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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

January 31, 1994

Ms. June M. Henning, Director
Waste Management Division
U.S. Department of Energy
PO Box 550
Richland, WA 99352-0550



Dear Ms. Henning:

Re: Sampling Plan to Identify the Potential Spill/Leak Near 242-A Evaporator
Discovered During Construction Excavation of the Pipeline for the 200
Area Treated Effluent Discharge Facility

At a meeting on January 27, 1994, concerning the above subject, the U.S. Department of Energy (USDOE) requested the Washington State Department of Ecology (Ecology) recommend a sampling plan. Ecology suggests that five samples be taken at the following locations:

Samples 1 & 2: Two samples at the depth of three to three and a half feet at the existing pipeline location and within the zone of 'green soil' observed on December 13, 1993. Two samples are requested to provide duplicate analysis and minimize the eventuality of problems occurring with a single sample which contains the contaminated soil.

Sample 3: One sample at a depth of between eight to ten feet from the surface (assuming the pipe is at a level of four feet) and directly below the observed contamination.

Sample 4: One sample at a depth of six feet located four feet from the sampling site for the previous samples. This sample should be taken in the direction of the new pipe construction and not in the direction of the existing piping.

Sample 5: One sample at a depth of six feet located four feet from the sampling site for samples 1 & 2, but in the opposite direction from sample 4.

The attached figure is included for clarification. In addition, the depth of six feet for samples 4 & 5 is only meant as a goal. If contamination should be observed at a depth of less than six feet, a sample from this area would be appropriate.

The intent of these five samples is to designate the material, to obtain an approximate indication of the amount of material which will have to be managed, and to indicate what threat the contamination may have on human health and safety. It is neither to

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determine the full extent of contamination nor to obtain a complete representation of all the contamination present. Such activities will be covered under future remediation activities.

It is recommended that the following analyses be performed on the five samples listed above:

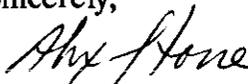
TCLP Volatile Organics
TCLP Semi-volatile Organics with Tentatively Identified Compound (TIC) analysis
TCLP Full Metals
Radiation determination (gross α , gross β , gamma spec. and alpha spec.)
Radionuclide identification (including ^{241}Am , ^{243}Am , ^{134}Cs , ^{137}Cs , ^{60}Co , ^{152}Eu , ^{154}Eu , ^{155}Eu , ^{40}K , ^{106}Ru , ^{22}Na , ^{234}U , ^{235}U , ^{238}U , ^{244}Cm , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{90}Sr)

The recommended analyses are standard for most analytical laboratories and there should be minimal delay in obtaining the desired information. A full QA/QC data validation package is required for all the above samples. However, in an effort to expedite the decision making process and minimize the amount of time before further construction activities can be completed, Ecology is willing to review non-validated data with the understanding that the data validation procedure can be done at a later time.

Ecology would like to reiterate the point that it is not our intent to seriously delay construction of the 200 Area Treated Effluent Discharge Facility (W049) pipeline system. However, agreement was reached at the meeting on January 27 to take samples during the following week. It is the preferred alternative in Ecology's opinion to base future actions for the pipeline placement at this location upon the results from this sampling event.

If you have any questions, I can be reached at (509) 736-3018.

Sincerely,



Alex Stone, 242-A Evaporator Unit Manager
Nuclear and Mixed Waste Management Program

