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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 6, 1993

Mr. Paul Pak
US Department of Energy
Richland Operations
P. O. Box 550
Richland, WA 99352

Dear Mr. Pak:

Re: Comments on Two DOWs for the 200-UP-2 Work Plan

Enclosed are Ecology comments to date on the DOWs for 200-UP-2 Test Pit at 216-U-10 Pond and Cone Penetrometer Tests in the 216-U-10 Pond. These comments were previously sent to you by cc: mail.

29836
30268

If you have any questions or comments, please contact me at 736-3014.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Uziemblo".

Nancy Uziemblo
Nuclear and Mixed Waste Management Program

NU:sr
Enclosures

cc: Michael Galgoul, WHC
Dave Einan, EPA
Administrative Record 7/8/93



START

COMMENTS ON DOW FOR 200-UP-2 TEST PIT AT 216-U-10 POND

1. **Section 1.0, page 1**

Consider listing the contaminants of concern in this first paragraph.

Test pits are usually constructed to evaluate vertical extent of contaminants rather than horizontal extent. Vadose zone investigations are commonly conducted to survey the vertical extent of the contaminants.

2. **Section 1.1, page 1, first paragraph**

Supply details (depth, soil type, etc.) of the stabilization at this specific site. The Work Plan states two different depths of the clean fill (page 5-13).

3. **Section 1.1, page 1, second paragraph**

The Work Plan states that the test pit will be excavated to 35 feet., this DOW states 30 feet. In addition, it is our knowledge that the maximum allowed depth of the backhoe is 40 feet. Clarify the depth and include the maximum possible excavation depth of the pit.

4. **Section 2.1, page 1**

Will the hazardous material requirements be discussed at the HAZWOP meeting? Please notify the regulators at this pre-activity meeting.

5. **Section 3.1, page 3, first paragraph**

Further describe the procedure for field screening in the bucket. Will this be continuous screening for every bucket load, every two feet, or other? Will sampling be a function of screening?

6. **Section 3.1, page 3, second paragraph**

What is the physical extent of the one time background level establishment? How deep will the freshly disturbed surface soil be for the instrument background determination?

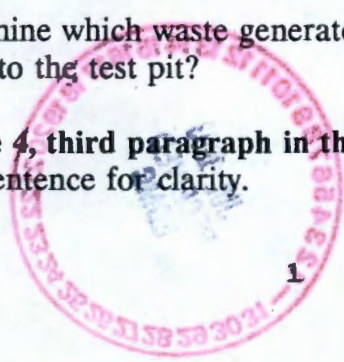
7. **Section 3.3, page 3, second paragraph**

All excavated soils should be placed on plastic or other material and covered with appropriate material. It may not be possible to separate clean material from contaminated material in the field with a backhoe.

What will determine which waste generated during the excavation activities will not be returned to the test pit?

8. **Section 3.3, page 4, third paragraph in this section**

Check the last sentence for clarity.



9. **Section 3.3, page 4, last paragraph in this section**
Does the fact that a HEIS number is attached to the samples indicate that all this data will be entered into the HEIS database? If so, it should be verified that HEIS will accept all the types of data that is planned to be entered into the database. This includes physical, radiological and chemical analyses.

10. **Section 3.4.1, page 4, first paragraph**
Should the first sentence read Geological samples for the preparation of the test pit geologic log will be obtained and described at every five foot interval....or as determined in the field.

The second sentence should read "The site geologist will identify and describe..".

Leave a clear option for additional samples to be taken in the field, especially if the proposed sampling horizons are not encountered.

11. **Section 3.4.2, page 5, second paragraph**
It is stated that "Approximately ten soil samples for chemical, physical and radiological analysis will be obtained from the two test pits in the 216-U-10 Pond, (total of 20 samples)." It would be more accurate to state that approximately ten soil samples for chemical, physical and radiological analysis will be obtained from each of the two test pits in the 216-U-10 Pond (total of 20 samples).

12. **Section 3.4.2, page 5, third paragraph**
The sampling depths were not presented in the previous paragraph.

This paragraph is confusing. It states that chemical and radiological samples will be field screened to assure that the most contaminated material from each of the target intervals is submitted for analysis. It then goes on to say that "Chemical, radiological and physical samples exceeding 25 mrem will not be collected for analysis." There needs to be an option to analyze hot samples, even if it requires onsite hot-cell analysis. Physical samples may not be able to be analyzed if they are this hot, however, chemical and radiological samples should be analyzed.

