

+U.S. Department of Energy
Office of River Protection

0073079

P.O. Box 450
Richland, Washington 99352

00-OSD-076

JUL 18 2000

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504

RECEIVED
JUN 25 2007

EDMC

Dear Mr. Wilson:

TRANSMITTAL OF PROPOSED ADDITION TO THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) INTERIM MILESTONES M-42-10 THROUGH M-42-24

- References:
1. DSI from R. D. Morrison to Distribution, "Approved Hanford Federal Facility Agreement and Consent Order Change Request M-42-95-01," dated December 5, 1995.
 2. Administrative Order, D. Silver, Ecology, to K. A. Klein, RL, R. T. French, ORP, and M. Delozier, CHG, "Failure to Comply with Major Milestone M-32 of the Tri-Party Agreement; Administrative Order No. 00NWPKW United States Department of Energy 00NWPKW-1250," dated June 13, 2000.
 3. Administrative Order, D. Silver, Ecology, to K. A. Klein, RL, R. T. French, ORP, and M. Delozier, CHG, "Failure to Comply with Major Milestone M-32 of the Tri-Party Agreement; Administrative Order No. 00NWPKW United States Department of Energy 00NWPKW-1251," dated June 13, 2000.
 4. RL letter from G. H. Sanders to D. Silver, Ecology, "Election to Exercise Dispute Resolution Rights Under Article VIII of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) in Response to Notice of Penalty (NOP) Incurred and Due No. 00NWPKE-1249 and Administrative Order (Order) No. 00NWPKW-1251," 00-ORL-065, dated June 20, 2000.

This letter transmits the attached Tri-Party Agreement Change Control Form M-42-00-01, which proposes the addition of interim Milestones M-42-10 through M-42-24. This Change Request (CR) was created in order to comply with the State of Washington Department of Ecology (Ecology) Administrative Order No. 00NWPKW-1250 and -1251. The adaptation of these

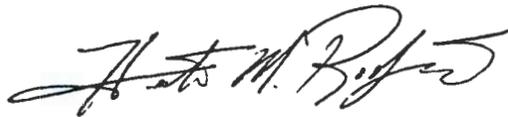
JUL 18 2000

directives into the M-42 series will allow the U.S. Department of Energy, Office of River Protection (ORP) to integrate those actions that are listed within the order into the Tri-Party Agreement. Final closure of Milestone M-42-00 remains as to-be-determined (Reference 4). When completing this CR package, ORP translated the actions of the Administrative Order into this CR in their entirety, except for (1) Milestone M-42-12(a) and (b) which was previously agreed to by Mr. Bob Wilson on May 25, 2000, and (2) Milestone M-42-23(e)(10) was changed to require the Independent, Qualified, Registered Professional Engineer to comply with Washington Administrative Codes WAC173-303-040, WAC173-303-640, and WAC173-303-810.

It is ORP's intent that the establishment of these interim Milestones will satisfy the requirements of the Administrative Orders from Ecology (References 2 and 3).

The point-of-contact for this matter is Dana Bryson, the Director of the Operations Support Division, (509) 372-0947.

Sincerely,



Hector Rodriguez, Acting Program Manager
Office of Regulatory Liaison

OSD:RGH

Attachment

cc: W. Burke, CTUIR
P. Sobotta, NPT
R. Jim, YN
W. T. Dixon, CHG
C. C. Haass, CHG
P. C. Miller, CHG
M. J. Riess, CHG
S. J. Bensussen, CHG
E. A. Fredenburg, CHG
S. L. Dahl, Ecology
D. Silver, Ecology
R. F. Stanley, Ecology
T. Valero, Ecology
D. R. Sherwood, EPA
J. S. Hertzell, FHI
D. J. Washenfelder, FHI
M. B. Reeves, HAB
M. L. Blazek, OOE
D. E. Jackson, RL
H. M. Rodriguez, RL
Administrative Record

Change Number M-42-00-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date July 10, 2000
---	---	-------------------------------------

Originator **USDOE** Phone **376-4026**

Class of Change I - Signatories II - Executive Manager III - Project Manager

Change Title **Add Tri Party Agreement Interim Milestones M-42-10 through M-42-24.**

Description/Justification of Change

This change request is created in order to comply with the Ecology Administrative Order No. 00NWPKW-1250; -1251 dated June 13, 2000. This administrative order establishes additional milestones that were created for additional DST integrity assessments by September 30, 2007.

