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Final

Meeting Minutes Transmittal/Approval
300 Area Solvent Evaporator Closure Plan
Unit Managers Meeting
740 Stevens Center Building, Room 1600
Richland, Washington

Meeting Held January 5, 1993

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300 Area Solvent Evaporator Unit Managers' Approval

Randall N. Krekel, RL, EAP/RPB, Unit Manager — Date: 4-6-93

Not Present

Daniel L. Duncan, EPA Region 10, RCRA Program Manager — Date:

Robert E. Cordts, Washington State Department of Ecology, Unit Manager — Date: 6 Apr 93

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300 Area Solvent Evaporator WHC Concurrence

for Fred A. Ruck III, WHC, Contractor Representative — Date: 4-6-93

Not Present

David J. Watson, WHC, Contractor Representative — Date:

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 - *Ultrasonic Sample Preparation for Volatile Organics in Concrete: Status*, January 4, 1993

Attachment #1

300 Area Solvent Evaporator Closure Plan
Unit Managers Meeting

Meeting Held January 5, 1993

Summary of Discussion

Review, Amend, Approve, and Distribute Prior Meeting Minutes: Final 300 Area Solvent Evaporator Unit Manager Meeting minutes of October, 1992 were reviewed, approved, and signed by the Unit Managers. November, 1992 draft Unit Manager Meeting minutes were reviewed and found to have some omissions. RL/WHC will correct the minutes and send them to Mr. Cordts (Ecology) for his review before next months Unit Manager Meeting. No Unit Manager Meeting was held in December, 1992 by mutual consent of the Unit Managers.

Status Prior Action Items:

4-23-91:1 REVISED: *WHC/RL will provide Ecology with plans and procedures for the use of the thermal desorption unit at a time to be determined.* WHC (Metcalf) stated that the thermal desorption process is no longer being considered as a viable method for extracting volatile organic compounds from concrete for analysis due to operational problems with the method. Metcalf stated that no final plans and procedures were developed since the thermal desorption method did not perform well enough for its intended use. WHC (Metcalf) presented information on tests performed using the thermal desorption process and described the shortfalls of this method at the 300 Area Solvent Evaporator Closure Unit Managers Meeting held in October, 1992. Action item 4-23-91:1 is considered closed by mutual consent of the unit managers.

10-26-92:1 *RL/WHC will supply Ecology with the procedures for using Ultrasonification for the extraction of volatile organics from concrete.* WHC (Metcalf) presented the results of a comparison between the Ultrasonification and thermal desorption methods (Ultrasonic Sample Preparation For Volatile Organics In Concrete: Status January 4, 1993, Attachment #5). Attachment #5 also shows the results of the testing performed on matrix spike samples using the ultrasonification extraction technique. An additional handout was supplied by WHC (Metcalf) to Ecology (Cordts) describing the procedure for ultrasonic extraction (Analysis of Concrete For Volatile Organic Compounds, not attached). Action Item 10-26-92:1 is closed by mutual consent of the Unit Managers.

10-26-92:2 *RL/WHC will supply Ecology with information on the analysis of spiked samples using Thermal Desorption.*
Preliminary analytical results reported by WHC (Metcalf) show that calibration criteria are met using the ultrasonification rather the thermal desorption extraction techniques. Thermal desorption techniques did not meet CLP calibration criteria. Please note that a limited amount of data was reported by WHC (Metcalf) to the Unit Managers on matrix spike samples using thermal desorption as called for in Action

(continued)

Summary of Discussion (continued)

Item 10-26-92:2 at the Unit Manager Meeting held on October 26, 1992. A summary of the results of the matrix spike sample analyses was given to Ecology (Witczak) as a handout (but not attached to the Unit Manager Meeting minutes for October, 1992). Action Item 10-26-92:2 is closed by the mutual consent of the Unit Managers since the ultrasonification technique is the only method so far investigated that can meet the analytical requirements.

