of steam condensate	None	No	The subsurface soil in the vicinity of this former pond has been sampled in the soil sampling program for OU1. Surface soils have been completely disturbed by construction of the French Drain.
SE-1601.1 & SE-1601.2	1	Pond 8-north (SE-1601.1) and Pond 8-South (SE-1601.2) received overflow/blowdown from Building 881 Cooling Towers	Chromium-based biocides	None	No	The subsurface soil in the vicinity of these former ponds has been sampled in soil sampling program for OU1. Surface soils adjacent to 1601.2 were also sampled in the OU1 investigation.
SW-1700	5	Fuel spill into Woman Creek drainage in 1975	Either diesel or gasoline	There is no evidence that remedial actions were conducted.	No	Because 18 years have passed since the fuel was spilled into the creek, the fuel has degraded and is no longer a concern.
000-500	Site wide	Releases from the sanitary sewer system	Plutonium contaminated laundry waste, laboratory waste, photographic waste (included tritium, uranium, plutonium) tritium, chromic acid	Remedial actions were conducted in the areas of four known releases (PAC 800-145, 900-141, 700-144, and 100-604). The actions consisted of repairing the broken line and removing soil at PAC 700-144.	Yes	The sanitary sewer system has probably leaked at locations in addition to the four already identified. To determine if there are other areas of contamination, it is suggested that the sludge from several sewer junctions be sampled for plutonium, americium, and uranium. Results for this sampling could guide the selection of additional soil sampling along the sewer pipelines.
000-501	Site wide	Spraying waste oil on unpaved roads to suppress dust	Waste oils/diesel fuel number 2	None	No	The last instance of roadway spraying with waste oil is cited as having been in Sept. 1983. It is improbable that contaminants from the waste oil and/or brines would still be present on the dirt roads or nearby sediments after nine years of exposure.
100-600	13	Spill onto concrete and soil, 1990	2.75 pounds of mercury	The mercury was vacuumed from the valve floor and contaminated soil was excavated.	No	Appropriate remedial actions were already conducted.

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
100-601	13	Spill onto ground, 1989	8 ounces 1,2-ethylhexyl phosphoric acid	None	No	The small size of the spill (8 ounces) and the caustic nature of 1,2-ethylhexyl phosphoric acid indicates that this spill does not require remediation.
100-602	13	Break in Building 123 process waste line in 1989	25 gallons urine, 12.5 gallons nitric acid, 20 gallons hydrochloric acid, 1.5 pounds ammonium thiocyanate, 1.0 pound ammonium iodide, 2.5 gallons ammonium hydroxide	The spill was near two IHSSs scheduled for remediation investigation, so no action was taken.	Yes (Could be easily incorporated in OU13 RI process)	The soil was contaminated as a result of the break in the process waste line. This area is not being studied as part of OU9. (OU9 deals exclusively with abandoned process waste lines.) Therefore all breaks or releases from currently operating process waste lines will require a separate remedial investigation.
100-603	13	Overflow of process waste from Building 123 in 1989	Hydrochloric and nitric acids, urine, ammonium thiocyanate, ammonium iodide, and ammonium hydroxide	The spill was neutralized and soil samples were collected to confirm that contamination was restricted to the area.	Yes (Could be easily incorporated in OU13 RI process)	The soil was contaminated as a result of the break in the process waste line. This area is not being studied as part of OU9. (OU9 deals exclusively with abandoned process waste lines.) Therefore all breaks or releases from currently operating process waste lines will require a separate remedial investigation.
100-604	13	Leaking sanitary sewer pipes, 1990	Unknown	The pipes were repaired.	No	Sanitary sewer lines from trailers are not likely to contain any impacting contaminants, therefore investigation is not warranted.
100-605	13	Spill onto asphalt or soil, 1989	2 gallons hydraulic oil	No documentation was found which detailed a response.	No	Because of the small size of this spill and the type of material involved, (hydraulic oil does not contain PCBs), no remedial actions are warranted.
100-606	13	Spill onto asphalt, 1989	8 ounces of TCE	None	No	TCE is very volatile, so an 8-ounce spill in 1989 would no longer be of concern.
100-607	13	Transformer leak onto gravel basement floor, 1984-1986	PCB bearing cooling oil	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
100-608	13	Transformer leak onto ground, 1989	0.25 gallons of PCB containing oil	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
100-609	13	Incinerator releases to the air, 1980-1985	Dioxins and furans	None	Yes	Dioxins and furans are toxic and their presence should be examined. If the incinerator is still in place, building smear samples should be collected. In addition, soil samples should be collected from downwind of the incinerator (southern edge of the 600 Area) and analyzed for dioxins.
100-610	13	Asbestos insulation disturbed in 1987	12 linear feet of asbestos	Related asbestos was wetted down and pipes were repaired.	No	The disturbed asbestos was released to the atmosphere, so no remedial actions are necessary.