Compliance Issue Description

On October 12, 1999, Ecology initiated an inspection into the completion of M-32. The findings from this inspection resulted in the conclusion by Ecology that the USDOE failed to complete the DST integrity assessments as recommended by the Tank Structural Integrity Panel and the requirement of Article VII within the Tri Party Agreement with respect to completion of major Tri Party Agreement milestone M-32. This inspection resulted in creation of an Administrative Order that was jointly developed by Ecology, USDOE and contractor personnel. USDOE intends to completely adopt the actions set forth in this order in the following interim milestones.

In light of the preceding, Ecology and DOE agree as follows:

A. That Tri Party Agreement interim milestones are added to complete the following:

(cont.)

Impact of Change
This change will add the appropriate milestones to address the completion of the additional DST integrity assessments prior to the final closure of M-42-00.

Affected Documents
Hanford Federal Facility Agreement and Consent Order as amended.

Approvals		
<u>Ann. B. Sidban</u>	<u>7-18-00</u>	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved
DOE	Date	
_____	_____	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
EPA	Date	
_____	_____	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
Ecology	Date	

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 2 of 8

B. That the following new Tri Party Agreement requirements are established by approval of this M-42-00-01 change request:

M-42-10: Complete Identification of all components compromising the DST system: September 17, 2000

Identify all components compromising the DST system, based on the RCRA TSD boundary of the DST system incorporated in the final status RCRA Part B Permit.

The Double-Shell Tank System is comprised of the twenty-eight (28) DST's and their ancillary equipment. Ancillary equipment within the DST system includes all subordinate tank systems and their vaults, transfer pipelines, pump pits, valve pits, lift stations, catch tanks, the 204-AR Unloading Station, and any other component necessary to treat, store, or transfer, hazardous and/or mixed waste, within the RCRA permitted boundaries of the DST system. This report shall include a map and description defining the RCRA TSD boundary of the DST system proposed for final status RCRA permitting. The description of all DST system components within this required report shall identify, by name, equipment number, and location, all components of the DST system. This description shall include a tabular presentation including, but not limited to all underground storage tanks, above ground storage tanks, transfer pipelines, valve & pump pits, secondary containment structures, and tanks within vaults, double contained receiver tanks, and any other component of the DST system, that has been, or may be, used for transferring, storing, or treating, wastes.

**M-42-11: Submit to Ecology a report assessing technology development: September 17, 2000
& Every six (6) months until equipment is deployed**

Develop ultrasonic testing equipment, or an equivalent technology, for assessing material thickness and defects of the predicted maximum stress region of the lower knuckle base metal of double-shell tanks.

This report shall include the cost of development of this equipment, identification of vendors contracted for developing such equipment, technical specifications for such equipment, data quality requirements for such equipment, and an estimated schedule for delivery, and deployment of the equipment, into the DST's. This report shall be updated and submitted to Ecology by March 31, 2001, with subsequent updates submitted to Ecology every six (6) months thereafter, until such equipment is developed and deployed.

M-42-12: Issue report for two (2) DST's not previously examined: September 17, 2000

Issue ultrasonic testing report of the primary tank walls in two (2) DST's not previously examined by ultrasonic testing.

