

TABLE I.1.1-2.—RCRA Facility Investigation Summary Information for Solid Waste Management Units

ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-01	Burn Pads: SWMUs 14-27 Burn Trays: SWMUs 28-36 Landfills: SWMUs 37-44, Burn Cages: SWMUs 45-46, Former Chemical Burn Pit Solvent Pit: SWMU-47, Solvent Pans: SWMUs 48-51 Burn Rack/Flashing Pits: SWMU 52, Demonstration Facilities	Draft RFI completed May 1995; TNRCC requested additional characterization and risk assessment of the site. Draft RFI addendum and Draft Risk Assessment submitted to TNRCC April 1996.	RFI included: surface geophysical investigations, soils investigations program involving shallow to deep drilling programs, aquifer testing, groundwater sampling, and location surveying. Sixty-four soil borings drilled: 17 waste characterization borings, 31 shallow borings, 12 intermediate borings, and 4 deep borings. A total of 568 soil and waste samples were collected and analyzed.	Consideration for a voluntary removal action or a site-specific risk assessment are recommended for Burn Pads 8 and 10. Soil removal would be limited to a depth of 4 feet below ground surface. Recommend development of alternate cleanup levels through a focused risk assessment for the Solvent Evaporation/Former Chemical Burn Pit, and implementation of engineering controls for the Burning Ground landfill cells. No immediate action is warranted for the Burning Ground units with the exception of those listed above.
AL-PX-02	SWMU 109, Building 12-68, Concrete Sump (The other 8 SWMUs are addressed in a separate RFI report.)	Draft RFI completed June 1995; Draft Final Closure Reports completed September 1995.	Two 25-foot vertical borings and eight 5-foot auger borings were drilled; 70 soil/sediment samples were collected and analyzed for metals, hexavalent chromium, pH, grain size distribution and moisture content.	A recommendation of no further action (NFA) was submitted to TNRCC for six of the nine sites. Interim Corrective Measures (ICMs) were performed at each of the three remaining sites. TNRCC is currently reviewing the RFIs and ICM Closure Plans.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-03	AOC 13: Former Cooling Tower in Zone 12	Draft RFI completed October 1993.	Five borings drilled to depths of 50 to 60 feet below the ground surface. One boring drilled to a depth of 298 feet below ground surface and completed into a monitoring well as part of the Zone 12 Groundwater Investigation (AL-PX-06). Chemical and physical samples were collected from each boring at incremental depths. Results evaluated to determine contamination present in near-surface and subsurface soils; low levels of metals, VOCs, semi-volatile organic compounds (SVOCs), and HEs found. Treatability Study fieldwork began in May 1996; soils to be analyzed for total and hexavalent chromium.	Recommended for NFA; attainment of Risk Reduction Standard (RRS) 1 or 2, as applicable, achieved. Regulatory approval is pending. Treatability/remediation activities will continue into 1997.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-04	SWMU 140: Old Sewage Treatment Plant Sludge Beds	Draft RFI completed June 1994.	Two samples were taken from each of the six sludge bed cells, one from near each inlet and one from near each outlet, for a total of 12 samples. These samples were taken at depths of 0.3 to 1.5 feet above the concrete flooring, and analyzed for VOCs, SVOCs, HfEs, metals, pesticides, and PCBs. Seven subsurface borings were drilled to depths of 31.5 to 33 feet below ground surface; 35 samples were analyzed for the same contaminants as surface samples.	Corrective Measures Study for OSTP Sludge Beds and adjacent subsurface soils is not recommended. No polychlorinated biphenyls (PCBs), SVOCs, or pesticides were detected above their quantification limits in subsurface soil samples. No HfEs were detected in laboratory analysis of the borings. Recommended for NPA. Regulatory approval is pending.
