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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 21, 2004

**CERTIFIED MAIL #5407
RETURN RECEIPT REQUESTED**

Mr. Jerry S. Johnson
Assistant Area Manager
Department of Energy
Albuquerque Field Office
P.O. Box 30030
Amarillo, Texas 79120

Re: U.S. Department of Energy (DOE), Pantex Plant
TCEQ Solid Waste Registration No. 30459
TCEQ Hazardous Waste Permit No. HW-50284
EPA ID No. TX4890110527
Response to TCEQ Comments [dated August 9, 2004] on the Approach to Calculating the Exposure Point Concentration (EPC) for the Human Health Risk Assessment (HHRA) dated September 27, 2004

Dear Mr. Johnson:

The Texas Commission on Environmental Quality (TCEQ) has conducted a technical review of the above referenced DOE response letter to the TCEQ letter dated August 9, 2004. The objective of the DOE and TCEQ correspondence is to develop protocol that establishes the exposure point concentration (EPC) for the human health portion of the Baseline Risk Assessment (BRA).

Discussions between the TCEQ (*i.e., Peter Lodde, Technical Support to the Remediation Division*) and BWXT (*i.e., Michelle Bolwahn*) have established a modification to the conditions of approval identified in the TCEQ letter dated August 9, 2004. The TCEQ modifies the conditions of approval as identified in Enclosure 1 of this letter.

To document compliance with the Texas Professional Geoscience Act, the Remediation Division will not review reports and documents received on or after September 1, 2004 that contain unsealed geoscience services or work. Reports and documents with unsealed geoscience services or work will be returned to the submitting party. For further information, see the Texas Board of Professional

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Geoscientists website (<http://www.tbpg.state.tx.us>). Please direct all questions regarding what constitutes geoscience to the Board (512/936-4400).

Questions concerning this letter should be directed to me at (512) 239-2243. When responding by mail, please submit an original and one copy of all correspondence and reports to the Corrective Action Section at Mail Code MC-127 with an additional copy submitted to the TCEQ Region 1 Office in Amarillo. Please submit responses to this letter within 60 days of the date of this letter or an alternate approved date. The TCEQ Solid Waste Registration Number information should be referenced in all submittals.

Sincerely,



Robert Musick, P.G., Project Manager
Team I, Corrective Action Section
Remediation Division
Texas Commission on Environmental Quality

REM/rm

cc: Mr. Jim McWilliams, Project Manager, TCEQ Region 01 Office - Amarillo
Mr. Peter Lodde, Remediation Division, (MC168)
Ms. Shannon Ethridge, Chief Engineers Office (MC168)
Ms. Camille Hueni, Superfund Division, Texas Section (6SF-AP), USEPA Region VI

Enclosure: TCEQ Conditions of Approval - Modification

Mr. Jerry S. Johnson
Enclosure

Enclosure 1

TCEQ Conditions of Approval - Modification

Enclosure 1 - TCEQ Conditions of Approval - Modification

1. Statistical Approach

The Human Health Risk Assessment (HHRA) Work Plan defines the statistical approach for establishing the exposure point concentration (EPC) when normal and lognormal distribution occurs in the closure data set, but does not address when parametric estimators are not applicable or when the number of non-detects in the data set exceed 50 percent. The proposed statistical approach identified in the Pantex letter dated April 1, 2004 is appropriate when:

- 1) A minimum of 10 samples must be included in the data set to establish the EPC. If the data set includes from 10 to 19 samples, an uncertainty analysis must be performed to ensure that the EPC calculation methodology is appropriate for calculation of risk. Upon completion of the risk assessment, the risk assessment results are subject to TCEQ scrutiny to ensure that the methods approved for the Base Line Risk Assessment (BRA) Work Plan are applied appropriately; and,
- 2) Samples have been located with no intent to underestimate the exposure point concentration.

Condition of Approval: The TCEQ approves the statistical approach for establishing the exposure point concentration for human health based on the above conditions. This letter supercedes the TCEQ letter dated August 9, 2004 (*RE: Approach to Calculating the Exposure Point Concentration (EPC) for the Human Health Risk Assessment dated April 1, 2004*).

2. Application of the Statistical Approach to Calculate the Exposure Area

The Pantex letter dated April 1, 2004 established the statistical approach to determine the EPC for human health, but did not establish how the statistical approach will be applied to determine the human health EPC for an exposure area and the associated risk. While we approve the statistical approach, the TCEQ is concerned about how the statistical process will be applied to establish risk in an exposure area since the exposure area is set at 12 acres for inactive areas and 6 acres for active areas. It is our understanding that Pantex will be using the geographical information system "Arc View" to select and define exposure areas, which could skew the population of points and impact the EPC calculation.

Clarification: DOE outlined the application of the statistical approach within the exposure area, etc. in the DOE's letter dated September 27, 2004.

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