This report shall include a copy of the original ultrasonic testing data report and a tabular summary of observations made during ultrasonic testing, including average and minimum wall thickness, of a continuous scan of the vertical wall of each DST. The observations from this continuous scan may be reported in 12" high by 15" wide segments that are adjoining, or overlapping, so long as the total of all segments comprise the entire length and width of the ultrasonic examination scan of the vertical wall. This report shall include size of pits, cracks, and other relevant information, as determined by a technical expert qualified, trained, and experienced, in interpreting ultrasonic data as a Non-destructive Examination (NDE) Level III Inspector. Specific requirements for this vertical wall scan are described below. This report shall also include a comparison between the ultrasonic data obtained to specified material thickness, material specifications, and construction standards and codes. This report shall include a listing and evaluation of wall thinning, pitting, or cracks in excess of 50% of the acceptance criteria values in Table 1 of the Acceptance Criteria for Non-Destructive Examination of Double-Shell Tanks (WHC-SD-WM-AP-036, Rev.0). This report shall include a summary review and interpretation of data by a technical expert qualified, trained, and experienced in interpreting ultrasonic data as a Non-destructive Examination (NDE) Level III Inspector. This report shall include a schedule identifying each of four (4) more DST's, not previously examined by ultrasonic testing, for completion of ultrasonic testing by September 30, 2001. Selection of the tanks to be examined may utilize either the tank selection criteria established in the document Description of Double-Shell Tank Selection Criteria of Inspection (WHC-SD-WM-ER-529), or as recommended to Ecology by written request from the USDOE, describing the rationale for tank selection, for approval by Ecology. The selection of any DST to be ultrasonically examined may be altered

Draft
Hanford Federal Facility Agreement and Consent Order
Change Control Form M-42-00-01
July 10, 2000
Page 3 of 8

upon a request by the USDOE providing an explanation of the rationale for the change and subsequent approval of this request by Ecology. This ultrasonic testing shall be performed in at least the following areas of each DST selected for examination:

- a. Examination of a least a 30 inch wide vertical scan of the entire height of the exterior side of the primary tank walls, within the limits of the equipment employed, to include the interface between the waste level within the tank, and the vapor space above the waste.
- b. Examination of the entire length of one vertical weld and adjacent heat affected zones in each shell course from the top edge of the lower knuckle up to and including 12 inches above the bottom of the thinnest vertical wall plat (3/8" of 1/2" nominal wall thickness whichever is less), 12 inches above the highest static waste level that existed for any five year period, or a total distance of 20 feet, whichever is greatest.
- c. Examination of a 2-foot length of the circumferential weld joining the transition plate with the lower knuckle including the adjacent heat-affected zones within the limits of the equipment deployed.
- d. All weld examinations shall include examination of the heat-affected zone on both sides of all weldments.
- e. Data gathered from the ultrasonic examinations shall be evaluated against the specified material thickness, applicable material specifications, and construction standards and codes.
- f. Data gathered from the ultrasonic examinations shall also be compared between all tanks examined, to determine the range of material thinning among the tanks examined.

Note: Any video surveillance employed in support of this ultrasonic examination shall be retained in the facility's Operating Record and be available upon request by Ecology.

M-42-13: Submit to Ecology a report summarizing the history of corrosion inhibitors: September 17, 2000

Issue a summary report of the history and current status of maintenance of corrosion inhibiting chemical adjustments (corrosion specifications) of the waste contained in each of the twenty-eight (28) DST's.

This summary shall include a description of the chemical adjustment specifications required to retard corrosion, including the technical justification for these specifications. This summary shall include a description of all corrosion mechanisms (i.e. stress-corrosion cracking) impacted by maintenance of corrosion inhibiting chemical adjustments. This summary shall include a description of the effects of temperature on the effectiveness of corrosion inhibiting chemical adjustments, a tabular listing of the tank wastes temperature within each DST, and a description of the temperature monitoring equipment active in each DST.

M-42-14: Submit to Ecology a plan for visual examination of DST's: September 17, 2000

Submit a plan to Ecology specifying the frequency and conditions under which visual examination by remote camera surveillance will be conducted from the inside of any DST primary tank, scope of such examination, requirement for record storage, method of promulgating requirements for such visual examinations and requirements for documentation, and remedy for any significant structural deficiencies observed.

