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Approved

Meeting Minutes Transmittal/Approval

Unit Managers Meeting
303-K RADIOACTIVE MIXED WASTE STORAGE FACILITY
740 STEVENS CENTER, ROOM 1416
Richland, Washington

Meeting Held February 10, 1993

303-K Storage Facility Unit Managers' Approval

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Unit Managers Meeting.

Randall N. Krekel Date: 3-11-93
Randall N. Krekel, RL, Unit Manager, EAP/RPS

Not Present Date: _____
Daniel L. Duncan, EPA Region 10, RCRA Program Manager

Scott E. McKinney Date: 3-11-93
Scott E. McKinney, Washington State Department of Ecology, Unit Manager

303-K STORAGE FACILITY, WHC Concurrence

Fred Ruck III Date: 3/11/93
Fred Ruck III, WHC, Contractor Representative

David J. Watson Date: 3/11/93
David J. Watson, WHC, Contractor Representative

Meeting Minutes are attached. The minutes are comprised of the following:

- Attachment #1 - Summary of Discussion
- Attachment #2 - Agenda
- Attachment #3 - Attendance List
- Attachment #4 - Action Items
- Attachment #5 - Ecology Presentation on Determining Inorganic Contamination in Concrete



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Attachment #1

Summary of Discussion

303-K RADIOACTIVE MIXED WASTE STORAGE FACILITY
Meeting Held February 10, 1993

Summary of Discussion

Review, Amend, Approve, and Distribute Prior Meeting Minutes: The January 12, 1993 meeting minutes were not available for this meeting and will be faxed to Ecology for review.

Status of Prior Action Items:

There are no open prior action items.

Status Ecology's review of the letter report *Determining Inorganic Contamination In Concrete*: Ecology (Scott E. McKinney and Megan E. Lerchen) provided a response to the RL/WHC letter report. Ecology stated that using TCLP as proposed was not acceptable. Ecology provided a presentation (attached) that identifies why TCLP for inorganics in concrete is not acceptable. Ecology stated that the following metals analysis for designation purposes were required:

- Total Metal Analysis using Hot Acid Leach
If any species exceed 20 times the TCLP detection limit, then TCLP is required.
- TCLP Analysis
If any species exceed the TCLP levels, then bioassay is required.
- Rat and Fish Bioassays (use depends upon results of other tests)

Ecology (Megan E. Lerchen) also indicated that this procedure is used state-wide for designation of concrete.

New Business:

Part A Permit Changes: WHC (John A. Remaize and Everett A. Weekley) stated that two new waste codes, D037 and WC02 have been found to have been stored in 303-K. It is the intent of RL/WHC to update the Part A Permit Application. However, there are 57 drums of absorbed solvent which used process knowledge for the original waste characterization in 1987. The original characterization did not adequately identify which drums contained a spent solvent waste (F003). Additional codes may be identified during re-characterization. Rather than possibly doing two updates to the Part A Permit Application (one update for the D037/WC02 codes and a second update for the F003 code and any other found during characterization the 57 drums), RL/WHC (Randy N. Krekel/Fred Ruck) requested that Ecology allow only one update after re-characterization is complete. Ecology (Scott E. McKinney) stated that a letter request was needed. RL/WHC (F. Ruck) took the following Action Item:

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2-12-93:1, Prepare a letter notifying Ecology of the potential for updating the Part A Permit Application and describing the process of periodically updating the Part A Permit Application.

Resumption of NOD Review: Ecology (Scott E. McKinney) stated that the Ecology Soil Cleanup/Remediation policy will effectively be replaced by MTCA. Ecology (Scott E. McKinney) then suggested using MTCA clean-up standards in his NOD response table review comments. RL/WHC (Randy N. Krekel/Fred Ruck) stated that was acceptable.

Next Meeting: The next UMM has been scheduled for 2:00P to 4:00P, March 10, 1993, in Richland, WA.