PAG Number	Located Near OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
100-611	13	Liquid spill into containment area and 3 pits under Building 123 in 1989	Several hundred gallons of acidic scrubbing solutions	All spilled materials were contained and transferred to process waste lines.	Yes	Berms and pits into which the spilled solution overflowed may not have completely contained the release.
100-612	13	Nickel-cadmium battery fell onto pavement in 1991	3 quarts potassium hydroxide	Spill contained and cleanup using Oil-Dri. Residue placed in drum for disposal	No	Appropriate remedial actions were already taken.
300-700	14	Unknown, scrap building material was buried in trench from 1955-1981	Buried material consisted of roofing material, styrofoam, asphalt, and plastic sheeting	The material was removed and taken to the sanitary landfill. No radioactivity was discovered in the trench.	No	There is no evidence that burying scrap building material had any impact on the environment.
300-701	13	Liquid spill onto loading dock in 1989	20 gallons diluted sulfuric acid	Solution removed with vacuum and floor washed, waste sent to process waste system	No	Appropriate remedial actions were already taken.
300-702	13	Spills and leaks of pesticides and herbicides stored in Building 367 between 1952 and 1988. Contaminants released onto soil and possibly nearby drainage ditch.	Pesticides and herbicides in unknown quantities	Soil sampling was scheduled in 1988, but there is no record verifying that the sampling was conducted.	Yes	Soil around Building 367 and along drainage pathways are probably contaminated with residual pesticides and herbicides. Further investigations could include select soil and ditch sampling with analysis for organophosphorus and chlorinated herbicides.
300-703	13	Road oil vapors were ignited in 1970	Oil vapors and burned road oil residual	Fire was extinguished by fire department with water and dry chemical.	No	Residuals and releases from fire 22 years ago would not be present.
300-704	10 and 8	Fire on roof of Building 381 in 1982	Smoke and fluorine vapors	None	No	Fluorine vapors have already been dispersed to the atmosphere.
300-705	10 and 8	Spill into containment berm from storage tank north of Building 374 in 1989	Potassium hydroxide	The liquid was pumped back into the process waste line.	No	Appropriate remedial actions were already conducted.
300-706	10 and 8	Spill from Tank 805 north of Building 374 in 1989. Liquid spilled onto plywood deck, dripped onto concrete slab, migrated toward sump embedded in sand	2 gallons of process waste stream included a variety of chemicals	The plywood and concrete were washed with soap, the liquid was pumped to the waste system, and saturated sand and cleaning materials were removed and treated as low-level mixed waste.	No	Appropriate remedial actions were already conducted.
300-707	13 and 10	Liquid spill from tank onto asphalt in 1985	3 gallons of water and sanitizer (water and formaldehyde)	None	No	The 3 gallons of sanitizer have already evaporated.
300-708	10	Transformers leaking onto pad of unknown composition until 1987	PCB containing oil	The transformers were retrofilled in 1987.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
300-709	13	Transformer leak	772 ppm PCB oil	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey should evaluate the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
300-710	13	Gasoline spill from supply truck in 1991	2 gallons unleaded gasoline	Waste was cleaned up and packaged.	No	Appropriate remedial actions were already conducted.