The purpose of this visual examination is to assess any visible degradation, of the inside of the primary tank structure of any DST subject to such examination, when operational conditions provide the opportunity to view these areas. A DST examined pursuant to this plan will not require subsequent examination, unless the USDOE is directed otherwise by Ecology. All examinations conducted pursuant to this plan shall be reported to Ecology within sixty (60) days of completion of each visual examination. This visual examination shall include the maximum area visible with the best available video equipment used in remote field application in the tank farms. These visual examination shall include interior tank walls, tank bottoms, if exposed, tank waste/vapor interface areas when tank bottoms are not exposed, and the dome structure. All videotapes from visual examination shall be maintained in the facility's Operating Record, and be available to Ecology upon request.

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 4 of 8

Upon review of this plan by Ecology, the USDOE shall make any required revisions and re-submit the plan to Ecology within thirty (30) days of receipt of Ecology's review. If the second review of a revised plan is unacceptable, Ecology may revise the plan and return it to the USDOE for implementation. This plan will be implemented by the USDOE within sixty (60) days, upon approval by Ecology. These visual examinations may not be required during emergency pumping operations, or for documented and legitimate safety concerns, upon concurrence with Ecology.

M-42-15: Submit to Ecology a plan for visual examinations of the exterior of transfer piping: September 17, 2000

Submit a plan specifying requirements for visual examination of the exterior of transfer piping (or transfer piping encasement when the primary piping is enclosed with secondary containment), when exposed during construction, or other activities.

The purpose of this visual examination will assess any visible degradation of pipelines. This plan shall specify scope of examination, documentation of findings and conclusions from examinations, record storage location, and method of promulgating requirements for such examinations. Upon review of this plan by Ecology, the USDOE shall make any required revisions and re-submit the plan to Ecology within thirty (30) days of receipt of Ecology's review. If the second review of a revised plan is unacceptable, Ecology may revise the plan and return it to the USDOE for implementation. This plan will be implemented within sixty (60) days, upon approval by Ecology. All visual examinations shall be documented and recorded on videotape. The documentation and videotapes from visual examination shall be maintained in the facility's Operating Record, and be available to Ecology upon request. These visual examinations may not be required during emergency pumping operations, or for documented and legitimate safety concerns, upon concurrence with Ecology.

M-42-16: Submit to Ecology a disposition plan for DST components post 2005: December 16, 2000

Submit a written report to Ecology, documenting all of the following: A tabular listing describing the disposition of all double-shell tank transfer system components that will not remain in use beyond June 30, 2005.

This listing shall describe when each component will be officially removed from service. This listing shall provide a description of the disposition, for approval by Ecology, of each component upon removal from service including the following:

- a. Stabilization (i.e., liquids and waste removed within twelve (12) months, or sooner, from the date of removal from service).
- b. Isolation (i.e., administrative and/or engineering controls in place to prevent use within twelve (12) months, or sooner, from the date of removal from service).
- c. Monitoring (i.e., equipment and frequency to be employed to ensure each component remains free of liquids and waste upon removal from service, to be in place within twelve (12) months, or sooner, from the date of removal from service).
- d. A description of the final disposition of each component upon removal from service (i.e., inclusion within a RCRA Closure Plan).

M-42-17: Submit to Ecology the results of Ultrasonic testing of misc. waste tanks: July 18, 2001

Submit a written report to Ecology documenting the following: Results of ultrasonic testing, or other testing as agreed upon with Ecology, of the primary tank walls of waste storage tanks within the 204-AR Unloading station, A-350 Lift station, 244-S Doubled-contained receiver tank, and AZ-151 Catch tank.

This ultrasonic testing shall include a scan at least 12 inches wide of the vertical primary wall of each tank examined. If conditions within any tank structure prevent a continuous wall examination, a spot check of wall thickness along the vertical axis of the tank, at intervals no greater than 6 inches, may be employed, upon prior approval by Ecology. This report shall include a copy of the original ultrasonic testing data reports and a tabular summary of thickness measurements and other observation made during ultrasonic testing. This report shall include a comparison between other observation made during

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 5 of 8

ultrasonic data obtained to specified material thickness, material specifications, and construction standards and codes. This report shall include a listing of any defects exceeding nominal wall thickness. This report shall include a summary review and interpretation of data by a technical expert qualified, trained and experienced in interpreting ultrasonic data as a Non-destructive Examination (NDE) Level III Inspector.

