



Tennessee Valley Authority, Shawnee Fossil Plant, 7900 Metropolis Lake Road, West Paducah, KY 42086

March 13, 2006

Mr. William Murphie  
Manager  
Portsmouth/Paducah Project Office  
U.S. Department of Energy  
1017 Majestic Drive, Suite 200  
Lexington, Kentucky 40513

Dear Mr. Murphie:

**TENNESSEE VALLEY AUTHORITY (TVA) - SHAWNEE FOSSIL PLANT (SHF) - PADUCAH  
GASEOUS DIFFUSION PLANT (PGDP) LETTER OF AGREEMENT**

This is to confirm the mutual understandings of the Department of Energy (DOE) Portsmouth/Paducah Project Office and the Tennessee Valley Authority (TVA) about the handling of certain waste materials expected to be generated at TVA's Shawnee Fossil Plant (SHF). TVA may need to perform geotechnical drilling at SHF in response to the Kentucky Division of Waste Management's (KDWM) requirements to determine the suitability of the site for a coal ash disposal area or other subsurface investigations. Water used to decontaminate the drilling equipment likely would be generated as a waste. TVA also operates certain monitoring wells at SHF. Some of the wells are used to monitor whether contaminants are entering the groundwater from TVA's existing ash management facility. The other wells are associated with an underground storage tank corrective action. Purge water is generated as a waste when the monitoring wells are sampled. TVA estimates that it will generate 55 to 75 gallons of purge water and decontamination water on a quarterly basis as a result of these drilling and monitoring activities.

Previous operations at DOE's Paducah Gaseous Diffusion Plant (PGDP) have led to contamination of groundwater with Trichloroethylene (TCE) and Technetium (Tc-99). Without making any admissions and without waiving the right to make any assertions whatsoever, TVA and DOE acknowledge the possibility that TCE and/or Tc-99 from previous PGDP operations could have migrated under SHF land and potentially could be encountered by TVA during performance of the drilling and monitoring activities discussed above. TVA represents that it does not engage in any activities likely to produce Tc-99. TVA likely has used products containing TCE at SHF, but TVA represents that it is not aware of any facts tending to show that TCE spills or releases have occurred that could have contaminated the groundwater.

TVA intends to test the decontamination water from the geotechnical drilling and the purge water from the monitoring wells for Tc-99 and TCE. If Tc-99 is detected in those waters, either alone or in conjunction with TCE, DOE agrees, at no cost to TVA, to store such wastewater (as necessary) at the PGDP and dispose of it in PGDP's KPDES-permitted wastewater treatment facilities; provided that the wastewater (and all contaminants in the waste, including those that may be associated with past or present TVA activities) (a) meets the applicable waste acceptance criteria (WAC) and permit conditions for the wastewater without pre-treatment or processing, and (b) does not alter the regulatory status of any PGDP facility. Decontamination and purge water not found to be contaminated with Tc-99 will be managed and disposed of by TVA at no cost to DOE.

TVA will ensure that all decontamination and purge water is sampled in accordance with a sampling plan (including data validation/evaluation and quality control procedures) that is

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acceptable to DOE and is managed in accordance with all applicable requirements, including all applicable health and safety standards. Prior to shipping Tc-99 contaminated purge and decontamination water to the PGDP, TVA will notify DOE in writing of any such proposed waste shipment and provide DOE with sampling data and all other information regarding the proposed waste shipment that DOE deems necessary. Upon receipt of written notice from DOE that DOE will accept the proposed waste shipment, TVA will deliver the Tc-99 contaminated decontamination and purge water to PGDP's waste management facilities in accordance with instructions to be provided by DOE (e.g., regarding business hours, delivery point, packaging requirements, labeling, manifesting, etc.). DOE agrees to inform TVA within two weeks, if possible, whether it will accept waste that TVA proposes to ship to PGDP. Additionally, at DOE's request, TVA will provide DOE with the sampling data resulting from all testing of the decontamination and purge water regardless of whether DOE accepts such water for disposal. DOE will review TVA's sampling data, and in DOE's sole discretion, may enter sampling data showing detectible levels of Tc-99 or a combination of Tc-99 and TCE into DOE's OREIS database for potential use, as appropriate, in groundwater investigations undertaken by DOE pursuant to the response/corrective action requirements of the Paducah FFA.