How was limit of 25 mrem(/hr?) chosen?

13. **Section 3.4.2, page 5, last paragraph**
WDOE will be present and work in conjunction with the field team leader and the samplers to obtain the sample spits. Ecology will assume the responsibility that the samples are properly collected. Shipping requirements will be determined based on the total activities (i.e. if the samples are <50 pCi/g total activity, Ecology will ship; if >50 pCi/g, WHC will ship. Ecology will be obtaining more than one sample.

14. Section 3.4.2.2, page 6, last paragraph

It states that the samples will be analyzed for using the CLP SOW's, however the methodologies listed in Table 3 are SW-846. This should be corrected.

It is stated that Level IV CLP methods and methods approved under the laboratory contract for radiological analyses (Level V, Level III for anions) will be used. If the samples exceed the 25 mrem criteria, will they be analyzed for CLP or Level III and Level V in the hot cells?

15. Section 6.0, page 7, second paragraph

Reword paragraph. Suggestion: Field changes to this description..... changing the sampling interval, etc., will be submitted..... Copies will be submitted to the regulatory agencies..... personnel within ten working days. Changes made prior to commencing field activities must result in a revised DOW.

16. Table 3

Let's discuss the selection of the full suite of target compound list and target analyte list of constituents and certain specified ions and radionuclides. Will this data be used to support ground water projections?

COMMENTS FOR DOW FOR CONE PENETROMETER TESTS
IN THE 216-U-10 POND

1. **Section 1.0, page 1**
The text states that the test is designed to identify whether an index isotope can be identified. The text defines an index radionuclide as an isotope whose distribution best estimates the maximum extent of contamination. Is this vertical extent, lateral extent?
2. **Section 1.2, page 1, first paragraph**
The text states that pond was stabilized in 1985 with clean fill dirt. What is the depth of the fill? Is the material evenly distributed over the area? Additional text should be added.
3. **Section 1.2, page 1, second paragraph**
How were the CPT sites chosen? How was 50 feet determined to be the maximum depth? Don't some of the contaminant go to groundwater?
4. **Section 1.2, page 1, second paragraph**
It is stated that the rod will be left in place and capped "until each site is geophysically logged." Does this mean that the rod will be removed, i.e., pulled, once the hole has been geophysically logged?
5. **Section 3.1, pages 2 and 3**
It is stated that all CPT sites will be constructed and abandoned as specified in the WAC 173-160 and with the variances previously obtained from Ecology for sections 173-160-075, 173-160-325, 173-160-540 and 173-160-550. There should be a reference to the Ecology letter, dated May 6, 1993, that grants the variances as requested by Steven Wisness in USDOE letter 93-ERB-145. There also could be a discussion that describes that if the rods are left in place for less than one year, the geotechnical test borings (CPTs) would be considered uncased and would not require the above variances and only the provisions in WAC 173-160-055, 173-160-010(4) and 173-160-420 would apply.
6. **Section 3.1, page 3**
How will the spectral gamma logging device be calibrated?
7. **Sections 3.2 and 3.3, page 3**
Section 3.2 states that rod pushed beyond five feet will not be removed from the ground. However, the Section 3.3 states that all CPT sites "will be abandoned by backpulling and then filling the rod with grout. If rods cannot be backpulled they will be left in place and filled with grout. All rod left in place longer than a year will be constructed with a surface seal, two feet deep by six inches around each

rod and then backfilled with two percent bentonite slurry." These two sections are confusing and should be clarified. Will there be an attempt to remove the rods after the hole has been geophysically logged? Specify how long the rods will be left in place. If the rods are left in place for greater than one year and a surface seal is placed down to two feet, will further use be made of this construction, i.e., further geophysical logging, etc?

Should 5 feet be 50 feet?

8. Section 5.0, page 3

State that the Agreement Notification form that is issued at least five days prior to the start of work will be in lieu of an Ecology start card, as previously agreed.

9. Section 6.0, page 3

In the first sentence, "Major changes" should be replaced with "Field changes". Any major change to the DOW would require regulatory approval.

The second sentence should be changed to read "Copies will be submitted to the regulatory agencies and the appropriate field personnel within ten days".

A third sentence should be added stating "Changes made prior to commencing field activities must result in a revised DOW."