Colorado Department of Health

Comments

TECHNICAL MEMORANDUM #1

REVISIONS TO FINAL

PHASE 1 RFI/RI WORK PLAN

ROCKY FLATS PLANT

WALNUT CREEK PRIORITY DRAINAGE

(Operable Unit No. 6)

DECEMBER 1991

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General Comment: The Division has repeatedly stated its position regarding DOE's presumption that a Phase II RFI/RI is inevitable for OU-6. The Division understands the issues and concerns raised by DOE; however, the IAG is specific that all foreseen data requirements and interpretations be addressed. The second paragraph of Section 1.0 typifies the thinking that DOE has continued to expound.

The Division concludes, however, that the Field Sampling Plan is adequate as a **first step** of a RFI/RI investigation. DOE must use the initial data to plan and conduct **subsequent steps**, as needed, prior to submission of the RFI/RI Report scheduled for August 1993. Subsequent steps should be submitted to the Division and EPA as Technical Memoranda.

Specific Comments

Citation C-112: In its response to Citation C-112, DOE states that the Division's concerns are addressed in Section 7. However, DOE still has not justified the adequacy of a 150 foot grid versus the 50' grid specified in Table 5 of the IAG Statement of Work. The question remains, does a 150' grid meet the statistical requirements of EPA's Guidance for Data Useability in Risk

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Assessment? DOE should verify the adequacy of the 150′ grid and alter it if necessary.

Figure 2-16: The flow chart represented in this figure is impacted by comments to Tables 2-22 through 2-28. It should be amended to the extent necessary to conduct the risk assessment.

Table 2-22: Surface Water should be included in Table 2-22 as a Contaminant Source. True, surface water is a Transport Media (and a release mechanism), but it is also a contaminant source. Contaminants in surface water may not be derived solely from existing sediments in Walnut Creek (e.g. the effluent from the Sewage Treatment Plant might contain contaminants.)

Sediments may exist in a dry state or under water. Wind erosion thus constitutes a Primary Release Mechanism (PRM) with Air being the Transport Media (TM). Settled dust then becomes a Secondary Release Mechanism (SRM).

Table 2-23: Wind is a PRM; Air is a TM and settled dust is a SRM for contaminated soil.

Table 2-24: Relative to Buried Wastes, Infiltration/Leaching is a PRM, Vadose Water and Ground Water are TMs for which Pumping, Seepage, and possibly Volatilization, are SRMs.

The Division questions the inclusion of Fugitive Dust Wind Erosion for a Buried Waste source. The term buried implies that the waste was covered, not merely placed in a trench and left exposed. If there is concern about soil that was contaminated as a result of burial, then wind erosion is an issue. If the latter is true, wind erosion should be addressed under Contaminated Soil.

Table 2-25: Wind Erosion is a PRM, Air is a TM and Settled Dust is a SRM. Vadose Water is a TM, while recharge to Ground Water and seepage to surface water and sediments are SRMs. Surface Water is a TM with re-suspension/dissolution as SRMs.

Table 2-26: See comments to Table 2-24.

Table 2-27: See comments to Table 2-24.

Table 2-28: See comments to Table 2-24, excluding the paragraph on Fugitive Dust Wind Erosion.

Section 7.2.1 Regarding Stage 1, the High Purity Germanium Survey (HPGe) has been touted as an improvement over the FIDLER technology and is proposed for other operable units. Would HPGe be appropriate for the radiation survey of this and the other IHSSs?

Regarding Stage 2, collection of a surface soil sample to a 2" (5 cm) depth implies use of the RF method described in EMD OP GT.8.

However, GT.8 specifies that "the CDH method will be used in IAG projects". GT.8 further states that "the grab method will be used in special circumstances when the CDH or RF methods do not apply". DOE must explain the "special circumstances" that preclude the use of the CDH method and clarify why the RF method, if this is the method being proposed, is the preferred alternative to the CDH or grab methods. The Division does not necessarily insist that the CDH method be used; however DOE must justify why it is violating its own procedures as stated in EMD OP GT.8.

GT.8 also provides for different sampling techniques for radionuclide versus non-radionuclide surface soil sampling. Since these samples are to be analyzed for TCL Metals and TCL Pesticides, in addition to radionuclides, DOE must justify how one sample will satisfy both requirements and provide reliable data.

The Division is concerned that surface soil sampling among the operable units may not be consistent and thereby may not meet PARCC goals. It is in DOE's best interests to respond to these issues to prevent the collection of unacceptable data.

<u>Section 7.2.2:</u> Regarding the second paragraph of page 7-14, Section 11.1 (SOPA) of the Final Work Plan should be updated to reflect the addition of dry surface sediment samples <u>and</u> the sample collection method to be used.

<u>Table 7-7:</u> The table states that a proposed alluvial well is shown on Figure 7-6. According to Stage 4, page 7-31, the proposed well is not shown. The well is not shown, but the Division prefers that it be shown.

<u>Section 7.2.7:</u> The second paragraph, page 7-33, references Figures 7-4 and 7-6. The proposed sediment sampling sites are shown on Figure 7-4, but not on Figure 7-6 as a new reference suggests. Please address.

In the third paragraph, reference is made to a proposed surface water station down gradient of IHSS 167.3. The Division would prefer that be shown on Figure 7-4 or 7-6.