AL-PX-05	AOC 11: Fire Training Area Burn Pits	Draft Final Closure Report completed November 1995.	ICM completed in July 1995. Removed the top two feet of soil and backfill and replaced with clean topsoil.	Draft Final ICM Closure Report submitted to TNRC in November 1995.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-06	Zone 12 North Groundwater	Draft RFI completed November 1995.	Characterization of both the groundwater contamination and the source (various SWMUs). A dual phase groundwater extraction/soil vapor extraction treatability system has been installed and implemented to determine the feasibility of several remediation options, including pump and treat, soil vapor extraction of the vadose and dewatered zones, and oxygen augmentation of the vadose and dewatered zones. Injection began in April 1996, initial results indicate that the system is injecting 42,000 gallons/day of treated water into the injection well.	<p>Burning Ground: The presence of contaminants at depth in soil borings indicates a possibility of contaminant leaching into the perched aquifer with time.</p> <p>High Priority Potential Release Sites: The low concentrations and shallow depth of the contamination found during this investigation make it unlikely that any of the sites have contributed to Zone 12 Groundwater contamination.</p> <p>Former Cooling Tower: This area is unlikely to be a significant source of contaminants to Zone 12 Groundwater.</p> <p>Old Sewage Treatment Plant Sludge Beds: Unlikely to be a significant source of contaminants to Zone 12 Groundwater.</p> <p>Fire Training Area Burn Pits: Because of the shallow nature of contamination at this site, it has been concluded that the contamination does not pose a likely threat to Zone 12 Groundwater.</p> <p>Landfills: The findings for Landfill 3 (SWMU 54) identified possible sources of groundwater contamination.</p> <p>Ditches and Ponds: Areas of Pntex Plant that may affect Zone 12 Groundwater include areas drained by Flow Systems 1 and 4.</p> <p>Firing Sites: It has been determined that the existing contamination has limited vertical extent and poses little risk to Zone 12 Groundwater.</p> <p>Leaking UST Sites at Buildings 12-35 and 16-1: Benzene has been detected at concentrations of concern in well PTX10-1013 near Building 12-35.</p> <p>Miscellaneous HEs/Radiation Sites: HEs have been detected at depths approaching 100 feet. The vertical extent of contamination has not been determined in the area of Buildings 12-34 and 12-43. These areas may be potential sources of HE contamination in the groundwater.</p> <p>Miscellaneous Chemical Spills/Release Sites: Contamination has been determined to be of a superficial nature that poses little threat to Zone 12 Groundwater.</p> <p>Supplemental Verification Sites: Based on the shallow nature of the contamination, these sites pose little threat to Zone 12 Groundwater.</p> <p>USTs at Other Location: The limited extent and low concentration of contamination at these UST sites have been determined to pose no present or future threat to Zone 12 Groundwater.</p> <p>Hypalon Pond: Several inorganic and organic constituents were found in the soil in excess of closure plan target levels. Low concentrations of 1,2-dichloroethane and trichloroethane were detected at similar concentrations in other Pntex Plant groundwater monitoring wells located upgradient of the 11-14 Pond. Therefore, the constituents detected in the groundwater do not appear attributable to the pond operations.</p>

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-07	Landfills	Draft Final RFI completed: June 1995 (Group I Landfills); January 1996 (Group II Landfills); June 1996 (Group III Landfills).	Pending TNRCC response.	Recommendation for NFA for Landfill Nos. 4 and 11 (Group I) was submitted to TNRCC on June 28, 1995. A Draft Final RFI recommending NFA for Landfills 5, 6, 7, 9, 10, 12, and 13 (Group II) was submitted to TNRCC on January 15, 1996. A Draft Final RFI for Landfills 1, 2, 3, 13, Original, Abandoned Zone 10, and Sanitary Landfills (Group III) was submitted to TNRCC in June 1996. This RFI recommended NFA for many of the landfills; however, Landfill 3 may require additional corrective measures.
