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United States
Environmental Protection
Agency

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February 23, 1993



James D. Bauer
Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
P.O. Box 550, A5-15
Richland, Washington 99352

Re: Delays in Implementation of 200 West Area Carbon
Tetrachloride Expedited Response Action

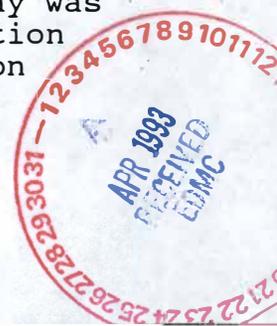
Dear Mr. Bauer:

The purpose of this letter is to provide the U.S. Department of Energy (DOE) with a response to your October 27, 1992 request concerning Reduced Extraction Capacities for the Carbon Tetrachloride Expedited Response Action (ERA). The DOE has proposed a five month extension for delivery of a new 1500 cubic feet per minute (cfm) vapor extraction system and has deferred indefinitely procurement of the second 1500 cfm system required by the ERA proposal. In addition, DOE has committed to obtain a 500 cfm lease unit and to upgrade the existing unit to 1000 cfm.

The U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) believe inadequate progress in reducing the mass of carbon tetrachloride in the soil beneath the 200 West Area has been made in the last year. Over the past year, less than one ton of carbon tetrachloride has been recovered out of the approximately 1,000 tons discharged to the soil. This represents only 0.1 percent of the estimated inventory of carbon tetrachloride in the soil column. Even with a fifteen fold increase in vapor extraction capacity as proposed by DOE (200 cfm to 3000 cfm) and increased operating efficiency, it is apparent that achievement of the goal for cleanup of carbon tetrachloride as expressed in the Engineering Evaluation/Cost Analysis (EE/CA) would require much longer than we originally anticipated.

Many problems have hindered the progress of this ERA. The lack of adequate vapor extraction capacity represents only one of those problems. DOE has altered procurement strategies for additional vapor extraction capacity twice in the last year, requesting a six month extension in January 1992 and an additional five month delay in October 1992. The first delay was based on a change in procurement strategy due to the perception that a component-by-component procurement of vapor extraction

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system was going to require many on-site modifications and additional delays. At that time, DOE committed to obtaining two 1400 cfm units as one package. DOE's current plan appears to come full circle to the original component-by-component approach.

Even more troubling than the lack of vapor extraction capacity is the inability of the DOE and its contractor to keep the existing system operating. Soil vapor extraction, although listed by EPA as an innovative remedial technology, was used in 17 percent (84) of all Superfund cleanup actions taken between 1982 and 1991. Operation of these systems is considered a routine task by the industry. Between February 24, 1992 and December 1992, the vapor extraction system at Hanford has only been operational for 469 hours and recovered less than 1900 pounds of carbon tetrachloride. In addition, the system was not operational from the week of November 11, 1992 until the end of January 1993 even though DOE had committed to complete upgrades required to allow 24 hour per day operations by the end of November 1992. DOE and its contractors have scheduled additional down-time for the existing system over the next three months for continued system upgrades.

Finally, EPA and Ecology are concerned that DOE has lost its focus on the true objective of this ERA which is to recover carbon tetrachloride from the soil column before it enters the groundwater. Since this ERA was initiated, the ERA project operations staff have been involved in a variety of other activities which appear to be taking priority over vapor extraction. Initially, EPA and Ecology welcomed the joint efforts of the ERA and the Volatile Organic Compound-Arid Site Integrated Demonstration Program as a means to obtain additional information about the nature and extent of contamination and to test monitoring, characterization, and remediation technologies which could assist in the long-term cleanup. These activities now appear to be hindering progress of the ERA project. Efforts need to be refocused on the straight forward task of carbon tetrachloride recovery.

Based on DOE and contractor performance, EPA and Ecology believe that additional vapor extraction capacity is required. We also believe other aspects of the program require management, as well as regulatory attention. The EPA and Ecology consider current progress on this project to be unsatisfactory. As a result, we are initiating a full review of the ERA project to assess vapor extraction capacity, operational practices, and characterization activities required to complete cleanup of the carbon tetrachloride contamination in the soil column beneath the 200 West Area over the next four to five years. To ensure that the cleanup of carbon tetrachloride proceeds to completion, EPA

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and Ecology are preparing a schedule for the review activities that will support an Interim Record of Decision for Remediation of Carbon Tetrachloride in the soil column in early 1994. In essence, this schedule will allow for a trial period between now and July 1993 to assess the performance of the new vapor extraction systems, to gain additional operational experience, and to identify well-field design requirements. By July 1993, it is expected that sufficient information will be available through the EE/CA, the site characterization activities, and operating experience to support an Interim Record of Decision.

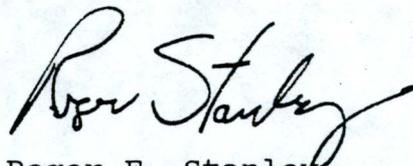
The EPA and Ecology expect DOE to proceed as requested in DOE's October 27, 1992 letter until our review of the program is completed. In addition, EPA and Ecology expect DOE to retain the options for procurement of additional vapor extraction capacity through the lease and outright purchase options until our evaluation of the capacity required to achieve timely cleanup is completed. After the review is completed in July 1993, EPA and Ecology will develop an enforceable schedule with interim milestones for submittal of a proposed plan and initiation of remedial activities for recovery of carbon tetrachloride in the vadose zone. This schedule will support issuance of an Interim Record of Decision in early 1994.

The EPA and Ecology plan to provide further detail on the program review at the next weekly ERA Interface Meeting. If you have any questions, please contact Doug Sherwood at (509) 376-9529.

Sincerely,



Randall F. Smith, Director
Hazardous Waste Division
U.S. Environmental Protection Agency
Region 10



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Subject: DELAYS IN IMPLEMENTATION OF 200 WEST AREA
CARBON TETRACHLORIDE EXPEDITED RESPONSE ACTION

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