

MEETING MINUTES

Subject: 222-S Laboratory Secondary Containment Upgrades - Project W-087/W-178 Status and Issue Clarification

TO: DISTRIBUTION **BUILDING** Federal Building Cafeteria

FROM: K. S. Tollefson, WMH **CHAIRMAN** M. L. Green, RL

Department-Operation- Component	Area	Shift	Date of Meeting	Number Attending
RL Waste Program Division	700	Day	12/18/97	6

The following items were discussed during this meeting:

- **Current W-087/W-178 Project Status** - Mr. J. J. Beyer, Fluor Daniel Hanford Project Manager and Mr. M. A. Cahill, Waste Management Hanford Project Manager discussed the cave located in the T-8 tunnel. The cave contains the contaminated out-of-service process piping removed from the T-7 and T-8 tunnel as part of the W-087 Project. An inventory of the piping will be maintained in the project and facility records. A greater amount of piping was removed than originally estimated due to high dose rate and construction underruns (cost savings). The height of the piping stacked in the cave is approximately 4' and will be reflected on the as-built drawings. The cave has been covered with lead shielding. Approval for this cave was documented by the State of Washington Department of Ecology (Ecology) in a letter to Mr. T. Teynor, Director Waste Program Division, RL dated October 10, 1997 (Attachment 1). Other agreements addressed in the letter include incorporating piping cave in the 222-S Complex closure plan (as part of the revised 222-S Laboratory Complex Part B Permit application), posting of signs clearly identifying the purpose for which the area is being used, and development of a retrieval record of this package. Mr. Cahill discussed a possible coating of the floor in the T-7 and T-8 tunnels with a sprayed 90-mil "InstaCote" liner to provide a barrier between existing contamination and the operating environment. A sample of the planned material was shown to Ms. Alisa Huckaby, Ecology. This activity is dependent on the availability of project underruns.

Potential Project W-178 and 219-S operational interface issues were discussed. In order that Project W-178 not be impacted by existing 219-S System operations, a schedule identifying timeframes for emptying the 219-S System tanks has been prepared by the 222-S Laboratory. Compliance with this schedule is contingent upon resolution of multiple issues. The two primary issues include; Single Shell Tanks ability to accept 219-S System waste within the agreed upon schedule (after January 20, 1998) upon successful completion of outstanding BIO implementation items; PCB analysis and subsequent approval by EPA, on a tank-by-tank basis, that the 219-S System is not regulated for PCBs under the Toxic Substances Control Act (TSCA). A weekly interface meeting/teleconference between Single Shell Tanks and the 222-S facility is being held to discuss ongoing progress.



Mr. Beyer and Mr. Cahill showed Ms. Huckaby a photograph of a valve in the T-8 tunnel that they propose leaving installed for purposes of flushing the new process lines to lower radiation dose (Attachment 2). The new drain header is gravity-feed only, slopes away from the valve location, and leaves approximately 2" of the pipe (which is normally empty) without secondary containment. This section of pipe is located upstream of the normal flow and would therefore have limited contact with waste during routine operations. The potential exists for high-radiation dose residual solids from laboratory operations (e.g., tank farm samples from hot cells) to settle in the line, resulting in a significant increase in dose in the area. Should this occur, the process lines would be flushed via the valve. Experience has shown the benefit of being able to flush the line for dose reduction. The valve would provide an access point for pipe cleaning which would be of value for maintenance. Ms. Huckaby asked what sort of secondary containment, if any, would be provided. Mr. Cahill stated that because the potential for a leak was so small, none was planned and that the very low potential for any type of failure is far outweighed by the value of having this flush port available. It was concluded that concurrence would be sought from the independent qualified registered professional engineer (IQRPE) documenting the "value" versus "risk" in the assessment. Ms. Huckaby agreed with the recommendation, pending concurrence of the IQRPE in the assessment.

Annual Leak Test/Tank Integrity Assessment - The requirement to perform an annual leak test and a tank integrity assessment was discussed. Annual leak tests have not been performed since the start of construction for the W-087 Project. However, the 222-S Laboratory records daily tank liquid levels and alarm information on the daily operating record. Tanks 101 and 102 are scheduled to be out-of-service in the January/February, 1998 timeframe, while tank 103 will be in-service for approximately one more year. Ms. Anna Sherwood, Waste Management Hanford, proposed that daily 222-S Laboratory operating records, be certified by a IQRPE, if possible, in lieu of performing a 24-hour leak test (tank 103 is currently at its maximum operating level). Ms. Alisa Huckaby requested copies of the meeting minutes where this issue was initially discussed and agreement reached between Ecology and RL that a tank integrity assessment would not be required until completion of secondary containment upgrades (Project W-178). Attachment 3 is a copy of the requested meeting minutes. Project W-178 will perform a visual inspection, via video camera, of the inside of Tanks 101 and 102. A hydrotest may also be performed, at maximum design capacity, for these two tanks to assist the IQRPE in certifying the integrity of the tanks. If the hydrotesting is performed, liquid waste from other tanks will be used to the extent possible, in order to minimize the addition of raw water and creation of additional waste to complete this task.