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
400-800	13	Small leak from a transformer (19877)	Dielectric fluid; smear samples contained 10,964 ppm PCBs	The transformer was removed.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
400-801	12	Transformer leak on roof of Building 447 (19877)	PCB contaminated transformer oil; smear samples contained 120-94 mg of PCBs	The roofing material was removed.	Yes	Need to confirm that all material contaminated with PCBs has been removed.
400-802	14	Drums leaking on a concrete slab from 1955-1969. Equipment stored on slab was also contaminated by the leaking drums	Depleted uranium chips immersed in oil stored in 125 30-gallon drums	The drums were removed in 1956 and the concrete was decontaminated with perchloroethene. The equipment was moved to another area. After cleanup, parts of the slab registered 108 disintegrations/minute (d/m).	Yes	Soil around the concrete storage area and possibly under the area may be contaminated with uranium. Collection of soil samples around this storage area is suggested.
400-803	12	Miscellaneous materials were dumped into storm drain near Building 446 in 1972. Mixture found along open ditch south of Cottonwood Ave. northeastward to Seventh Ave.	Silver paint, oil, and aluminum paint	There is no evidence to suggest that remedial actions were conducted.	Yes	Dumping silver and aluminum paint would release heavy metals to the soil. It is suggested that soil samples be collected from the area around the storm drain and along the ditch and analyzed for lead, cadmium, chromium, and arsenic.
400-804	14	Four ingots of unknown composition fell from a truck onto asphalt in 1957.	Radioactivity	The ignots removed, the area was dry vacuumed, and hot spots were covered with asphalt.	Yes	Field sampling activities (rad survey and asphalt sampling) in OU12 work plan will sufficiently investigate this location.
400-805	13	Leak from a filler pipe near tank #9 in 1990	Fuel	The filler pipe was repaired.	No	Appropriate remedial actions were already conducted.
400-806	10(7)	Leak from production tank north of Building 440 onto pavement in 1989	5 gallons polymethylene polyphylisocyanate	The liquid was cleaned up using Oil-Dri and residue was placed in hazardous material waste drums.	No	Appropriate remedial actions were already conducted.
400-807	12	Sandblasting of railroad cars released contaminants to the air. Sandblasting may still be in operation.	Unknown	None	Yes	Field sampling activities (rad survey, surficial soils and sediment sampling) in OU12 work plan will sufficiently investigate this location.
400-808	12	Oil leaked from vacuum pump	1 quart vacuum pump oil	Contaminated soils were removed	No	Appropriate remedial actions were already taken.
400-809	12	Oil leak was found in motorcycle parking lot in 1991	1 quart motor oil	Spill cleaned up with absorbant material and packaged for disposal.	No	Appropriate remedial actions were already taken.
400-810	12	Fire in the inlet-duct of the beryllium air plenum for Building 444 in 1978	14.5 grams beryllium	None	Yes	Field sampling activities (surficial soils and sediment sampling) in OU12 work plan will sufficiently investigate this location.
500-900	8	Transformer oil	50-500 mg/L PCBs	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.

JAN-7-93 THU 10:21 DOE ENV RESTORATION DIV FAX NO. 303 966 4011 P.07

PAC Number	Located Near or In OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
500-901	8	Transformer oil	55 ppm PCBs	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
500-902	8	Transformer leak	>500 ppm PCBs	The transformer was retrofilled in 1987.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
500-903	8	1988 - Drum leaked in RCRA storage unit #1 1991 - Release in storage unit	1988: <4 ounces of S9-63 ppm PCBs 1991: 40 gallons of "Trim-sol" lubricant mixed with waste oil	1988: Leaking drum and cleanup debris placed in overpack drum. 1991: Leak was completely contained within secondary containment pan. Leaking drum placed into overpack drum. Spill pumped into new drum.	No	The 1991 incident had no impact on the environment. The 1988 event consisted of a release of less than 4 fluid oz. into a cargo container. It is unclear whether any release was made to the environment, but due to the small amount of release and the ambiguity involved, further investigation seems to be unnecessary.
500-904	8	Transformer leaks	Transformer 223-1 contained >500 ppm PCBs Transformer 223-2 contained <50 ppm PCBs	The transformers were retrofilled in 1987.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
500-905	8	Transformer leak	PCBs	None	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
600-1000	14	Transformer oil	>500 mg/L PCBs	Action was proposed, but completion was not documented.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
600-1001	14	Nov. 1954 - Drums leaked still bottoms and oils from Building 444 onto slab Sept. 1958 - Punctured drum leaked highly contaminated waste coolant from Building 776 Mar. 1960 - Drums with loose lids contaminated 2 square feet of slab with solid material from Building 883. Drum leaked waste from Building 881 onto slab.	Still bottoms and oils Contaminated waste coolant 3,000 counts/min. Up to 300 counts/min.	The drums were repacked and the south end of the slab decontaminated. The area was cleaned "to an extent" and leaking drum contents transferred to a second drum. (Smear count in 1959 found 100,000 counts/min, not related to specific release.) The contamination (up to 3,000 d/m) was removed. Leaking drums were returned to Building 881.	Yes	Soil around this concrete slab and possibly under the pad may be contaminated with uranium. Collection of soil samples around this slab are suggested.