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Attachment #2

Agenda

303-K RADIOACTIVE MIXED WASTE STORAGE FACILITY
Unit Managers Meeting

Meeting Held February 10, 1993

- Sign previous meeting minutes.
- Status any action items.
- Status of Ecology's review of the letter report *Determining Inorganic Contamination In Concrete*. The justification for using TCLP extraction methods when analyzing concrete for inorganic contamination.
- Set next meeting date

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Attachment #4

Action Items

303-K RADIOACTIVE MIXED WASTE STORAGE FACILITY
Unit Managers Meeting

Meeting Held February 10, 1993

Action Item #

Description

2-12-93:1

Prepare a letter notifying Ecology of the potential for updating the Part A Permit Application and describing the process of periodically updating the Part A Permit Application.

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Attachment #5

**303-K RADIOACTIVE MIXED WASTE STORAGE FACILITY
Unit Managers Meeting**

Meeting Held February 10, 1993

Ecology Presentation on Determining Inorganic Contamination in Concrete

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**USDOE IS CONCERNED THAT IMPROPER DESIGNATION WILL BE THE
OUTCOME OF TOTAL METALS ANALYSIS OF POTENTIALLY
CONTAMINATED CONCRETE:**

- **VARIATIONS IN COMPOSITION CANNOT BE ACCURATELY
PREDICTED**

- **THE METALS COMPOSITION OF THE CONCRETE IS DUE TO:**
 - **CEMENT**
 - **WATER**
 - **AGGREGATE**
 - **ANY ADDITIVES**
 - **CONTAMINATION**

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USDOE ASSERTS THAT BACKGROUND DETERMINATION FOR METALS IN CONCRETE IS DIFFICULT BECAUSE OF THE FOLLOWING:

- **AVAILABILITY OF UNCONTAMINATED CONCRETE FROM THE SAME POUR**
- **OBTAINING SUFFICIENT BACKGROUND SAMPLES FOR STATISTICAL VALIDITY**
- **OBTAINING REPRESENTATIVE SAMPLES BECAUSE THE AGGREGATE SIZE AND AMOUNT VARIES**

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BECAUSE OF THEIR CONCERN, USDOE HAS PROPOSED PREPARING SAMPLES FOR METALS ANALYSIS BY A TCLP LEACH INSTEAD OF HOT ACID. IN EITHER CASE, THE METALS ANALYSIS WOULD STILL BE BY ICP.

HOT ACID (SW-846 METHOD 3050, EPA 1986)	TCLP (40 CFR PT. 261, APP. II)
COMPARE RESULTS TO KNOWN BACKGROUND LEVELS (FOR SOIL) OR DESIGNATION BY DANGEROUS WASTE MIXTURES (WAC 173-303-084) OR TOXIC DANGEROUS WASTE (WAC 173-303-101)	COMPARE RESULTS TO PUBLISHED TABLES WAC 173-303-090

USDOE ASSERTS THAT IT WOULD BE PREFERABLE TO USE THE TCLP PREPARATION METHOD FOR METALS ANALYSIS RATHER THAN THE HOT ACID DIGEST BECAUSE OF THE FOLLOWING:

