



August 13, 2004

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

Mr. Jerry S. Johnson
Assistant Manager for Environmental and
Site Engineering Programs
U.S. Department of Energy
National Nuclear Security Administration
Pantex Site Office
P.O. Box 30030
Amarillo, TX 79120-0030

Re: **Concurrence with TCEQ Conditional Approvals**; [for soils only] *Final RCRA Facility Investigation Report, Zone 10, at Pantex Plant*, dated March 2003; *Final RCRA Facility Investigation Report, Zone 11, at Pantex Plant*, dated January 2003; *Final RCRA Facility Investigation Report, Zone 12, at Pantex Plant*, dated September 2003; *Final RCRA Facility Investigation Report, Ditches and Playas, at Pantex Plant*, dated September 2003; *Final RCRA Facility Investigation Report, Independent Sites, at Pantex Plant*, dated September 2003; Pantex Plant Superfund Site - EPA Site ID TX4890110527;

Dear Mr. Johnson,

The U.S. Environmental Protection Agency (EPA) Region 6 concurs with the conditional approval decisions for the above Final RCRA Facility Investigation Reports (RFIRs) for chemical constituents *in soils* in Zone 10, Zone 11, Zone 12, Ditches and Playas, and the Independent Sites. The sitewide Ground Water RFIR was developed as a separate document, and is currently in review. Also, the *Pantex Plant Radiological Investigation Report*, dated January 2004, addresses radionuclide contaminants in media across sites included in these referenced RFIRs. EPA Region 6 is addressing radionuclides in soils as a separate action. Under the December 21, 1994, Memorandum of Agreement between EPA and the Texas Natural Resource Conservation Commission, now the Texas Commission on Environmental Quality (TCEQ), EPA has lead regulatory authority for reviews and approval of radionuclide-related investigations and remedial decisions; TCEQ has lead for review and approval of investigations and remedial decisions for those sites with chemical contaminants.

The following comments summarize the conditions of concurrence for the Zone 10, Zone 11, Zone 12, Ditches and Playas, and Independent Sites RFIRs:

Zone 10 RFIR (Waste Management Group No. 12):

- Includes three Areas of Concern (AOC 3a, 14, Unassigned AOCs); two Supplemental Verification Sites (SVS 3, SVS 8); six Solid Waste Management Waste Units (SWMUs 68d, 84, 143, 144, 145, 146);
- Zone 10 Contaminants of Potential Concern (COPCs) for soils will go forward as COPCs for further evaluation in the Ground Water RFIR;

- EPA concurs that nature and extent for chemical constituents in soils have, for the most part, been delineated; however, any remaining uncertainties in defining vertical extent of contamination will be further evaluated in the Ground Water RFIR and addressed with long-term monitoring;
- Soil gas sources have not been fully defined and must be further evaluated in the Ground Water RFIR. Ground water monitor wells for Zone 10 are located outside the soil closure set boundary; therefore, impacts to ground water may be underestimated. This issue must also be evaluated in the Ground Water RFIR;
- EPA concurs that the current RFIR supports a Risk Reduction Standard (RRS) No. 3 closure, which will require further evaluation under the Baseline Risk Assessment for human health. An ecorisk evaluation will be conducted as appropriate.

Zone 11 RFIR (Waste Management Groups Nos. 1, 2, 3, 4, Miscellaneous):

- Includes eight Areas of Concern (AOC 8a, 8b, 1, 8c, 7a, 8d, 8e, 3b and 4 unassigned AOCs) ; two Supplemental Verification Sites (SVS 2, 5); twenty Solid Waste Management Waste Units (SWMUs 59, 60, 61, 147, 149, 150, 3, 12, 86, 117, 118, 119a, 120a, 148, 5/8, 113, 5/9, 5/11, 13, 87);
- EPA concurs with the TCEQ and Pantex recommendation that Zone 11 sites should close to Risk Reduction Standard No. 3, which will require further evaluation under the Baseline Risk Assessment for human health. Zone 11 COPCs for soils will go forward as COPCs for further evaluation in the Ground Water RFIR. An ecorisk evaluation will be conducted as appropriate;
- EPA concurs that extent of contamination has been defined to the top of the Perched Aquifer. However, sampling below the Fine-Grained Zone (FGZ) has been minimal, so there remains some uncertainty below ~ 270', to the Ogallala, that will be addressed through long-term ground water monitoring;
- Soil gas and Non-Aqueous Phase Liquids (NAPL) must be further evaluated as potential sources in the Ground Water RFIR, as concentrations are sufficient to impact the Perched Aquifer. It is our understanding that Pantex will provide more detailed information on the FGZ as a permeability barrier to further vertical migration in the Ground Water RFIR;

Zone 12 RFIR (Waste Management Groups Nos. 5, 6/7, 8, 9, 10, Miscellaneous):

