



**DOCUMENT REVIEW: DRAFT FINAL TECHNICAL MEMORANDUM 4, ADDENDUM TO  
FINAL PHASE I RESOURCE CONSERVATION AND RECOVERY ACT FACILITY  
INVESTIGATION/REMEDIAL INVESTIGATION WORK PLAN, SURFACE SOIL SAMPLING PLAN -  
ASH PITS, INCINERATOR AND CONCRETE WASH PAD, ROCKY FLATS PLANT WOMAN CREEK  
PRIORITY DRAINAGE (OPERABLE UNIT 5) MARCH, 1993**

**SPECIFIC COMMENTS**

1. Section 3.1, page (p.) 16, fourth paragraph: Recommended that all radionuclide sampling be planned and performed in one event. If this recommendation is not implemented, please state how the surface soil sampling plan for anomalies that is referred to here will be handled; e.g., another Technical Memorandum.
2. Section 3.1, p. 16-21: The equation used to estimate the number of samples and the discussion throughout this section imply that the intent is to average both the random and the biased samples into one Operable Unit (OU) wide exposure point concentration for risk assessment. It is not clear or from a remedial decision point of view. Statistically, the equation (p.19) and associated confidence limits and other parameters apply only to random sampling. From the remedial decision point of view, averaging sample results over the entire area may "dilute" results downwind from a particular Individual Hazardous Substance Site that might otherwise warrant cleanup or it might indicate that cleanup is necessary over the entire OU due to a high contribution to the average from one hot spot. Recommend that further consideration and discussion be given to how the sample results will be used.
3. Section 3.1, p. 19, first and second paragraphs: Please clarify the reference to the Environmental Protection Agency (EPA) 1990; there is no such reference in the reference list. The second paragraph refers to EPA 1989 while the reference list has EPA 1989a and EPA 1989b. Please clarify which is intended here.
4. Section 3.1, p.21, first paragraph: In past versions of this text, characterization of releases from an incinerator stack was used as one of the primary reasons for surface soil sampling. No mention of this potential source is made in this section. The sampling as planned appears adequate to address releases from the incinerator. The reasons for not considering the stack as a potential source and the results of its releases not needing characterization should be given.