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ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION
ENERGY/ENVIRONMENT SYSTEMS DIVISION

DOCKET NO. 40-18276

April 28, 1994

Dr. Sam Nalluswami
U. S. Nuclear Regulatory Commission
1 White Flint North, 5E4
Mail Stop - OWFN
Washington, DC 20555

SUBJECT: **COMMENTS ON B. KOH & ASSOCIATES LETTER REGARDING NEORSD CHARACTERIZATION PLAN**

Dear Dr. Nalluswami:

Per your request ESSAP has reviewed the responses provided in the letter of February 24, 1994, from B. Koh & Associates, Inc. and offers the following comments:

A. Responses to ESSAP comments of May 13, 1993.

1. Page 3, Item 2: ESSAP agrees that the Co-60 contaminant is not governed by RCRA or CERCLA and thus EPA does not have jurisdiction over this activity. Consequently, QAMS-005/80 would not be applicable. The reason that it was suggested as a source of guidance was that the Characterization Plan was prepared to satisfy a variety of regulatory agencies, and therefore, ESSAP assumed the state or EPA would likely comment on Data Quality Objectives. Moreover, it was our opinion that, considering the concept of DQO's was introduced by the Plan, the appropriate application of this concept was to be encouraged. Also refer to item B.3., below.

   The measurement sensitivities for Co-60 of 1.5 pCi/g in soil and 20 pCi/l in water, identified by Koh, are levels which are well within capabilities of state-of-the-art instruments and standard procedures. For comparison, ESSAP measurement sensitivities for our standard analytical techniques are 0.3 pCi/g (soil) and 7 pCi/l (water) for Co-60. The values given by Koh are also well below the cleanup guidance level of 8 pCi/g for soil and the EPA proposed drinking water concentration of slightly over 200 pCi/l. Thus, such measurement capabilities should be adequate to demonstrate meeting the established final status objective for the site.

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2. Page 1, Item b: ESSAP does not believe the issue regarding the confidence level for identifying "hot-spots" has been adequately addressed. The intent of our earlier comment was to assure that the final report of the site status included an estimate of the extent of contamination that may not have been identified by the proposed sampling plan, because the contaminant was in the form of isolated "hot-spots". Such information could be useful in estimating the most probable consequences and the "reasonable worst case" consequences of any residual contamination. The Koh response does not discuss this particular aspect of the contamination situation.

3. Page 1, Item a: This comment has been adequately addressed.

4. Page 13, Item 31: This comment has been adequately addressed.

B. Responses to other comments:

1. Page 1, Item C: While calibration of the Bicron microrem meter with Cs-137 will not likely result in significant differences when measuring Co-60 gamma energies, the same probably cannot be said for the Ludlum microR meter, which utilizes a sodium iodide detector which is energy dependent.

2. Page 3, Item 1 and Page 5, Item 7: Are the responses to these two comments in conflict?

3. Page 8, Item 8: If the contaminant and activities at this site are not subject to EPA regulation, why, in this case is EPA guidance being followed? Also see item A.1. above.

Questions regarding this information may be directed to me at (615) 576-0065, Michele Landis (615) 576-2908, or Jim Berger at (615) 576-3305.

Sincerely,

Wade C. Adams

Wade C. Adams
Health Physicist/Project Leader
Environmental Survey and
Site Assessment Program

WCA/JDB:kew

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File/186