EM-453 COMMENTS ON: DRAFT PHASE I RFI/RI WORK PLAN,
ROCKY FLATS PLANT, INSIDE BUILDING CLOSURES (OPERABLE UNIT 15)

MAJOR CONCERNS:

None

GENERAL COMMENTS:

1. Defining OU15 as stored drums within buildings and limiting sampling to drums and swipes of floor surfaces severely limits likelihood that any previous spills will be identified. Only radioactive materials not covered by epoxy paint are reliably detected by screening monitors. Collection of metals or volatile organics from pores of the floor, which may have been subsequently covered with paint or epoxy paint, with a water moistened filter is not likely to yield good recovery.

   Therefore, the question of contamination of the floor material, e.g., concrete, may not be answered. In fact, this work plan states (Section 7.2) that one of the reasons for not collecting samples of floor substrate is to prevent release of radioactivity from underneath the epoxy paint. It is not clear whether any study of soils under the buildings or drains (and collection systems from these buildings) will be conducted and if so, how the results will be integrated. It was stated that rinsates from the uranium chip roaster were disposed of in the process drain. Some discussion should be made as to which OU this drain is connected with.

   Since the floor materials and drains will not be sampled, it is not likely that contaminants will be detected, although they may exist.

2. Section 5.7.1 identifies potential technologies applicable to remediation of soils, wastes, surface water, sediments, and ground water. However, this work plan is not designed to identify contamination in most of these media since they are not sampled. The media sampled are the drums and the top surface of the floors in storage rooms. It is not clear what the potential remedial technologies are for these drums and building materials.

3. The terms "swipe" samples and "wipe" samples are both used in the document. Please revise for consistency or define the differences.

4. There are several statements in Section 2.2 that epoxy paint provides secondary containment. However, it was not clear whether the type of epoxy was compatible with the types of chemicals stored. Please explain if this unit is in compliance with the RCRA Part B permit.

5. The preservation requirements listed on Table 7-3 are not appropriate for the samples which will be collected during this investigation. Appropriate preservation requirements as well as appropriate container types and sizes should be included in the document.

6. Field changes and their appropriate documentation should be discussed.

SPECIFIC COMMENTS:

1. Section 1.3.3.3, p. 1-11, second paragraph: It would be helpful to include a representative wind rose as a figure in this section. This could probably be obtained from the local meteorological service.

2. Section 1.3.3.8, p. 1-21, second paragraph: Please provide a source for the potentiometric data.

3. Section 2, p. 2-4, last paragraph: It appears that "carbon dioxide" may actually be a misprint and could be carbon disulfide instead. If so, please make the change throughout the document.

4. Section 2.2.4, p. 2-9: The present status of the uranium chip roaster should be given. Also, a figure of the described roaster would be helpful for visualization. Values for the external and internal surface area should be included.

5. Section 2.2.4, pp. 2-9 and 2-10: If there were other accidental releases documented for this or other IHSSs, then they should be reported in this section. No mention is given on p. 2-10 as to what happened to the contaminated water that was vacuumed.

6. Section 2.2.5, p. 2-10, first paragraph: Please clarify if the aisle space is in compliance with the RCRA Part B permit application.

7. Section 2.2.6, p. 2-12: The present status of the cyanide treatment laboratory should be given.

8. Section 2.2.6, p. 2-13, first paragraph: It is believed that cyanates still represent a hazard to human health and the environment. In addition, cyanates can be slowly converted back to cyanides, especially when in contact with carbonaceous materials. It is suggested that the EPA Alternative Treatment Technology Information Center (ATTIC) Database be contacted for additional information.

9. Figure 2-2: The symbols used on the figure should be explained in the legend. Also, the title should be changed since fill and alluvium are also illustrated in addition to bedrock.

10. Section 2.3.3.1, p. 2-23 to 2-24: The retention ponds are not shown on Figure 2-4 as stated in the text.

11. Section 3, p. 3-1: It is not clear if the definition of federal and state standards as Benchmarks rather than ARARS is a legal/political issue for this site. These standards are typically used as ARARS,

but they are not necessarily site cleanup standards which are based on risk assessment at site of receptor.

12. Section 4.1.2.2, p. 4-4: It appears that the data discussed have been useful (e.g., the data were used to characterize potential contaminants). It does not seem cost effective to attempt to formally validate the existing data when data collected during the investigation will either confirm or negate the data anyway. Instead, the data could be evaluated for appropriateness. It is important to note that the EPA does not require that data used for site characterization be formally validated. Typically, data collected for site characterization do not include the deliverables necessary for a formal validation.