AL-PX-08	Ditches and Playas	Draft RFI completed September 1995.	Compilation of all data relevant to ditches and playas; evaluation of potential concern; and determination of analytes of potential concern, contaminants of concern (COC), the nature and extent of contamination, and further action areas.	Flow System 1, Flow Pathway 1A: Several inorganic and organic COCs were detected in concentrations exceeding the cleanup criteria. Many of these exceedances were found in the source area near Building 11-44. For many of these COCs, contamination extends from this area downstream to SWMUs 12 and the western ditch of SWMU 5/13. Flow Pathway 1B: Several COCs were determined to be present at levels reasonably exceeding the cleanup criteria in SWMU 5/1. However, the contamination does not appear to have migrated very far downstream and, therefore, no further action is necessary for SWMU 5/13. Flow Pathway 1C: COCs include inorganics, pesticides, PCBs, SVOCs, and HCs. For several portions of this flow pathway, further action is recommended in conjunction with building closures in these areas. In some cases, there is insufficient information to determine the extent of contamination above the decision criteria; additional sampling may be necessary. Playa 1A Area: Further action is recommended for inorganics and pesticides. Flow System 2: No further action is recommended due to the fact that no target analytes exceed the cleanup criteria. Flow System 3: Contaminants in areas requiring further action are barium and thallium in concentrations reasonably above the cleanup criteria. Further action is recommended for SWMU 8 (Playa 3). Flow System 4: Contaminants in areas requiring further action include chromium, cadmium, and antimony at SWMU 5/6; chromium and antimony at SWMU 5/8; antimony at SWMU 5/9; SWMU 5/15, portions of SWMU 5/12 that flow to Playa 4; and vanadium and antimony at SWMU 5/11. Further action is required for chromium in Playa 4. Flow System 5: Contaminants in areas requiring further action are chromium and mercury in SWMU 5/10; and antimony, cadmium, and chromium at several locations in SWMU 10 (Pantex Lake).
AL-PX-09				

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-10	Leaking Underground Storage Tanks	Draft Final Corrective Action Plan completed in October 1994.	Five USTs removed from Building 12-35 in 1988 and two USTs were removed from Building 16-1 in 1989. Benzene levels below the site in the perched aquifer exceed RRSs and will be addressed in the Zone 12 groundwater assessment.	Recommend NFA.
AL-PX-11	Miscellaneous Explosive/Radiation Sites	Draft Final RFIR completed in January 1996. Final RFIR to be completed after comments have been received.	An expedited ICM and hotspot activities will begin in October 1996. A feasibility study will be conducted for treatment of HE-contaminated soil followed by an insitu treatability study scheduled for last quarter 1996 and first quarter 1997.	Following successful completion of the feasibility study, and with TNRCC approval, appropriate further recommendations will be proposed.
AL-PX-12	SWMU 84	Draft RFI completed August 1995 and is currently under review by TNRCC.	Soil gas surveys, sediments sampling, surface and subsurface soil sampling.	Additional characterization of PCBs to the immediate north and west of PTX12-2004 is recommended to define surface soil impacts.
	SWMU 143		Soil gas surveys, sediments sampling, surface soil sampling, and soil borings.	This SWMU has not been characterized to background for several analytical groups, including pesticides, PCBs, and metals. Further sampling is recommended to define the extent of constituents identified. Leachability studies of the soils at this site may support NFA. Surface samples northwest of this SMWU should include PCB analysis.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-12 (Continued)	SMWU 103		Soil gas surveys, sediments sampling, surface soil sampling, and soil borings.	No additional site characterization is recommended.
	AOC 14		Surface soil samples, shallow soil borings	Since extent of lead contamination is known, no additional site characterization is recommended. Leachability studies for lead could be used to support a subsequent recommendation for NFA.
	SMWU 113		Surface soil samples, soil borings	The extent of soil contamination by the Risk Drivers for the site has not been defined; therefore, additional site characterization is recommended. Since site is active, it is further recommended that any additional characterization be deferred until after operations cease.