Residual Sump Volumes/Low-Level Leak Detector Location for the 219-S System Tanks - The low-level leak detectors for the P6, P7, P8, and P9 Sumps which are part of the 219-S System must be raised to prevent the drain back from the sump drain line causing a continuous low-level alarm. Mr. Cahill provided a "Sump Volume Table" which provided estimated residual volumes (in gallons) remaining in each sump after pumping, estimated volumes in each sump at low-level, mid-level, and high-level leak detection. The table is summarized below:

Sump Volume Table

Sump Number	Vol. after pumping (gals)	Vol. at low level leak (gals)	Vol. at mid level leak (gals)	Vol. at high level leak (gals)
P6	0.83	1.40	6.67	No Detector.
P7	0.34	1.11	2.22	41.92
P8	0.20	0.78	3.75	4.37
P9	0.61	1.11	2.22	35.64

Ms. Huckaby agreed that proposed locations of the low-level leak detectors would be acceptable. The change in elevation of the leak detector's will be documented in the facility's revised Part B permit application.

Concurrence:

See Attachment

Ms. M. L. Greene, Department of Energy, Richland Operations Office,
Program Office

Miss D. Huckaby

Ms. A. D. Huckaby, State of Washington Department of Ecology

Concurrence:

M. L. Green

Ms. M. L. Green, Department of Energy, Richland Operations Office,
Program Office

Ms. A. D. Huckaby, State of Washington Department of Ecology

Attachment 1
Ecology Approval to Stage Out of Service Ancillary Drain
Piping in the 222-S Laboratory Service Tunnels



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

October 10, 1997

Mr. Thomas Teynor, Director
Waste Programs Division
P.O. Box 550, MSIN: S7-55
Richland, WA 99352

Dear Mr. Teynor:

Re: Request for Approval to Stage Out of Service Ancillary Drain Piping in the 222-S Laboratory Service Tunnels (WA7890008967) (TSD: TS-2-1)

The Washington State Department of Ecology (Ecology) has received and reviewed the U.S. Department of Energy's (USDOE) above-referenced request dated July 3, 1997. The letter accurately documents the agreements made regarding the staging of high dose drain piping that was removed from service in a shielded staging area within the T8 tunnel. The following items hereby outline the agreements, as well as their status:

1. The Engineering Control Notice (ECN) was issued against the facility drawings. This documents the location and configuration of the staging area.
2. The piping will be included in the 222-S Laboratory Complex closure plan, which will be addressed as part of the revised 222-S Laboratory Complex Part B Permit Application.
3. Prior to project completion, signs will be installed to clearly identify the purpose for which the area is being used. In addition, the postings require the facility manager's approval to add or remove any materials. The requirement to obtain the facility manager's approval is also included on the ECN.
4. An inventory has been developed and will be maintained for aiding in the closure of the facility. A retrieval record of this package will be developed and the location identified on the as-built drawing.
5. A letter dated July 3, 1997, documenting the previously listed agreements was generated.

Mr. Thomas Teynor

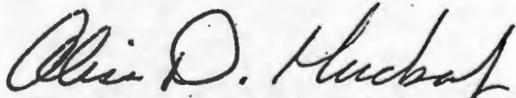
October 10, 1997

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In addition to the above agreements, Ecology requests the existence of the solid waste management unit (SWMU) be formally tracked by the Waste Information Data System (WIDS) (or any such equivalent system used to track Hanford Site SWMUs).

If you have any questions regarding this letter, please contact me at (509) 736-3034.

Sincerely,



Alisa D. Huckaby, S Plant Project Manager
Nuclear Waste Program

AH:sb

cc: Robert P. (Paul) Carter, USDOE
Cliff Clark, USDOE
Roger Gordon, USDOE
Russ Bisping, FDH
Sue Price, FDH
J.J. Beyer, FDNW
Mike Cahill, WMFSH
R.H. Engelman, WMFSH
Mary Lou Blazek, ODOE
Administrative Record: 222-S Laboratory Complex

Attachment 2
Photograph of Drain Valve in T-8 Tunnel



Attachment 3
Unit Manager Meeting Minutes Dated December 12, 1994

Attachment 1

Page 1 of 1

MILESTONE M-32-00
UNIT MANAGERS MEETING
2440 Stevens Center
Richland, Washington

December 12, 1994
8:00 a.m. to 10:00 a.m.