This report shall include results of static leak tests of the primary tank for the following:

- a. Double Contained Receiver tanks: 244-BX, 244-TX and 244-A
- b. Catch Tanks: 241-ER-311, S-304, U-301B, TX-302C, AX-152, AZ-151 and UX-302A
- c. 204-AR Unloading Station
- d. A-350 Lift Station

Note: Any video surveillance employed in support of this ultrasonic inspection shall be retained in the facility's Operation Record, and be available upon request by Ecology.

M-42-18: Submit results of (4) DST's not previously examined:

September 30, 2001

Submit a written report to Ecology documenting results of ultrasonic testing of the primary tank walls in four (4) DST's not previously examined by ultrasonic testing.

This report shall meet all the requirements and conditions set forth in interim Milestone M-42-12. This report shall include a schedule identifying each of four (4) additional DST's, not previously examined by ultrasonic testing, for completion by September 30, 2002.

M-42-19: Submit results of (4) DST's not previously examined:

September 30, 2002

Submit a written report to Ecology documenting results of ultrasonic testing of the primary tank walls in four (4) DST's not previously examined by ultrasonic testing.

This report shall meet all the requirements and conditions set forth in interim Milestone M-42-12. This report shall include a schedule identifying each of four (4) additional DST's, not previously examined by ultrasonic testing, for completion by September 30, 2003.

M-42-20: Submit results of (4) DST's not previously examined:

September 30, 2003

Submit a written report to Ecology documenting results of ultrasonic testing of the primary tank walls in four (4) DST's not previously examined by ultrasonic testing.

This report shall meet all the requirements and conditions set forth in interim Milestone M-42-12. This report shall include a schedule identifying each of four (4) additional DST's, not previously examined by ultrasonic testing, for completion by September 30, 2004.

M-42-21: Submit results of (4) DST's not previously examined:

September 30, 2004

Submit a written report to Ecology documenting results of ultrasonic testing of the primary tank walls in four (4) DST's not previously examined by ultrasonic testing.

This report shall meet all the requirements and conditions set forth in interim Milestone M-42-12. This report shall include a schedule identifying each of four (4) additional DST's, not previously examined by ultrasonic testing, for completion by September 30, 2005.

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 6 of 8

M-42-22: Submit results of (4) DST's not previously examined:

September 30, 2005

Submit a written report to Ecology documenting results of ultrasonic testing of the primary tank walls in four (4) DST's not previously examined by ultrasonic testing.

This report shall meet all the requirements and conditions set forth in interim Milestone M-42-12.

M-42-23: Submit Integrity Report for the Double-Shell Tank System:

March 31, 2006

Submit a written Integrity Assessment Report for the Double-Shell Tank System, to Ecology documenting the following: An assessment of the integrity of the Double-Shell Tank System. The Double-Shell Tank System is comprised of the twenty-eight (28) DSTs and their ancillary equipment.

Ancillary equipment within the Double-Shell Tank System includes all subordinate tank systems and their vaults, transfer pipelines, pump pits, valve pits, lift stations, catch tanks, the 204-AR unloading Stations, and any other active components identified in interim milestone M-42-10. This integrity assessment shall be completed, documented in a report to Ecology, and certified by an Independent, Qualified, Registered, Professional Engineer (IQRPE), on or before March 31, 2006. This Integrity Assessment Report shall include information and data sufficient to determine that the Double-Shell Tank System is fit-for-use, and will not collapse, rupture, or fail, under normal operating conditions. This report shall be accompanied by a schedule and recommendations for future integrity assessments sufficient to ensure the system will not collapse, rupture, or fail, under normal operating conditions.

