



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405



Ref: 8HWM-FF

OCT -1 1991

Mr. Frazer Lockhart
U.S. Department of Energy
Rocky Flats Office
P.O. Box 928
Golden, CO 80402-0926

Re: Final Phase I RFI/RI
Workplan for Operable Unit 5

Dear Mr. Lockhart:

In accordance with Attachment 2, Section I.B.9 of the Interagency Agreement (IAG), EPA has reviewed the Final Phase I RFI/RI Workplan for Operable Unit 5 (OU-5). In general, the document addresses some of the major issues and concerns which were identified by both EPA and the Colorado Department of Health (CDH) in comments on the draft version. While the document is an improvement over the draft version, EPA believes that the proposed RFI/RI program does not adequately address all of our previously identified concerns. This has resulted in what we believe is a deficient workplan which, if implemented in its present form, will provide insufficient information on which to base a risk assessment and remedial action decisions. The specific topics which were identified in previous EPA comments and were not adequately addressed are detailed in enclosure 1 to this letter.

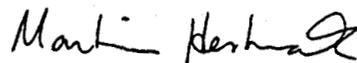
In addition, EPA and CDH have repeatedly stated our position that a staged approach to a Phase I investigation, beginning with as comprehensive a program as possible and containing clearly defined decision points directing the next appropriate investigative action, will result in a technically defensible program. We refer you to correspondence dated September 19, 1991, from CDH and EPA regarding Phase I and Phase II RFI/RI Workplans and Investigations. We consider the program which is defined in the Final Phase I RFI/RI Workplan for OU-5 to be contrary to a staged approach, too narrow, and designed under the presumption that a Phase II will be required.

Due to the deficiencies stated above, in our enclosed comments, and in the comments transmitted separately by CDH, EPA as lead regulatory agency has determined that the Final RFI/RI Workplan for OU-5 does not comply with the requirements of the IAG and is therefore disapproved. We believe that failure to submit a primary document pursuant to the appropriate timetable in accordance with the requirements of the IAG is a violation of

the agreement. We suggest that the appropriate members of your staff immediately arrange a meeting with EPA and CDH to agree on how the workplan will be revised in order to address all of the remaining issues. In the event DOE does not revise the document to satisfy our concerns and resubmit the document by December 1, 1991, the above stated violation will render DOE liable for stipulated penalties to accrue from September 30, 1991. The additional time which will be required for preparation of the necessary revisions to the workplan shall not affect any other IAG schedule nor constitute grounds for seeking additional extensions. Accordingly, it is EPA's and CDH's expectation that the draft Phase I RFI/RI Report will be submitted on November 30, 1993.

The point of contact for EPA is Bonita Lavelle at (303) 294-1067, and for CDH is Joe Schieffelin at (303) 331-4421.

Sincerely,



Martin Hestmark
Manager, Rocky Flats Project

Enclosures

cc: Gary Baughman, CDH
Joe Schieffelin, CDH
Barbara Barry, CDH/RFP
Tom Olsen, DOE
Tom Greengard, EG&G
Tom Ottensman, EG&G

U.S. Environmental Protection Agency Comments
on
Final RFI/RI Workplan for Operable Unit 5

EPA Comment on Table 4-1, Citation E-67: Detailed lithologic and hydrostratigraphic characterization of the Arapahoe Formation beneath the individual hazardous substance sites of OU-5 is essential to determining the nature and extent of contamination and is essential to fate and transport modelling of the contaminants. As previously stated, this should include geophysical studies, a bedrock boring and ground water monitoring program, and hydraulic testing of boreholes drilled in the Arapahoe Formation. DOE has acknowledged the need for limited aquifer testing however, the final work plan does not provide any discussion of this activity. Most importantly, there is virtually no program for bedrock hydrogeologic characterization.

Also, a surface geophysical survey should be an integral part of the initial investigation in the Phase I RFI/RI. While adding the magnetometer survey to the IHSS 115 (original landfill) study is positive, other geophysical techniques which will provide a better picture of the subsurface should be considered. DOE has consistently refused to provide the evidence which may substantiate that the techniques will not work. But until evidence showing that geophysical efforts performed using the appropriate tools and personnel have failed, or a demonstration effort with the same criteria fails, there is no basis for refusing to use geophysics in the investigation of OU-5. Seismic studies, as applied in the main Rocky Flats Plant area, should be conducted to determine bedrock stratigraphy and guide the bedrock monitoring program.

EPA Comment on Section 7.2.1, Old Landfill, Citation E-104: The soil gas sampling depth requirements and sample collection depth adjustment (based on field results) are not addressed for the Phase I investigation of IHSS 115. According to Citation E-104, the data suggest that ground water may be less than 10 feet below the ground surface. However, a comparison of the thickness of separation between the potentiometric contours on Figure 2-5 and the topographic contours on Figure 7-1 shows no less than 10 feet, and as much as 40 plus feet, of material exist above ground water. This suggests that DOE's refusal to collect samples from deeper locations may be based on incorrect data evaluation or presentation. If the soil gas sampling protocol described in the work plan is not adjusted according to the field investigation, soil gas results may not be effective in intersecting contaminant plumes, depending on the site topography and variability in the thickness of the landfill cover material. Therefore, the result

would be ineffective as a guide to the placement of soil borings and subsequent well installation. Also, the soil gas survey and subsequent soil sampling program make no attempt to utilize the results of the magnetometer survey to establish a grid and soil sampling locations.

In addition, DOE did not include 1,2 dichloroethane and vinyl chloride in the analytical parameters for soil gas sampling even though these compounds may be degradation products of trichloroethene, which is a contaminant of concern in IHSS 115.

EPA Comment on Section 4.1.2, Evaluate Available Data, Citation E-64: Analytical data for surface water, groundwater, and sediments are summarized in a table in the appendices of Volume II of the final workplan. However, historical air monitoring data were not included even though this medium is also considered to be a potential exposure pathway.

EPA Comment on Section 2.6.1, Conceptual Model for the Original Landfill, Citations E-46 through E-49: DOE's response to our comments on the site conceptual model is to provide a "generic" model which does not address the elements of a complete exposure pathway (i.e., source, release mechanism, transport media, exposure point, exposure route, and receptor). This is an inadequate response and the failure of DOE to develop a complete conceptual model has resulted in a deficient RFI/RI plan. For example, the possibility of surface water runoff transporting surface contaminants from IHSS is impossible to evaluate because no surface soil information is planned to be collected and the analytical program for surface water south of IHSS 115 does not match the soil borings analytical program for IHSS 115. The air pathway is similarly treated inadequately. A complete site conceptual model must be developed for all individual sites within OU-5 and this model must be used to ensure that all potential releases and completed pathways are addressed in some way in the RFI/RI.