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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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DENVER, COLORADO 80202-2466

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REECE J		
STEWART J D		
UNDERPUY M		
WALLIN B		
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Mr. Richard Schassburger
Rocky Flats Office
U.S. Department of Energy
P.O. Box 928
Golden, Colorado 80402-0928

Subject: Technical Review Comments on Rocky Flats Plant
Draft Standard Operating Procedures (SOP)
GT.30, Rev. 0 In-Situ Characterization for Radionuclides
Using High Purity Germanium Detectors

Dear Mr. Schassburger:

As a result of our review of the above referenced document and responses to our previous comments, EPA has the following comments. Although the version of GT.30 that was submitted in March 1993 was described as being revised, none of the comments that EPA submitted were actually addressed in changes to the document. The response to our comments which accompanied this document stated that the SOP is strictly limited to operating procedures and that a separate organization monitors the quality of the these operations. Perhaps the need for such an organization would be eliminated if this SOP were better developed. The response also referenced the Compendium of In-Situ Radiological Characterization Methods and Analysis as providing information that would address EPA and CDH comments. While that document does provide useful information, some of which is related to our concerns, it does not specifically answer them.

EPA's main concern was that GT.30 did not really standardize procedures in a way that would increase quality control for the many different situations that are faced when collecting data in the field. The assumptions and limitations of in-situ radionuclide measurements are numerous, making quality control especially difficult. This SOP at least needs to address the more important variables encountered during field operations. Some of these aspects are:

1) Frequency of instrument and/or crystal calibration (or characterization) must be stated. Although operator verification of "current characterization data" is part of the SOP, there is no definition in either this document or the referenced Compendium of the frequency for conducting such instrument characterizations.

2) Count time (or acquire time) is listed as a required entry for the Log Book or Field Worksheet, but a standard count time is not specified. This is a basic aspect of instrument operation and must be specified in some manner. If count times are variable and dependent upon field conditions, this must be summarized and

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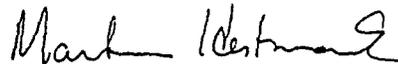
presented in the document.

3) Adjustments for rain and other weather affects are also important aspects of field operations since HPGe readings are affected by moisture. The SOP need only state under what weather conditions a change from normal procedures must occur, and briefly, what these changes would be.

4) Adjustments for terrain are also necessary for inclusion in the document since a basic assumption of in-situ measurement is that an infinite flat plane is being characterized. If there are no standard methods for making such adjustments, this must be explicitly stated in a response letter, otherwise, any types of necessary adjustments must be briefly specified. This would include either changes made in instrument positioning, count times, data processing, or any other way of handling terrain effects.

EPA agrees with your comment that this SOP is not to serve as a training manual for the equipment, however, in its present form, it is far from a fully developed and useful standard operating procedure. At a minimum, the document must address the subjects listed above in order to be approved. If this is unreasonable or impossible for some reason, a response of explanation must be submitted. Keep in mind that EPA is only interested in brief and succinct descriptions of procedures, not detailed in every step or eventuality. If you have any questions or comments on this review, please contact Gary Kleeman of my staff at 294-1071.

Sincerely,



Martin Hestmark, Manager
Rocky Flats Project

cc: Bruce Thatcher, DOE
Mike McHugh, EG&G
Ron Reiman, EG&G