WHC (Metcalf) intends to continue ultrasonification research and hopes to publish analytical results in a refereed professional journal. WHC (Metcalf) agreed that if the professional paper on ultrasonification extraction of volatile organics from concrete is written it will be submitted to Ecology for their review. WHC continues to work in coordination with the EPA Manchester Laboratory during development of the ultrasonification procedures.

Action Item:

1-05-93:1 WHC will continue ultrasonification research.

New Business: There were no new items of business. The next Unit Managers Meeting is scheduled for February 2, 1993, in Richland, Washington.

Attachment #2

300 Area Solvent Evaporator Closure Plan
Unit Managers Meeting

Meeting Held January 5, 1993

Agenda

- Review, Amend, Approve, and Distribute Prior Meeting Minutes
- Status Prior Action Items
  Open Date: Sonification Proceedure to Ecology for Concurrence
- New Business

Attachment #3

300 Area Solvent Evaporator Closure Plan
Unit Managers Meeting

Meeting Held January 5, 1993

Attendance List

Name	Organization	Phone
Sam B. Clifford	WHC	509-376-6821
Bob Cordts	Ecology	206-459-6863
Jim Consort	GSSC	509-376-5011
Randall N. Krekel	RL	509-376-4264
Steve Lijek	GSSC	509-376-0309
Bob McLeod	RL	509-372-0096
Steve Metcalf	WHC	509-373-1213
Fred Ruck	WHC	509-376-9876

Attachment #4

300 Area Solvent Evaporator Closure Plan
Unit Managers Meeting
Meeting Held January 5, 1993

Commitments/Agreements Status

Action Items	Commitments/Agreement Status List
4-23-91:1	REVISED: WHC/RL will provide Ecology with plans and procedures for the use of the thermal desorption unit at a time to be determined. Action: F. Ruck
	CLOSED 1/5/93
5-21-92:1	RL/WHC will submit draft page changes to the work plan to Ecology as requested. Action: F. Ruck.
	CLOSED 10/26/92
10-26-92:1	RL/WHC will supply Ecology with the procedures for using Ultrasonification for the extraction of volatile organics from concrete. Action: S. Metcalf
	CLOSED 1/5/93
10-26-92:2	RL/WHC will supply Ecology with information on the analysis of spiked samples using Thermal Desorption. Action: S. Metcalf
	CLOSED 1/5/93 by mutual consent of the Unit Managers.
1-05-93:1	WHC will continue ultrasonification research. Action: Metcalf, WHC
	NEW

UMM 300ASE
1-5-92, 2pg

ULTRASONIC SAMPLE PREPARATION FOR VOLATILE ORGANICS IN CONCRETE: STATUS
(January 4, 1993)

Excellent progress has been achieved. The laboratory can perform analysis by the end of January, 1993.

* Sample preparation will be by ultrasonication rather than thermal desorption. Only approximately 20 % of attempts to tune the mass spectrometer and one of four attempts to calibrate by thermal desorption met CLP criteria. Over 95 % of tunes and all calibration attempts have met CLP criteria using GC/MS parameters employed for analysis after ultrasonication.

* The sample preparation (using ultrasonication) procedure is issued.

* The GC/MS procedure is over 95% through the issuance process and will be issued soon.

* Matrix spike recovery studies on four different sizes of concrete particles has been completed with good results. See table 1.

* Accuracy and precision data on all 34 target compounds has been generated on 4 samples of 1/16th inch concrete particles. See table 2.