13. Section 4.2.2, p. 4-10: The Contract Laboratory Program (CLP) hazardous substance list (HSL) has been replaced with the target compound list (TCL) and the Target Analyte List (TAL).

14. Section 5.8, p. 5-14: Further information for conducting treatability studies may be found in the EPA's "Guide for Conducting Treatability Studies Under CERCLA: Interim Final," EPA/540/2-89/058.

15. Section 7.2, p. 7-4: This section states that analytical data for characterization of the drummed wastes have not been validated and have not been used. It would be helpful to state whether or not the data confirm the known contents of the drums. It is important to note that the EPA does not require data used for site characterization to be formally validated. These data typically do not include the deliverables necessary for validation as defined by the EPA. It is not clear whether or not the existing data have been supported by the historical information. If so, a statement in that regard would help support the stated analytical rationale.

16. Section 7.3.2, p. 7-11: Samples should also be collected from areas where screening instruments indicate contamination. Also, the entire surface of floor in the storage rooms may need to be sampled. If so, a statistical grid may be satisfactory. Swiping 1 m^2 with one filter may not be practical due to shredding.

17. Section 7.3.2, p. 7-12, first paragraph: A method for obtaining background levels for nonradioactive contaminants of concern for the wipe samples needs to be addressed.

18. Section 7.3.3, p. 7-12: The number of samples to be collected per drum should be stated.

19. Section 7.3.3, p. 7-13, second paragraph: It is not clear if the plan is to really sample closed containers with restricted openings in four equal areas.

20. Section 7.3.3, p. 7-15, second paragraph: The rationale for sampling of the polyethylene bottles which contain liquid should be stated. It is not clear whether the resultant data will be used for site contaminant characterization or disposal purposes.

21. Section 7.3.3, p. 7-15, fourth paragraph: Please define what kind of filter is to be used. Also, some discussion of recovery for compounds of interest should be provided.

22. Section 7.3.3, p. 7-17, second paragraph: Representative concentrations of depleted uranium on the surfaces should also be obtained for the interior and exterior surfaces.

23. Section 7.4, p. 7-18: The characters for wipe and drum samples should be given. Currently, only soil boring and surface soil characters are given. Neither of these types of samples will be collected during this investigation. Designations for media that will be sampled should be used.

24. Section 7.5, p. 7-21: Management of field data, such as field screening results, forms and field logbooks should be discussed.

25. Section 7.5, p. 7-22: The procedure to be used for duplicate sample collection should be described. It is not clear whether the samples will be collocated or adjacent to the original. Also, a procedure for collection of the MS/MSD samples should be included. Currently, it appears that not enough volume of sample will be collected for their analyses.

26. Section 7.5, p. 7-23: It appears that no trip blanks will be collected since the document states that trip blanks will only accompany water samples. This should be re-evaluated since no water samples will be collected. Trip blanks are very important for assessment of cross-contamination between volatile organic samples.

27. Section 7.7, p. 7-23: The types of air monitoring to be performed should be discussed.

28. Table 7-1: The footnote at the bottom of the Table does not accurately reflect CLP requirements. It should be noted that CLP requires that all method or instrument detection limits must at least meet the contract required detection limits. Data resulting from analyses using higher detection limits may only be used under the circumstances specified in the September 1991 CLP Statement of Work.

29. Table 7-2: The fourth column heading should indicate both Level IV and V data.

30. Tables 7-3 and 7-4: Please clarify holding time of 7 days and 14 days for volatile organic compounds.

31. Section 8.1, p. 8-2, third paragraph: Most of the media listed are not to be sampled. Therefore, it is not clear how the presence of contamination will be determined, or integrated with other information. Identification of potential exposure pathways is therefore difficult.

32. Section 8.2.2, p. 8-8, first sentence: The word "cannot" should be changed to "can."

33. Section 8.4, p. 8-22, first paragraph: One additional source of toxicity data for contaminants of concern is the Alternative Treatment Technology Information Center (ATTIC) Database which may be accessed through the system operator at 301-670-6294.

34. Section 10.3.7.1, p. 10-8: According to earlier sections of the document, equipment rinsate blanks will not be collected because there will be no sampling equipment except glass tubes which may be disposed of in the drums sampled. Please clarify.