USDOE ASSERTION	ECOLOGY COMMENT
<p>IT IS LESS LIKELY TO LEACH NATURALLY OCCURRING ELEMENTS FROM THE CONCRETE, THUS REDUCING THE DIFFICULTY OF DISTINGUISHING CONTAMINATION FROM NATURAL OCCURRING ELEMENTS.</p>	<p>THE TCLP IS ALSO LESS LIKELY TO LEACH CONTAMINATION.</p>
<p>IT WILL MORE ACCURATELY REPRESENT THE TYPE AND AMOUNT OF CONSTITUENT LIKELY TO LEACH FROM THE CONCRETE.</p>	<p>ONLY UNDER THE CONDITIONS THE TCLP LEACH IS DESIGNED TO DUPLICATE (I.E., A SOLID WASTE LANDFILL).</p>
<p>FEWER SAMPLES WOULD BE NEEDED (NO ESTABLISHMENT OF BACKGROUND IS NECESSARY). THERE WOULD BE LESS IMPACT ON THE FACILITY , AND A POTENTIAL FOR GENERATING LESS WASTE (FEWER SAMPLES WOULD BE NEEDED).</p>	<p>ONLY IF THE INTENT IS TO DESIGNATE CONCRETE LIKE SOILS.</p>
<p>IT IS A WELL ESTABLISHED PROCEDURE.</p>	<p>IT IS ONLY A WELL ESTABLISHED PROCEDURE FOR THE LIMITED NUMBER OF TCLP ANALYTES.</p>

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ECOLOGY DOES NOT RECOMMEND A TCLP LEACH FOR TOTAL METALS ANALYSIS.

- **STANDARDS ARE ONLY AVAILABLE FOR THE TCLP ANALYTES.**
- **FOR NON-TCLP ANALYTES, NO HEALTH-BASED LEVELS ARE AVAILABLE.**
- **ATTEMPTS TO DEVELOP HEALTH-BASED LEVELS WILL RESULT IN UNNECESSARY DELAYS.**
- **UNDER WAC 173-303-910, FOR A SUCCESSFUL PETITION TO SUBSTITUTE A DIFFERENT METHOD, IT MUST BE DEMONSTRATED THE PROPOSED METHOD IS, "EQUAL TO OR SUPERIOR ... IN TERMS OF ITS SENSITIVITY, ACCURACY, AND PRECISION"**
- **IT IS POSSIBLE TO OBTAIN AN EXEMPTION BY ESTABLISHED PROCEDURES PURSUANT TO WAC 173-303-072, PROCEDURES AND BASES FOR EXEMPTING AND EXCLUDING WASTES.**

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PERFORM THE FOLLOWING METALS ANALYSES FOR DESIGNATION PURPOSES:

- **TOTAL METALS ANALYSIS USING THE HOT ACID LEACH**
- **TCLP ANALYSIS**
- **RAT AND FISH BIOASSAYS**

DETERMINATION OF WHEN TO PERFORM RAT AND FISH BIOASSAYS DEPENDS ON THE RESULTS OF THE OTHER TESTS.

THE RESULTS OF THESE TESTS MAY BE EVALUATED UNDER WAC 173-303-072, PROCEDURES AND BASES FOR EXEMPTING AND EXCLUDING WASTES.

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Distribution:

J.G. Adler WHC H6-23
D.L. Banning WHC H6-23
A.V. Beard RL A6-55
R.M. Carosino RL A4-52
C.E. Clark RL A5-15
D.L. Duncan EPA HW-106
G.D. Forehand WHC B2-35
G.W. Jackson WHC H6-20
R.N. Krekel RL A5-15
R.J. Landon WHC H6-22
M.E. Lerchen Ecology - Lacey
S.J. Lijek MACTC A4-35
P.J. Mackey WHC B3-15
S.E. McKinney Ecology - Lacey
S.M. Price WHC H6-23
A.L. Prignano WHC H6-23
J.A. Remaize WHC L6-18
F.A. Ruck III WHC H6-23
J.J. Wallace Ecology - Kennewick
D.J. Watson WHC X0-41
E.A. Weakley WHC L6-28

ADMINISTRATIVE RECORD: 303-K Radioactive Mixed Waste Storage Facility, S-3-1,
[Care of EDMC, WHC (H6-08)]

Washington State Department of Ecology Nuclear and Mixed Waste Library,
P.O. Box 47600, Olympia, Washington 98504-7600

Environmental Protection Agency Region 10, Seattle, Washington 98101, HW-074

Please send comments on distribution list to Kym D. Tarter (H6-23), 376-4701.

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