Agenda

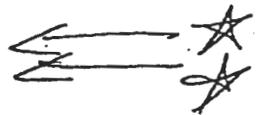
ACCOMPLISHMENTS

- a. PFP - M-32-01-T03, Completed construction of piping upgrades between 234-Z, 236-Z and 241-Z Tank System (Project C-031H).
- b. B Plant - M-32-07-T02, Submitted integrity assessment plan for tanks 25-1, 25-2, 24-1 and identified ancillary equipment.

SIGNIFICANT PLANNED ACTIVITIES

- a. T Plant - Provide response to October 18, 1994 Ecology inspection.
- b. DST - Conduct meeting with Ecology to establish new interim milestone.
- c. B Plant - Submit proposed target actions.

UM ISSUES

- a. PFP - Ecology's approval of compliance strategy/future interim milestone.
- b. 219-S - Budget cut impacts to Project W-087.
Annual leak test.
Integrity assessment schedules. 
- c. B Plant - Proposed organic tanks target actions.

Attachment 2

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MILESTONE M-32-00
UNIT MANAGERS MEETING
2440 Stevens Center
Richland, Washington

December 12, 1994
8:00 a.m. to 10:00 a.m.

Summary of Discussion, Agreements and Actions

ACCOMPLISHMENTS

An update on M-32-00 significant accomplishments during the last month was provided:

FFP - Project C-031H has been completed. Project C-031H is upgrading piping between the 236-Z, 234-5Z and 241-Z buildings (M-32-01-T03).

B Plant - The integrity assessment plan has been submitted to Ecology (M-32-07-T02).

SIGNIFICANT PLANNED ACTIVITIES

Significant planned activities for M-32-00 were outlined as:

T Plant - T Plant is drafting a response to Mr. R. W. Wilson's (Ecology) November 7, 1994 letter, which included a discussion on a repair of the 2706-T sump. ICF KEH is preparing an estimate for this repair.

Double-Shell Tanks (DST) - TWRS will continue to meeting with Ecology in separate meetings to address specific M-32-00/TWRS' issues and establish a new interim milestone. To date, two such meetings have been held; the first on November 10, 1994 and the second on December 8, 1994.

B Plant - B Plant is drafting the transmittal letters for their proposed organic waste tank change control package. (The proposed target actions are discussed below.)

UM ISSUES

FFP - Ecology was asked for their approval of the FFP compliance strategy (M-32-01-T02).

219-S - Mr. J. J. Beyer (WHC Projects) provided a description of budget cut impacts to Project W-178 (M-32-02-T01/tank upgrades) and Project W-087 (M-32-02-T02/line replacement). Budget impacts to Project W-178 appear to be minor if no further cuts are experienced. At current budget levels, Project W-087 would undergo an approximate 9 month schedule slippage as well as some loss in scope.

Budget cut figures are as follows:

Originally, \$8.9 million was requested.

Budget was reduced to \$3.3 million.

\$600 thousand is being held until mid-to-late FY 95.

Leaving \$2.64 million available Jan. 95.

Phase I of Project W-087, replacement of transfer lines from 219-S to 244-S, would most likely be completed. Completion is currently expected by calendar year 1995. Phase II, replacement of transfer lines within 222-S and between 222-S and 219-S, might be partially completed. The initial evaluation on this is that the transfers lines between 222-S and 219-S would be installed but not tied-in at either 219-S or 222-S, nor would work within 222-S be performed.

Summary of Discussion, Agreements and Actions

Page 2 of 2

Mr. J. L. Waite mentioned that we would need to reevaluate Phase II of Project W-087. Mr. Beyer agreed to investigate alternative to the work required within 222-S to see if 222-s' situation was similar to that of the 242-A Evaporator (in which Ecology made a determination that some modifications were not necessary at this time).

Another issue that was discussed was Project W-087's leak detection (continuous/24-hour detection). It was decided that a separate meeting would be scheduled to look into Project W-087's leak detection intervals.

Mr. Waite pointed out that we had until 110 days before the M-32-02-T02 interim milestone due date (Sept. 97) to make modifications to M32's schedule.