This Integrity Assessment Report shall document, at a minimum, all information gathered for the Double-Shell Tank System to meet the requirements of 40 CFR, Subpart J, Part 265.191 (1), (2), (3), (4), (5)(I) and (5)(ii), including the following:

- a. 40 CFR 265.191 (1) – Design Standards: A thorough description of the materials used in construction, construction methods employed, quality control, and testing performed on materials, and the final structure, prior to being placed in service, all engineering codes referenced for construction, design operating specifications, and a presentation of all calculations employed to determine each structure's design strength, and useful life. An evaluation of the design life of each DST shall be described, based on all ultrasonic data gathered, waste compatibility with the materials of construction, history of corrosion protection, operational history, visual examinations, and any other sources of tank integrity assessment information gathered, as required in milestone M-42-12, for each tank.

This report shall include, at a minimum, a tabular listing by component equipment number, of all transfer pipelines within the DST system, describing the materials of construction, and compliance with secondary containment requirements.

- b. 40 CFR 265.191 (2) – Hazardous characteristics of the wastes that have been, or will be handled: A thorough presentation describing the compatibility of the waste stored in each tank with the tank structure and materials. This presentation shall include the following at a minimum: Waste chemical characteristics and properties such as corrosivity, temperature, homogeneity, organic content, specific gravity, gas retention & generation, flammability, and a comparison between the waste currently stored and/or proposed to be stored, in each tank to the design operating specifications for each tank.
- c. 40 CFR 265.191 (3) – Existing corrosion protection measures: A thorough description and history of all corrosion protection measures employed for all transfer systems (i.e., caustic flushes), and within each DST since completion of construction. This history shall include a description of all sampling and analysis performed to monitor the status of corrosion inhibitor adjustments to the chemical composition of the waste within each DST, or transferred through DST system transfer lines.
- d. 40 CFR 265.191 (4) – Documented age of the tank system: The age of each active component of the DST system, including the DST's and their ancillary equipment, as described in milestone M-42-10, shall be described, including the completed construction date, the date placed in service, and date each DST first received waste.

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 7 of 8

- e. 40 CFR 265.191 (5) – Results of a leak test, internal inspection, or other tank integrity examination for each tank, shall include the following:

40 CFR 265.191 (5)(i) – Examination of the primary tank of each of the twenty-eight (28) DST's by ultrasonic testing as described in milestone M-42-12, and results of ultrasonic testing of the following:

1. Examination of a 20 foot long circumferential scan of six (6) DST's at a location in the vertical portion of the primary tank wall corresponding to a static liquid/vapor interface level, that existed in any given DST, for any five (5) year period, within its operational history. This examination shall extend 12 inches above the highest static liquid/vapor interface level that existed in any given DST for any five (5) year period within its operational history, within the limits established in the document Description of Double Shell-Tank Selection Criteria for Inspection (WHC-SD-WM-ER-529), or as recommended to Ecology by written request from the USDOE, describing the rationale for tank selection, and as approved by Ecology. Finding and conclusions from this examination data may necessitate examination of additional DST's in this area, or may be required upon review of this Integrity Assessment Report by Ecology.
2. Examination of a 20 foot long circumferential scan of the predicted maximum stress region of the lower knuckle base metal of six (6) DST's as selected per the selection criteria within the Description of Double-Shell Tank Selection Criteria for Inspection (WHC-SD-WM-ER-529), or other selection criteria as approved by Ecology. Finding and conclusions from this examination data may necessitate examination of additional DST's in this area, or may be required upon review of this Integrity Assessment Report by Ecology.
3. Examination of tank bottoms through accessible air slots of six (6) DST's, as selected per the selection criteria, within the Description of Double-Shell Tank Selection Criteria for Inspection (WHC-SD-WM-ER-529), or other selection criteria as approved by Ecology. This examination shall include all areas accessible within the limits of the best available equipment and shall extend at least ten (10) feet towards the center of the tank from the lower knuckle joint, unless a different scope of examination is approved by Ecology due to constraints and conditions encountered in the tank annulus and air slots. Findings and conclusions from this examination data may necessitate examination of additional DST's in this area, or may be required upon review of this Integrity Assessment Report by Ecology.
4. Data gathered from all ultrasonic examinations of all DST's shall be compared to the corresponding areas of all DST's examined to determine the range of material thinning among the DST's examined.
5. Data gathered from all ultrasonic testing examination required within milestone M-42-12 shall include a review and interpretation by a technical expert qualified, trained and experienced in interpreting ultrasonic data as a Non-destructive Examination (NDE) Level III Inspector.
6. This Integrity Assessment Report shall include results from examinations of the tank systems listed in milestone M-42-12.
7. All results from examinations, not subject to the specific requirements of this Milestone, of failed equipment removed from each DST, corrosion probes existing in each tank, results of testing on simulated tank structures, or materials, and studies of the effects of waste stored within each tank on the tank's materials of construction, shall be incorporated in the assessment report for each DST examined. All corrosion studies of any transfer pipelines shall be included in this Integrity Assessment Report. This Integrity Assessment Report shall include a schedule for continuing integrity assessments of DST transfer system components sufficient to ensure they will not collapse, rupture or fail under normal operating conditions.
8. Leak and/or pressure testing regimen and specifications for all transfer systems.