AS:sr

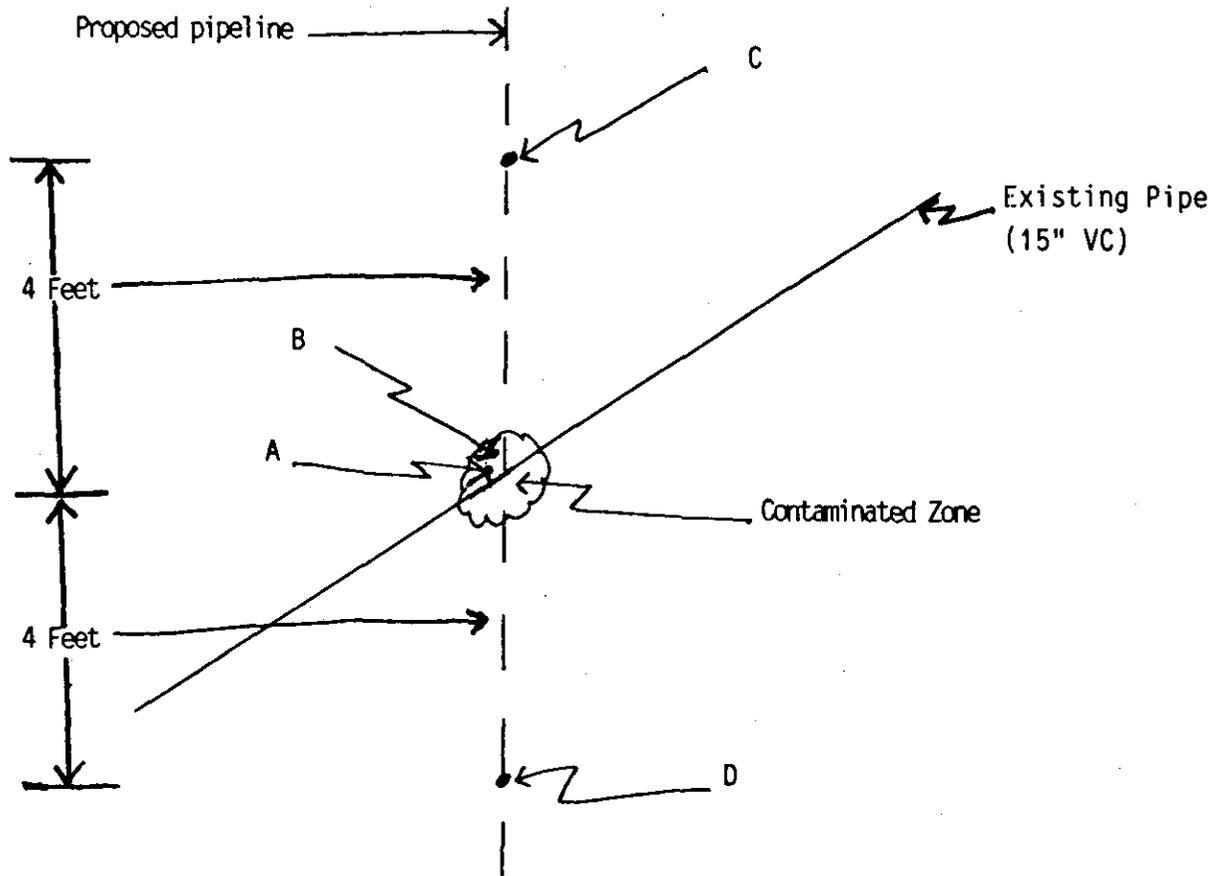
Enclosure

cc: Mr. Paul Pak USDOE
Richard Carlson WHC
Mark Carrigan, WHC
Michael Galgoul, WHC

Joe Thrasher, WHC
Tracy Yount, WHC
Kerri DuPont, KEH
Administrative Record

94-327-455

Proposed Sampling Plan



Sampling Locations:

A: Duplicate Samples 1 & 2 taken 3 - 3.5 feet below the surface and within the contamination zone*

B: Sample 3 taken 4 - 6 feet below existing pipe (8 - 10 feet below surface) and beneath contamination zone* or as near as possible to contamination zone without hitting the existing pipe

C: Sample 4 taken 4 feet from the contamination zone* and 6 feet below the surface

D: Sample 5 taken 4 feet from the contamination zone* and 6 feet below the surface

*Contamination Zone = Site of contamination (300,000 dpm green soil) observed on December 13, 1993

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