219-S' second topic dealt with this annual integrity test. Mr. M. J. Hall explained the situation which led up to TK-103 not being leak tested this year (TK-101 and TK-102 have been tested as scheduled). Basically, the activity of the waste within Tk-103 is too high to allow regular shipments (tanker truck shipments must meet DOT requirements for shipping). As shipments were not made at their usual quantities, remaining tank capacity needs to be used carefully. Leak testing, which is performed at 95% of the tank capacity, would introduce more liquid into the tank that would in turn increase the amount of high activity waste in the tank. The test water would then be at activity levels requiring restricted shipment quantities thereby multiplying the shipping problems at Tk-103. Once the transfer line to 244-S (Project W-087, Phase I) is completed, scheduled for Jan. 95, tanker truck shipments will not be required. 219-S expects to have a new SARP in place by mid-year 1995 under which the high activity waste can be shipped from TK-103. A new leak test will be performed at that time.

In 219-s' final topic, Mr. Hall requested a change in the 219-S tank system written integrity assessment frequency schedule. In the original assessment, 219-S stated that another assessment would be performed in three years. The three year interval was used due to the temporary use of wooden seismic supports. The tanks were later scheduled for upgrades (M-32-02-T01/completion date of Jan. 96). As an integrity assessment is required at the completion of the upgrade project, Mr. Hall proposed that the "three-year" assessment be postponed until then.

Action: Mr. Hall and Ms. Sherwood will schedule a separate meeting with Ecology to discuss Project W-087 leak detection.

Agreement: Mr. Wilson (Ecology) agreed with 219-S' plans to perform TK-103's leak test once the new SARP, expected mid-year 1995, is in place.

Agreement: Mr. Wilson (Ecology) agreed with 219-S' schedule change for future IAR (perform next IAR upon completion of upgrade projects W-178 and W-087).

B Plant - Mr. S. E. Killoy provided a draft copy of the proposed organic waste tank target actions to Ecology. During his review of the target actions, Mr. Killoy pointed out that proposed target action M-32-07-T04 would provide a non-pressurized "hold" or "static" leak test as the integrity test. This type of test, valid for liquid levels at or below the test levels used, would be acceptable as no further additions to the organic waste tanks would occur after the test.

During discussion on the second proposed target action, M-32-07-T05, Mr. Killoy explained that performing a chemical separation (caustic strike) of radionuclides from the waste was required to get characterization data to support an engineering study on the disposition of the organic waste. He pointed out that Treatment-by-Generator provisions did not apply as the organic waste tanks are permitted as a Treatment, Storage, and Disposal unit.

Mr. Killoy mentioned that he was preparing a letter to accompany the proposed target actions that would request Ecology's approval, by January 1995, to initiate the caustic strike prior to the proposed target actions approval.

Action: Mr. Killoy is to prepare a proposed target action transmittal letters in which he will request Ecology's approval, by January 1995, to initiate the caustic strike.

Meeting Minutes
Interim Status Dangerous Waste Tank Systems
Hanford Federal Facility Agreement and Consent Order
Milestone M-32-00

UNIT MANAGERS MEETING
2440 Stevens Center
Richland, Washington

December 12, 1994
8:00 a.m. to 10:00 a.m.

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

M. Greager

M. Greager, Contractor Representative, WHC

Date: 1/27/95

S. Kube

S. Kube, Unit Manager, RL

Date: 1/31/95

Not Present

J. Oates, Unit Manager, EPA Region 10

Date: _____

W. Wilson

W. Wilson, Unit Manager, Washington State Department of Ecology

Date: 1/31/95

Purpose: Discuss current status and issues related to Milestone M-32-00.

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

- Attachment 1 - Agenda
- Attachment 2 - Summary of Discussion, Agreements and Actions
- Attachment 3 - Attendance List
- Attachment 4 - Reference Document List
- Attachment 5 - Milestone M-32-00

DISTRIBUTION COVERSHEET

Report Name: Meeting Minutes: 222-S Laboratory Secondary
Containment Upgrades - Project W-087/W-178 Status
and Issue Clarification

Date: 3/13/98

Name	MSIN	Name	MSIN
J. J. Beyer	G3-17		
M. A. Cahill	T6-06		
R. P. Carter	S7-55		
P. K. Clark	S7-55		
C. E. Clark	A5-15		
L. D. Goodwin	T6-04		
A. D. Huckaby	B5-18		
L. F. Perkins	T6-14		
A. R. Sherwood	H6-26		
D. M. Thornton	T6-20		
K. S. Tollefson	T6-12		
S. J. Turner	T6-14		
G. J. Warwick	T6-12		
J. F. Williams	H6-24		
J. A. Winterhalder	H6-21		

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