



**Department of Energy**

Carlsbad Field Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221

JAN 14 2010

Mr. Don Hancock  
Southwest Research and Information Center  
PO Box 4524  
Albuquerque, New Mexico 87196

Dear Mr. Hancock:

The Carlsbad Field Office (CBFO) is taking the increasing levels of carbon tetrachloride in the running annual average (RAA) very seriously. We have implemented actions to minimize the level of carbon tetrachloride and are currently evaluating other options as well. The RAA for carbon tetrachloride in the underground disposal ventilation air has indicated an increasing trend, especially over the last two years. While the trend is increasing, the levels of concentration for carbon tetrachloride remain below WIPP Hazardous Waste Facility Permit action levels of 165 parts per billion (running annual average) and orders of magnitude below Occupational Safety and Health Administration action levels of 5 parts per million related to personnel exposure.

Certain homogeneous solid waste streams classified as solidified organics originating from the Rocky Flats Plant are known to contain significant levels of carbon tetrachloride. Historically, much of this waste was transported to the Idaho National Laboratory (INL) for subsurface disposal and retrievable storage. INL has been, and continues, the process of retrieving and preparing this waste for transportation and disposal at WIPP. Since 2008, a significant number of containers from two waste streams (ID-RF-S3114 and ID-SDA-SLUDGE) have been disposed of at WIPP. A review of waste emplacement history at WIPP identified that greater than 80 percent of the solidified organics waste containers containing carbon tetrachloride are emplaced in Panels 4 (filled) and 5 (active). Based on this information, efforts are being pursued to minimize the level of carbon tetrachloride from both Panels 5 and 4 as described below.

Proactive measures being evaluated to reduce the level of carbon tetrachloride from filled Panel 4 involve installation of a granulated activated carbon (GAC) system at the exhaust of the panel. Specifically, a new bulkhead is being installed in front of the existing effluent bulkhead. The air/gas/vapors in this isolated section between the two bulkheads will then be circulated through the GAC system and returned to the isolated section. The GAC is effective in adsorbing, and thus removing, carbon tetrachloride (and other volatile organic compounds) from the circulated air/gas. In this way, carbon tetrachloride levels should be reduced in air that originates around Panel 4. If this effort is successful in reducing carbon tetrachloride levels in the exhaust ventilation air, this approach may then also be used in other filled panels.

Proactive measures being evaluated to minimize the level of carbon tetrachloride from Panel 5 involve the installation of bulkhead(s) as an additional ventilation control in the last filled room (Room 6) of Panel 5. In conjunction with the bulkheads, we are considering reducing the frequency and quantity of carbon tetrachloride bearing waste being shipped and disposed of at WIPP until the associated RAA has been reduced and/or stabilized. Currently configured shipments with carbon tetrachloride bearing waste will be shipped to WIPP for disposal.

The WIPP Management and Operating Contractor has taken action to communicate volatile organic compound (VOC) related information to the workforce that includes awareness of carbon tetrachloride exposure, current monitoring methodology and proactive measures being taken within the facility. The measured levels of carbon tetrachloride do not pose either an acute or chronic threat to employees.

The VOC topic is on the agenda for the upcoming Quarterly Meeting and we will have an opportunity for further dialogue on this topic at that time.

Sincerely,



David C. Moody  
Manager

cc:

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