	AOC 1		Sediment sampling, surface soil sampling, and soil boring	Additional surface soil samples are recommended to define lateral extent of PCBs.
	AOC 2		Investigation of past waste management practices.	Recommended for NFA and approved by TNRCC. Will not be considered further in the RFI/Corrective Measures Study (CMS) process.
	AOC 5		Sediment sampling, surface soil sampling, and shallow soil borings	No additional site characterization is recommended.
	Capacitor Bank Rupture in Zone 12		Sediment sampling, surface soil sampling, and soil borings	Recommended that no additional site characterization be conducted.
	AOC 3 (a)		Surface soil samples, and shallow soil borings	No further site characterization sampling is recommended. Leachability studies for soils are recommended at the site.
	AOC 3 (b)		Surface soil sampling, and shallow soil borings	Additional surface soil analysis using Synthetic Precipitation Procedure is recommended to define lateral extent of mercury and lead.
	AOC 7 (a)		Surface soil sampling, and soil borings	Recommended for NFA.
	AOC 7 (b)		Surface soil sampling, and soil borings	Recommended for NFA.
	AOC 7 (c)		Sediment sampling, surface soil sampling, and soil borings	Recommended for NFA.
	AOC 8 (a/b)		Soil gas survey, surface soil sampling, and soil borings	NFA recommended for Drum and Storage Pads 11-12 and 11-13 as drum storage areas. Any additional investigations can be more appropriately addressed under the Misc. HE/Radiation Release Sites RFI.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-12 (Continued)	AOC 8 (c)		Soil gas survey, surface soil sampling, and soil borings	Recommended for NFA.
	AOC 8 (d)		Soil gas survey, sediment sampling, surface soil sampling, and soil borings	Recommended for NFA.
	AOC 8 (e)		Soil gas survey, surface soil sampling, and soil borings	No further characterization is recommended.
	AOC 10 (a)		Sediment sampling, surface soil sampling, and soil borings	Additional surface sampling is recommended for HE and pesticides to the north along the drainages, and to the south, east, and west of Buildings 12-43 and 12-43A. Subsurface sampling for pesticides is also recommended in the area. HE contamination should be addressed by Misc. HE/Radiation Release Sites RFI. No additional sampling is recommended for PCBs.
	AOC 10 (b)		Surface soil sampling, and soil borings	Additional site characterization is recommended to define the extent of pesticide contamination.
	AOC 15		Sediment sampling, surface soil sampling, and soil borings	Additional characterization is needed to define vertical and lateral extents of benzo(a)pyrene, benzo(a)anthracene, and benzo(b)fluoranthene. Additional characterization is needed to define the extent of pesticide contamination. Additional characterization is needed to determine lateral extent of PCB contamination.
	Evaporation Pits Near Bldg 11-20		Sediment sampling, and soil borings	No further characterization is recommended.
	Former Leaching Bed Near Bldg 11-36		Sediment sampling, surface soil sampling, and soil borings	No additional characterization is recommended for this site.
	Building 12-5 Sump		Surface soil samples and shallow subsurface soil samples	Collection of additional data is recommended to verify the Building 12-5 Sump as a source and to determine the extent of contamination. Additional surface soil samples should be analyzed for cadmium, chromium, and nickel, and leachability studies for surface soils are recommended for lead. Future investigations of this site will be addressed under the Ditches and Playas RFI.
AL-PX-13	Supplemental Verification Sites	Draft Final RFIR completed May 1996.		Recommend for NFA.

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ALL-PX	SWMU/AOC/MISC	STATUS	ACTIONS TAKEN	RECOMMENDATIONS
AL-PX-14	USTs at Other Locations			Recommend NFA for all USTs. Regulatory approval is pending.

Sources: Argonne 1995; EEI 1995; IT 1995; IT 1995a; Radian 1995; Pantex 1994