- Includes ten Areas of Concern (AOC 7c, 10a, 13, 5, 10b, 6a, 12, 15, 7b, 2) ; fifty-one Solid Waste Management Waste Units (SWMUs 5/6, 56, 57, 68a, 100, 103, 104, 105, 135, 1, 2, 5/4, 5/5, 5/7, 5/12, 54, 55, 96, 97, 99, 119b, 120b, 121, 122a, 122b, 123, 125, 126, 129b, 137, 5/3, 85, 90, 91, 92, 94, 95, 102, 108, 109, 110, 141, 5/2, 93, 138, 5/1, 89, 131, 98, 101, 136); three unassigned waste management units; four Underground Storage Tanks (USTs No. 38, 39, 7, 9). These sites are assigned to the reference waste management groupings as listed in Table ES-1, page ES-1, of the Zone 12 RFIR. Note that a portion of these units are being closed under other actions from the TCEQ; however, these sites will be considered as closure proceeds by waste management groupings;

- EPA concurs with the TCEQ recommendation to close the majority of the Zone 12 waste management groupings to Texas Risk Reduction Standard No. 3, requiring further evaluation in the Ground Water RFIR and the Baseline Risk Assessment. However, we concur that those sites in Waste Management Group 8 (SWMUs 5/3, 85, 90, 91, 92, 94, 95, 102, 108, 109, 110, 141), AOC 7b, and the laundry sump are appropriate for RRS No. 2 closure, with no further action required;
- EPA concurs that nature and extent of contamination has been confirmed from surface to the FGZ, but that there is minimal data to support the Pantex conclusion that there has been no impact below the FGZ. Considering that releases to the Perched Aquifer have occurred, it must be demonstrated that the Perched is not sourcing to the Ogallala. The potential, and mechanisms (soil-to-ground water, soil gas sources), for migration must be further evaluated in the Ground Water RFIR; we recommend that final action to close this potentially significant uncertainty be determined after review and discussion of the outstanding comments on the Ground Water RFIR;
- Zone 12 COPCs for soils (and soil gas) will go forward as COPCs for further evaluation in the Ground Water RFIR;

Ditches and Playas RFIR (Waste Management Group No. 11, Playas 1, 2, 4, and Pantex Lake, Miscellaneous):

- Includes one unassigned AOC; Solid Waste Management Units (SWMUs 4, 5/10, 5/12b, 5/14, 5/15, 7, 9, 10); and SWMUs in Waste Management Group (WMG) 11 (SWMUs 6, 68b, 68c, 80, 82; Ditch SWMUs 5/13a, 5/13b, and 5/13c; Supplemental Verification Sites SVS 1 and 4 (active); investigations include Playa 1, 2, 4, and Pantex Lake;
- EPA concurs with the TCEQ recommendation to close the majority of the Ditches and Playas sites to RRS No. 3, requiring further evaluation in the Ground Water RFIR and Baseline Risk Assessment. Although Pantex has adequately characterized these sites to establish site soil COPCs (Playa 1 Waste Management Group 1 will be closed as a grouping of sites.), there remains uncertainties with regard to the vertical extent of contamination, which will be addressed through long-term monitoring. Soil COPCs, including COPCs identified for WMG No. 11 and Playa 1, must be carried forward as COPCs for the Ground Water RFIR. Any soil concentrations that exceed the RRS No. 2 screening value and fail the Synthetic Precipitation Leaching Procedure (SPLP) must be identified as potential source areas in the Ground Water RFIR;
- TCEQ has identified three units which are not eligible for closure under this RFIR: SWMU 80, which has already received closure from the TCEQ; SVS-4, which continues as an active pistol range; SWMU 9 (Playa 4), which will be evaluated for closure when investigation results from all Potential Responsible Parties (PRPs - Pantex/DOE; Texas Tech University, and the U.S. Army Corps of Engineers) are received. TCEQ has also recommended that additional ground water data be collected to support eventual closure for the Playa 4 area. This will be further discussed, along with other outstanding issues from the Ground Water RFIR;
- EPA concurs that Pantex Lake data must be reconciled against site-specific background established by the Risk Reduction Rule Guidance. Soil data for Pantex Lake and the Old

Sewage Treatment Plant (OSTP) system will be further evaluated in the Ground Water RFIR;

- The OSTP Area includes four units: a demolition area; SWMU 5/10 (drainage ditch); SWMU 140 (Treatment Plant Leaching Bed); and the Tailwater Pit (Unassigned). There are some data inconsistencies between these sites and the final drainage area, Pantex Lake, that must be further evaluated to complete the site characterization. Migration pathways, potential source areas, and cross-media (soil-to-ground water) contamination potential, will be further evaluated in the Ground Water RFIR;
- TCEQ has indicated that Pratt Lake does not drain to Pantex Lake, but rather discharges to Icehouse Lake. Please evaluate if there are any industrial impacts to Pratt Lake associated with the Pantex facility;