Draft

Hanford Federal Facility Agreement and Consent Order

Change Control Form M-42-00-01

July 10, 2000

Page 8 of 8

9. A summary, in tabular form or otherwise, of the observations and conclusions from all visual examinations by direct observation or remote camera surveillance, taken within the annuli of each DST. This summary shall include observations and conclusions from all visual examinations by direct observation or remote camera surveillance, taken within DST system ancillary equipment (i.e., valve pits, pump pits, double-contained receiver tanks, catch tanks, transfer pipelines). All videotapes from remote camera surveillance shall be retained in the facility's Operating Record and available to Ecology upon request.
10. 40 CFR 265.191(5)(ii) – Certification by an Independent, Qualified, Registered, Professional Engineer (IQRPE): This Integrity Assessment Report shall be certified by an IQRPE that meets Washington Administrative Codes WAC173-303-040, WAC173-303-640, and WAC173-303-810.

M-42-24: Submit a report to Ecology for the re-examination of six (6) DST's by ultrasonic testing:

September 30, 2007

Submit a written report for the re-examination of six (6) DST's by ultrasonic testing in all areas previously examined to provide comparative data from which to calculate corrosion rates in each of the six (6) DST's examined.

Selection of the tanks to be re-examined may utilize the tank selection criteria established in the Description of Double-Shell Tank Selection Criteria for Inspection (WHC-SD-WM-ER-529) or other criteria as approved by Ecology. The selection of each DST to be re-examined shall consider elapsed time from previous ultrasonic testing, sufficient to assess measurable wall thinning with the ultrasonic equipment used. Re-examination of the predicted maximum stress region of the lower knuckle base metal may not be required, if prior approval is obtained from Ecology for deleting this portion of the ultrasonic re-examination. This report shall provide a calculated corrosion rate for each DST, include all calculations, include a thorough description of all terms and/or factors used in the calculations, and include a thorough reference section of all codes, studies and assumptions, used in deriving the calculated corrosion rate for each of the DST's selected.

- C. That DOE's Assistant Manager for TWRS will forward progress reports to Ecology as directed in the milestones listed.

NOTE:

Final closure of milestone M-42-00 remains as TBD (reference: Change Request M-42-95-01). When completing this change request package, USDOE translated the actions of the Administrative Order into this change request in their entirety except for except for (1) Milestone M-42-12(a) and (b) which was previously agreed to by Mr. Bob Wilson on May 25, 2000, and (2) Milestone M-42-23(e)(10) was changed to require the Independent, Qualified, Registered Professional Engineer to comply with Washington Administrative Codes WAC173-303-040, WAC173-303-640, and WAC173-303-810.

References

1. Administrative Order, D. Silver, Ecology to R. French, ORP, K. Klein, RL and M. Delozier, CHG dated June 13, 2000.
2. Letter, G. Sanders, RL to D. Silver, Ecology: Election to Exercise Dispute Resolution Rights under Article VIII of the Hanford Federal Facility Agreement and Consent Order, dated June 20, 2000.