For purposes of compliance with the hazardous waste regulations, TVA will be regarded as the generator of the decontamination and purge water discussed above. If decontamination and/or purge water is contaminated with Tc-99, such water will be sampled, characterized, packaged, managed and transported to the PGDP by TVA at no cost to DOE in accordance with all applicable laws and regulations. Because of the possibility that TCE and/or Tc-99 from previous PGDP operations could be present in the purge or decontamination water, the KDWM has stated that

Tc-99 contaminated purge or decontamination water with TCE concentrations above contained-in levels should be managed as F-listed hazardous waste. TVA will sample the Tc-99 contaminated wastewater for TCE in accordance with a sampling plan approved by KDWM. In deference to KDWM's request, and without making any admissions or determinations as to the origin of the TCE and without waiving the right to make any assertions whatsoever, DOE and TVA agree that if TCE is present in the Tc-99 contaminated purge or decontamination water at levels above .081 ppm (TCE),<sup>1</sup> the water will be managed in accordance with applicable law as a F-listed hazardous waste<sup>2</sup> containing residual radioactive material and will be appropriately managed as such upon receipt by DOE at PGDP. If TCE is present in such wastewater at levels below the health-based contained-in level of .081 ppm and the water is destined for treatment and disposal at one of PGDP's KPDES-permitted wastewater treatment facilities, the water will be managed as waste containing residual radioactive material, but not as F-listed (TCE-based) hazardous waste. TVA and DOE understand that KDWM and the Kentucky Division of Water (KDOW) have approved PGDP as a facility eligible to receive the wastewaters referenced above for storage in its storage facilities and for disposal in its KPDES-permitted wastewater treatment facilities (e.g., C-612 Facility).

If TVA encounters decontamination and/or purge water that is contaminated with TCE and not with Tc-99, TVA will determine based on the best information available at the time whether the TCE in the wastewater must be managed as a listed hazardous waste. Such TCE contaminated wastes will be managed and disposed of by TVA in accordance with all applicable laws and regulations and at no cost to DOE regardless of whether TVA believes the TCE to be from the PGDP.

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<sup>1</sup> .081 ppm TCE is the Kentucky Department for Environmental Protection (KDEP)-approved health-based contained-in level for liquids destined for treatment and discharge at the PGDP through KPDES-permitted outfalls.

<sup>2</sup> Unless such water is determined to be exempt from hazardous waste management requirements under applicable provisions of State or Federal law.

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Nothing herein shall be construed to prevent either DOE or TVA from asserting at a future date that Tc-99 and/or TCE found in the groundwater under SHF was generated by that party, the other party, or a third person or entity. DOE and TVA acknowledge that this letter is not a contract or enforceable agreement, but a statement of mutual understandings concerning how TVA and DOE intend to cooperate to address the proper management of decontamination and purge water to be generated by TVA at SHF. Accordingly, either TVA or DOE may discontinue its activities under this letter at any time after written notification to the other party. It is understood that DOE's performance of the activities described herein is subject to the availability of appropriated funds.

TVA and DOE understand that this letter will be shared with KDWM and KDOW and that both KDWM and KDOW will be asked to concur in the waste handling arrangements described herein. TVA and DOE will begin to implement these waste handling arrangements following receipt of KDWM's and KDOW's written concurrence with this letter.

If this letter accurately reflects DOE's understandings on this matter, please sign on the line below indicating your concurrence and return it to me. I have signed on behalf of TVA and enclosed herewith a duplicate original letter for your records. Upon receipt of DOE's signed letter, I will forward the letter to KDWM and KDOW, requesting that they concur in this letter and that they return their concurrence, to both DOE and TVA.

Thank you for your assistance.

Sincerely,



Jeff Parsley  
Plant Manager  
Shawnee Fossil Plant  
Tennessee Valley Authority

Enclosure

I hereby concur in the understandings set forth in the above letter.



William Murphie  
Manager  
Portsmouth/Paducah Project Office  
U.S. Department of Energy  
003736000

5/9/06  
Date