Independent Sites RFIR:

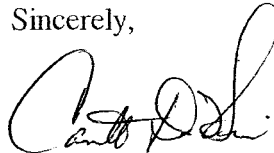
- The Independent Sites RFIR pulls together those sites not included in the previous RFIRS and includes sites previously approved for closure by TCEQ, active sites not eligible for closure, and those sites proposed for closure. The sites recommended for closure include FS-1; Unassigned Landfill 11 and FS-11; AOC 8; SVSs 6, 7a, 7b; SWMUS 63, 64, 11, 53, 58, 66, 78, 106, 139, 8);
- EPA concurs with TCEQ that SWMU 8 (Playa 8), SVS 6 (Zone 7 Landfills), SWMU 11, 64, and 66 can close to a Risk Reduction Standard No. 3. Site characterization has been adequate to identify soil COPCs, however vertical extent of contamination has not been fully defined. RRS No. 3 sites will go forward for further evaluation of potential impacts to ground water and risk to human health (Baseline Risk Assessment). Evaluation of ecological risk, for these sites, is proceeding under a separate action, as applicable;
- EPA concurs with the State recommendation that: SWMUs 53, 63, and 106 can close to a RRS No. 2, with no further actions; AOC 8, FS-1; and SWMU 62 will be considered administratively closed unless information becomes available to confirm the presence of these sites;
- Additional information is requested for SVS 7a and 7b; SWMU 78; SWMU 139; FS11; and SWMU 8 (Playa 3 and historical playa footprint); characterization (sample density; vertical extent; documentation of materials) is inadequate at SVS 7a, 7b, SWMU 78, 139, FS 11 to support closure. EPA concurs with TCEQ request for additional information at these sites.
- The RFIR must pull together information which defines key source areas for a unit or waste management group. There has been significant work done to address soil gas, as an interim action, adjacent to the Playa 3, yet very little of that information has made it into this report or the Burning Grounds RFIR. EPA received a copy of the *Final Implementation Report: Burning Grounds Soil and Gas Surveying and Volatile Organic Compound (VOC) Source Term Investigation Report, September 17, 2001*, and the *Phase 3 Conceptual Model Report for the Burning Grounds Soil and Gas Surveying and Volatile Organic Compound (VOC) Source Term Investigation Report, September 24, 2001*. However, we did not receive the *RFIR with ICM Report (Stoller 2002b)* or the *Soil Vapor Extraction Report (IT 2003)*. The University of South Carolina Earth Sciences and Resources Institute also performed additional work to locate distribution of

free-phase NAPL at the Playa in 2002. That information was referenced in discussions, but was not included in any information received by this Agency. Understanding the Burning Grounds/Playa 3 system (mechanisms for surface water-soil-ground water pathway) will be critical to any decisions for ground water monitoring or remedy selection for the northern boundary area. Please synthesize the existing information characterizing Playa 3 as a vehicle (or not) for vertical migration of contaminants to ground water, and appropriately identify all existing source areas, including soil gas sources. The Ground Water RFIR should be a stand-alone document that pulls together all pertinent information to support closure decisions.

- EPA concurs with the TCEQ recommendation for further investigation in the smaller playa basin just to the south of Playa 3.
- Perchlorate and other contaminants have been detected in the Perched Aquifer wells (e.g. PTX01-1001), in the vicinity of Playa 3. In comments on the Burning Grounds RFIR, TCEQ and EPA noted that the source for this impact to ground water must be defined and evaluated in the Ground Water RFI. This has not yet been resolved.

The EPA has provided these comments to support the TCEQ reviews and conditional approvals for the referenced Soils RFIR documents. Again, EPA Region 6 is addressing radionuclides in soils as a separate action. The Baseline Risk Assessment, required for closure to Risk Reduction Standard No. 3, will also include any radionuclide COPCs identified for those areas. Any deficiencies identified in the Soil RFIRs must be addressed before the investigation phase closes. Please let me know if you have any questions concerning these comments. I can be reached at (214) 665-2231.

Sincerely,



Camille D. Hueni
Remedial Project Manager
Region 6 Superfund Division

cc: Mr. Dennis Huddleston, BWXT
Mr. Robert Musick, TCEQ

FROM: Manager BRS Dept	
Date Received BRS: 8/20/04	
# ROUTING	TRACKING REQ. NA
# DEPT. Manager	FINAL DUE DATE NA
# Special Projects	DATE TO ES&H NA
# Technical Advisor	
# Env Restoration Mgr	
# D&D Manager	
# Samp & Anal Mgr.	A=Action
# Ops Supp/Report	I=Information
SWMU Interfer.	C=Coordinate
Admin. Record	S=Support
General Files	F=File
Other	

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