TABLE 1

MATRIX SPIKE RECOVERIES AND RELATIVE PERCENT DIFFERENCES

Compound	Powder [1]		1/8	1/4	1/2	CLP Soil Limits
1,1-Dichloroethene	79/106	89/85	91/83	94/97	82/81	59 to 172
RPD	29.2	4.6	9.2	3.1	1.2	22
Benzene	86/95	86/91	94/88	112/117	85/85	66 to 142
RPD	9.9	5.6	6.6	4.4	0	21
Trichlorethene	85/108	93/90	89/85	104/100	83/79	62 to 137
RPD	23.8	3.3	4.6	3.9	4.9	24
Toluene	85/109	92/92	90/85	101/107	88/88	59 to 139
RPD	24.7	0	5.7	5.8	0	21
Chlorobenzene	90/117	93/92	91/86	104/109	91/88	60 to 133
RPD	26.9	1.1	5.6	4.7	3.3	21

1) An air bubble biased the first set data for the powder.

TABLE 2
ANALYSIS OF 1/16th INCH CONCRETE PARTICLES

Compound	Average Rec., %	RSD, %
Chloromethane	99.0	3.2
Vinyl Chloride	102	2.8
Bromomethane	96.8	2.4
Chloroethane	104	0.5
1,1-Dichloroethene	**176**	**1.2**
Carbon Disulfide	65.9	3.2
Acetone	133	21.3
Methylene Chloride	108	2.5
1,2-Dichloroethene (total)	107	2.7
1,1-Dichloroethane	109	2.0
2-Butanone	98.4	17.8
Chloroform	106	2.5
1,2-Dichloroethane	105	5.3
1,1,1-Trichloroethane	102	1.9
Carbon Tetrachloride	101	2.0
Benzene	108	2.5
Trichloroethene	**187**	**3.8**
1,2-Dichloropropane	110	4.6
Bromodichloromethane	67.4	5.2
CIS-1,3-Dichloropropene	109	5.5
TRANS-1,3-Dichloropropene	94.6	7.5
1,1,2-Trichloroethane	**28.0**	**13.5**
Dibromochloromethane	81.3	9.1
Bromoform	95.2	11.2
4-Methyl-2-Pentanone	109	10.5
Toluene	109	2.0
Tetrachlorethene	106	1.0
2-Hexanone	114	15.5
Chlorobenzene	110	3.2
Ethylbenzene	109	5.7
Xylene (total)	104	1.8
Styrene	110	2.5
1,1,2,2-tetrachloroethane	**0**	**NA**

* All internal standards within QC limits.

* All surrogate recoveries within QC limits.

* Target compound recoveries and precisions are acceptable, except: data to date shows 1,1,2-Trichlorethane may be converted to 1,1-Dichloroethene and 1,1,2,2-Tetrachlorethane may be converted to Trichloroethene. Experimental verification is under way.

Distribution:

A.V. Beard-Taylor	RL	(A6-55)
D. Brendel	CE&E	(X0-41)
R.M. Carosino	RL	(A4-52)
G.D. Carpenter	WHC	(H6-20)
C.E. Clark	RL	(A5-15)
S.B. Clifford	WHC	(H6-23)
R.E. Cordts	Ecology	
G.D. Forehand	WHC	(B2-35)
D.L. Duncan	EPA	(HW-074)
C.J. Geier	WHC	(H6-21)
J.D. Hoover	WHC	(H6-23)
R.N. Krekel	RL	(A5-15)
R.J. Landon	WHC	(H6-22)
D.W. Lindsey	WHC	(B2-35)
J.G. Lucas	WHC	(H6-04)
S.M. Price	WHC	(H6-23)
L.W. Roberts	WHC	(T3-21)
F.A. Ruck III	WHC	(H6-23)
D.J. Watson	WHC	(X0-41)
E.A. Weakley	WHC	(L6-26)
B.D. Williamson	WHC	(B3-15)
J.J. Witczak	Ecology	

GSSC RCRA UMM File, Care of S. Lijek, A4-35

ADMINISTRATIVE RECORD (300 Area Solvent Evaporator, T-3-1) [Care of EDMC, WHC (H6-08)]

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Environmental Protection Agency, Region 10, Seattle, WA, 98101 HW-106

Please send comments on distribution list to Steve Lijek (A4-35), 376-0309.