

**START**

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

M-32 Integrity Assessment Workshop  
337 Building, 300 Area  
Hanford Site, Washington

January 12, 1995  
2:00 p.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated M-32 Integrity Assessment Workshop.

*Fenggang Ma* Date: 4/5/95  
F. Ma, Ecology

*R. W. Wilson* Date: 04/05/95  
R.W. Wilson, Ecology

*A. D. Huckaby* Date: 04/05/95  
A.D. Huckaby, Ecology

*C. O. Ruud* Date: 4/5/95  
C.O. Ruud, RL

*for Bob Gustavson per cc mail* Date: 4/8/95  
R.D. Gustavson, WHC

*K. V. Scott* Date: 4-5-95  
K.V. Scott, WHC

Purpose: Discuss UT as a method to meet the DST Integrity Assessment requirements for M-32.

Meeting minutes are attached.



## MEETING MINUTES

**Subject:** M-32 Integrity Assessment Workshop

**TO:** Distribution

**BUILDING** 337 Building

**FROM:** L. M. Dittmer  
**CHAIRMAN** R. D. Gustavson

Department-Operation- Component	Area	Shift	Date of Meeting January 12, 1995	Number Attending 8
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Attendees: L. M. Dittmer, WHC/RCRA Field Services  
 R. D. Gustavson, WHC/TWRS Environmental Engineering  
 A. D. Huckaby, WDOE  
 M. E. Lakes, WHC/TWRS Environmental Engineering  
 F. Ma, WDOE  
 C. O. Ruud, DOE-RL/TOP  
 K. V. Scott, WHC/Structural Integrity Assessment  
 E. J. Walter, WHC/Structural Integrity Assessment  
 R. W. Wilson, WDOE

The meeting started out with a tour of the double-shell tank UT mock-up. Jerry Harris of the Structural Integrity Assessment group explained the mock-up and answered questions.

Following the tour, the attendees discussed the issues of UT testing and the number of tanks to be assessed. Fenggang Ma and Bob Wilson of Ecology indicated that UT is acceptable to Ecology, although it does not meet the requirements of a leak test. Bob Gustavson and Casey Ruud agreed, and asked if those present agreed that the UT is a technically valid method of integrity assessment of the tanks. Ecology also approved the percentage of UT to be done on each tank for the integrity assessment. Fenggang Ma and Alisa Huckaby stated while they are accepting UT testing, that the direction from the Lacey office is to conduct the UT test on all 28 of the DSTs.

Keith Scott pointed out that the industry standard is a sample test. For this test, the 6 tanks proposed to be tested were chosen because the waste contained in them represent the extremes expected in these tanks. The factors include the level of corrosion inhibitors (hydroxide), phosphates, nitrates, waste heat, and the age of the tank. Casey Ruud asked Ecology if they believed the case could be made that DOE-RL/WHC criteria will adequately encompass all the variables. Fenggang Ma replied that random testing in industry is based on homogeneous solutions, and he believes that the DSTs are 28 unique tanks that should all be tested. Bob Wilson also stated that other variables should be included, such as the history of the waste types stored in each tank. Bob Gustavson indicated that the waste is segregated based on source process and other criteria. Alisa Huckaby stated that the criteria is reduced and the wastes were managed based solely on safety and compatibility. She stated she does not believe samples are necessarily representative, and that the tanks are not and have not been controlled to the intent of the regulations. Keith Scott stated that a mistrust of operations is difficult to argue with, and suggested that we schedule a test of the 6 proposed tanks, evaluate the results, and decide if it is appropriate to test additional tanks.

Alisa Huckaby stated that she has checked with other DOE sites and state agencies regarding integrity assessment methods of similar tanks systems. She indicated that Savannah River does not regulate their tanks under RCRA, so integrity assessments are not required. She hasn't heard from West Valley. Her information from other state agencies was limited. Some tracer tests and/or buoyancy considerations were mentioned. None of this information could be used as a precedent for this situation.

Several options were identified for consideration:

- 1) Do nothing,
- 2) Test all 28 tanks,
- 3) Identify that we will test 28 tanks; reassess need for all 28 after 6 are tested,
- 4) Identify that we will test 6 tanks, and if there are any problems, evaluate further testing,
- 5) Test 6 tanks and small portions of other DSTs.

Bob Wilson indicated he liked option #3, with expanded criteria. Fenggang Ma emphasized that he did not feel that reduced testing is appropriate, since the tank wastes are not homogeneous. Keith Scott indicated that the results of the UT test on the 6 tanks will be evaluated by an independent panel of certified professional engineers, who will evaluate the integrity assessment of all 28 DSTs based on those results.

It was agreed by Ecology to discuss this with their upper management, but the Ecology staff present preferred the testing of all 28 tanks, with a re-evaluation to be conducted after the first 6 tanks are completed to determine if it is beneficial or necessary to test the remaining tanks.

DOE-RL and WHC will be waiting for a letter from Ecology indicating that it is recognized that a standard leak test cannot be done on these tanks, and that UT is acceptable for the integrity assessment. WHC and RL will draft interim M-32 TPA Milestones to reflect the schedule for Option #3 above for negotiation within the TPA process.

Mel Lakes and Bob Gustavson provided Ecology with a description of the material balance leak detection method used during waste transfers at TWRS, as requested in the December 8, 1994, M-32 meeting.

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