



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
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SEP 8 2005

Mr. Johnnie Guelker (PXSO-ESEP)
Lead for Site Support
U.S. Department of Energy
Albuquerque Field Office
P.O. Box 30030
Amarillo, TX 79120-0030

Mr. Dennis Huddleston, Manager
BWXT-Environmental Services Division
Department of Energy
Albuquerque Field Office
P.O. Box 30030
Amarillo, Texas 79120

Re: U.S. Environmental Protection Agency (EPA) Approval; *Final Pantex Plant Radiological Investigation Report (January 2004)*; EPA Site ID TX4890110527.

Dear Messrs. Guelker and Huddleston,

The U.S. Environmental Protection Agency (EPA) Region 6 has completed the review of the *Final Pantex Plant Radiological Investigation Report (RIR) (January 2004)*; the Department of Energy's (DOE) *Response to EPA's June 7, 2004 and July 6, 2004 Comments (December 2004)*; summary sitewide information presented to EPA on June 29, 2005; and supplemental reports - the *Final Pantex Report on Plutonium Releases to the Environment, (July 2005)* and the *Pantex Plant Final Report on Tritium Releases to the Environment (July 2005)*. The Agency has evaluated the information presented in these documents and concludes that nature and extent has been established for those areas with radionuclide impacts and that the investigation phase can be considered complete.

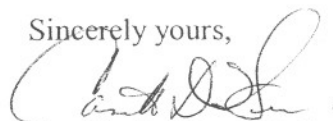
The reports presented sufficient information to define those areas impacted by radionuclide releases, predominantly the Burning Grounds Area and associated landfills, the Nuclear Weapon Accident Residue (NWAR) Storage Area, and Firing Site 5, but also defined the release potential at investigation sites throughout the facility. Six Contaminants of Potential Concern (COPCs) were identified for soils and ground water: Thorium (as ^{232}Th), Depleted Uranium (as ^{234}U and ^{238}U), ^{235}U , Tritium (as ^3H), and Plutonium (as ^{239}Pu). Although concentrations for the six radionuclide COPCs, were typically below human health and soil screening levels, all sites with detected (above background) radionuclides will be further evaluated, along with the chemical COPCs, in the ground water fate and transport model and the risk assessment process. As a conservative approach, no radionuclide site will be screened at this point in the evaluation process. Those radionuclide investigation sites in Zone 12, the Ditches and Playas, Zone 10, the Burning Grounds, the Fire Training Area, and the Landfills are in areas previously identified for closure under the Texas Commission on Environmental Quality

(TCEQ) Risk Reduction Standard (RRS) 3. The RRS 3 requires further evaluation of all constituents through the risk assessment process for those designated areas. The DOE will be providing a stand-alone risk assessment for the NWAR area which will include both chemical and radionuclide constituents. Although the RIR included a supplemental toxicological risk assessment for Firing Site #5, EPA will evaluate that risk assessment as a separate action. Impacts at both NWAR and Firing Site #5 must also be considered in the fate and transport ground water model to assess the soil to ground water pathway.

The EPA evaluated the RIR, and those documents previously noted, to support a final decision. To update the administrative record file, the RIR Executive Summary and Conclusions should be revised to include the DOE response to comments and the conclusions of the recent confirmatory sampling conducted at the Cell 1, Building 12-64, and NWAR areas. As part of these reports, Pantex also provided information to revise the reporting levels for Tritium to 4000 pCi/L for ground water and to 40 pCi/g for soils for future activities. Justification to increase the Tritium soil screening level to 425 pCi/g was also provided, although conclusions of the report are based on comparisons to a 3.8 pCi/g human health screening concentration. All suggested revisions are under evaluation, but will not be considered for this investigation phase. Although, the revisions will be applicable to future monitoring and the risk assessment process.

In summary, the EPA concludes that the RIR package provides sufficient information and sampling data to define the nature and extent of radionuclide releases, in soils and ground water, for the Pantex Plant. With this document approval, EPA agrees that the investigation phase for radiological impacts to soils and ground water has been completed. However, radionuclide constituents will be further evaluated, with chemical constituents, in the fate and transport ground water model and the risk assessments to follow. Please call me at (214) 665-2231, if you have further questions or comments.

Sincerely yours,



Camille D. Hueni, P.G.
Remedial Project Manager
AR/TX Project Management Section
Superfund Division

cc: Mr. Ata-ur Rahman, TCEQ
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