PAG Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
		May 1960 - Corroded drums leaked acidic waste material from Building 881 onto loading facility	No contamination detected	None		
		June 1960 - Drum leaked waste from Building 881 onto slab	Waste from Building 881	None		
600-1001 (cont.)	14	Aug. 1961 - Drums leaked waste from Buildings 444 and 776 in Building 663	Waste from Buildings 444 and 776	Equipment was decontaminated or replaced.	Above	Above
		Mar. 1968 - Three drums leaked waste and contaminated trailers, forklifts, work area, and personnel clothing and shoes.	Not specified	None		
		Sept. 1963 - Drum contaminated a fork truck, panel truck, and semitrailer in Building 663.	Not specified			
600-1002	14	Transformer Storage Area Leak	PCBs	None	Yes	A PC[illegible]rvey was conducted in October 1991 (EG& 1991). This survey evaluated the conte[illegible]f all transformers at RFP. Soil conta[illegible]ted with PCBs from transformer leaks shoul[illegible] remediated, since PCBs do not degra[illegible]nd are not transported readily.
600-1003	14	Transformer leak	PCBs	None	Yes	A PC[illegible]rvey was conducted in October 1991 (EG& 1991). This survey evaluated the conte[illegible]f all transformers at RFP. Soil conta[illegible]ted with PCBs from transformer leaks shoul[illegible] remediated, since PCBs do not degra[illegible]nd are not transported readily.
700-1100	14	1964 and 1969-Plutonium contamination from incidents potentially transported along french drain.	Possible plutonium	None	Yes	The p[illegible]tial for radioactive contamination in the area [illegible]nts further investigation along the frenchdrain
700-1101	14	Laundry wastewater tank overflowed west of Building 778 into tank pit.	Laundry wastewater (probably low-level)	None	Yes	Launc[illegible]waste water may contain low level radios[illegible]e contamination. The extent of this radios[illegible]ity warrants further investigation.
700-1102	8	Transformer oil	14,900 mg/L PCBs	The transformer was removed for retro-filling and relocation several feet to the north. The pad was partially removed to 4 inches deep and appears to have had fill recently placed around it.	Yes	A PC[illegible]rvey was conducted in October 1991 (EG& 1991). This survey evaluated the conte[illegible]f all transformers at RFP. Soil conta[illegible]ted with PCBs from transformer leaks shoul[illegible] remediated, since PCBs do not degra[illegible]nd are not transported readily.
700-1103	8	Transformer oil	135-7,200 µg PCBs	PCBs were to be cleaned up with Building 707 under the Toxic Substances Control Act.	Yes	A PC[illegible]rvey was conducted in October 1991 (EG& 1991). This survey evaluated the conte[illegible]f all transformers at RFP. Soil conta[illegible]ted with PCBs from transformer leaks shoul[illegible] remediated, since PCBs do not degra[illegible]nd are not transported readily.

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
700-1104	8	Transformer oil	1,035-3,350 µg PCBs	Transformers were moved and retrofilled. Rock and gravel fill was placed around the transformer pad west of Building 708.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
700-1105	8	Transformer oil	PCBs	Transformers were retrofilled and moved several feet east and north.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
700-1106	8	Process wastewater from valve vault 12 leak spilled onto street from tank truck at entrance to portal 1	10 gallons radioactive process wastewater (no radioactivity found on street at the time)	None	Yes	The magnitude of the rad contamination from samples of the process wastewater warrants further investigation.
700-1107	8	June 10, 1986 - Open oil drum filled with water from compressor house roof overflowed and soil flowed onto road past Building 776 June 12, 1986 - Compressor waste oil spilled from overfilled drum outside door 15T north of Building 776	1 to 2 gallons oil 2 to 3 gallons oil	"Oil-Dri" was poured over the area to absorb the spilled oil. "Oil-Dri" was to be swept up, placed in a drum, and disposed in Present Landfill (PAC NW-114). Two bags of oil absorbent were used to absorb the spill.	No	Appropriate remedial actions were already conducted.
700-1108	8	Process waste storage tanks leaked chemical and radioactive contamination to the soil around Building 774, and minor leakage seeped to building footing drain tiles. July 21, 1980 - Process waste line leaked June 22, 1987 - Caustic overflowed in bermed area beneath 8,000-gallon above-ground condensate tank. Drained into western condensate receiving tank.	Mar. 1971 - 500 disintegrations per minute per liter (d/m/L) gross alpha Apr. 1971 - 400 d/m/L plutonium and 800 ppm nitrate 1,000 gallons - 2,500 pCi/L total alpha; 4000 pCi/L gross beta; 10,000 mg/L NO_3; pH 12.	1975 - Wet-well with a submersible pump installed at Building 771/774 footing drain outfall pond. 1981 - Interceptor trench pump house installed. The initial response - stop flow through waste line to stop leak. FIDLER survey to determine extent of contamination. Broken waste line excavated and loose flange identified. Contents of western condensate tank sampled, and solution pumped to sanitary sewer or Building 774 for processing.	Yes	Levels of radioactivity warrant conducting further scans of radioactive contamination.
700-1109	8	Piece of uranium found on ground between Buildings 778 and 729	Depleted uranium disk 1" diameter by 1/2-inch thick	The uranium was transported to Building 776 then to Building 779 Nuclear Material Control custodian; stored in 55-gallon drum. Site where U found surveyed (counts within background).	No	Depleted uranium is not a serious hazard.
700-1110	8	Fire in Building 771. Nickel carbonyl cylinders drummed and buried.	Nickel carbonyl	Four 55-gallon drums; 1 GI can with two cylinders and 6 loose cylinders of nickel carbonyl removed from burial pit west of Building 771 to pit east of Solar Evaporation Ponds. Explosive charges used to destructively vent the cylinders and ignite any residual gas.	No	Appropriate remedial actions were already conducted.

JAN. 1-93 THU 10:23 DOE ENV RESTORATION DIV FAX NO. 303 966 4871 P. 10

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
700-1111	8	Transformer leak	PCBs	The transformer unit was retrofilled in 1987.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
700-1112	8	Transformer leak	807 ppm PCBs	Cleanup scheduled during 1989, but not confirmed.	Yes	The previous remedial action should be confirmed. A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
800-1200	12	South process transfer line leaked Mar. 15, 1989 Mar. 16, 1989 Apr. 13, 1989 June 1989 - Secondary chase pipe leak detected	Partially neutralized HNO_3 or rinsate water contaminated with depleted uranium (pH = 1.2) 5 gallons 7 gallons (>1 lb radionuclides) 15 gallons (>100 lbs corrosives)	Discharge valves were closed and locked out; plumbing was changed and hydrostatically tested. The inner line was removed.	Yes	Since both the inner and the outer chase pipe were found to be leaking, further investigation is warranted.
800-1201	14	1957 - Plutonium fire contamination	Building 881 (NW corner) total activity = 4.5×10^4 d/m/kg 20 feet west, total activity = 1.5×10^5 d/m/kg; with some plutonium; uranium-235 in soil (1978)	April 1981 - Contaminated soil removed in two small areas near Building 883. May not be same areas.	Yes	The radioactive contamination in soil in 1978 warrants further investigation in the area around Building 881.
800-1202	12	Battery fell from truck and battery acid spilled on road	1 qt.-1/2 gallon H_2SO_4	$NaHCO_3$ applied to spill and area washed down. Battery disposed in present landfill.	No	Appropriate remedial actions were already conducted.
800-1203	12	Broken sanitary sewer line between Building 865 and 886	Sanitary sewage waste	None	No	No specific contaminants are associated with this break in the sanitary sewer line, however the site-wide sanitary sewer system (PAC 000-500) is listed as needing further investigation.
800-1204	12	Building 886 spills Jan. 1978 - vent pipe overflow onto ground 1984 - Tank overflow onto roof and ground 1986 - Tank overflow onto roof through downspouts and onto ground	2 gallons on about 16 sq. ft. 410,000 d/m/L alpha Decontamination water radioactivity 20 gallons process waste	None	Yes	Levels of radioactivity warrant conducting further scans of radioactive contamination.
800-1205	12	Uranium and plutonium and condensate contaminated east dock of Building 881	Uranium, plutonium, and condensate	None	Yes	The presence of uranium and plutonium contamination warrants further investigation specifically, the collection of wipe samples of the dock outside Building 881.

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
800-1206	12	Trash container fire in Building 883	Contaminated trash	The shift superintendent was responsible for improper cleanup activities, and Health Physics was to follow up on the incident with the proper department.	No	The drum is probably not at the same location.
800-1207	12	Transformer leak	>500 ppm PCBs	The transformer was required to be removed or replaced by fiscal year 1987 or 1988.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
800-1208	12	Transformer leak	435 gallons 110 ppm PCBs	The transformer was retrofilled in 1987	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
800-1209	12	Transformer leaks	PCBs	The transformers were retrofilled in 1987.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
800-1210	12	Transformer leaks	Possibly PCBs	The transformers were removed from the old pad, retrofilled, and placed on a new pad.	Yes	A PCB survey was conducted in October 1991 (EG&G, 1991). This survey evaluated the contents of all transformers at RFP. Soil contaminated with PCBs from transformer leaks should be remediated, since PCBs do not degrade and are not transported readily.
800-1211	12	Capacitor leak	1 pint oil (no PCBs)	A smear sample was taken from the concrete where the leak occurred. A glass bottle was placed under the leak, absorbent pads were put on the spill, and the area was barricaded.	No	Appropriate remedial actions were already conducted.
900-1300	8	Sludge from sanitary sewage treatment reverse osmosis plant	Low-level radioactive waste sludge from sanitary treatment plant	Monitoring ground water and the vadose zone are planned.	No	Monitoring is sufficient to evaluate the potential contamination from sewage sludge.
900-1301	8	79 drums containing concreted wastes from Building 991	Drummed concreted wastes contaminated with enriched and depleted uranium	None	Yes	Further investigation of this area is recommended, because concrete stabilization has not always been successful at RFP. In addition, drums were stored outside, above the headwaters of Walnut Creek. Water could have leached radioactivity from waste drums into Walnut Creek where it may be transported to ponds downstream.
900-1302	10	Gasoline spill sprayed into the air or leaked onto the ground from 55-gallon drum	Approximately 2 gallons gasoline	The Hazardous Materials Team sealed the leak, and a concrete containment berm was to be installed around the contractor's fuel storage facility.	No	Contamination was not severe and has probably degraded.
900-1303	6	Natural gas leak	Natural gas	The pipe was repaired and 400 feet of gas line near Building 991 were slated to be replaced in 1971.	No	The natural gas was dissipated to the atmosphere, so no remediation is necessary.

JAN-17-93 THU 10:20 DOE ENV RESTORATION DIV FAX NO. 303 966 4011 P.12

PAC Number	Located Near or in OU Number	Type of Release	Contaminants	Remedial Actions	Further Investigation Warranted	Rationale
900-1304	8	Chromic acid spilled in cement pit	Several gallons chromic acid laboratory waste	Steps were taken to prevent recurrence.	No	Cement pit and berm functioned properly in containing the spill; therefore no release to the environment.
900-1305	8	Prime coating spilled on roof of Building 991 under intake affected climate inside building.	Approximately 5 gallons primer Tremco Tremprime containing mineral spirits as a solvent	Primer was spread around and dried.	No	Contamination was not severe and has probably degraded.
900-1306	8	Transformer leaks	114 and 60 ppm PCBs in transformers 991-1 and 991-2, respectively	PCBs were cleaned up and the transformers repaired by an outside contractor.	Yes	Need to confirm that all contaminated material was removed from this site.
900-1307	8	Explosive bonding experiment hurled a piece of aluminum 525 feet	Uranium alloy and stainless steel	Measures were to be evaluated to prevent malfunctions during future experiments.	Yes	Explosive bonding experiments used uranium. The pit area should be investigated to determine the extent of radioactivity in the soil.
Under Building Contamination (UBC)	Site wide	Building operations released contaminants into soil or ground water under the buildings.	Radionuclides, nitrate solvents, acids, and bases	Some releases have been remediated, but a majority have never been researched.	Yes	Under building soil and ground-water contamination resulting from building operations has not be previously addressed. Virtually every current or former building used for operation, production, or maintenance could have contaminated the environment beneath the buildings. It is suggested that soil sampling be conducted in hot areas of building basements and that ground water be monitored for all the appropriate contaminants of interest. Some of the identified PACs (100-611 and 400-157.2) pertain to contamination under buildings; these PACs may be investigated concurrently with the UBCs.
PIC #9	13	Leaking drums outside Building 551.	Aqueous ammonia and carbon tetrachloride.	No cleanup mentioned.	Yes	Field sampling activities for IHSS 158 in the OU 13 work plan will sufficiently investigate this location with minor revisions.
PIC #41	8	Transformer leaks	PCBs.	Transformer 777-1 was scheduled for cleanup to occur on August 14, 1989.	Yes	PCBs do not degrade and are not readily transported.
PIC #44	8	Liquid contaminated to 6,700 d/m/s	Unknown distillate.	Soil samples taken for analysis. No cleanup mentioned.	Yes	Contaminated liquid was pumped to the ground south of building 374; no cleanup known.

REFERENCES

EG&G Rocky Flats, 1991, "Assessment of Known, Suspect, and Potential Environmental Releases of Polychlorinated Biphenyls (PCBs)," October 1991

d/m/L = distintegrations per minute per liter
pCi/L = pico-curie per liter