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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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December 11, 2018

18-NWP-199

By certified mail

Mr. Brian T. Vance, Manager  
Office of River Protection  
United States Department of Energy  
PO Box 450, MSIN: H6-60  
Richland, Washington 99352

Mr. John R. Eschenberg  
President and Project Manager  
Washington River Protection Solutions, LLC  
PO Box 850, MSIN: H3-21  
Richland, Washington 99352

Re: Dangerous Waste Compliance Inspection on August 13, 2018 at Double Shell Tank System (DST) & 204-AR-WUS, RCRA Site ID: WA7890008967, NWP Compliance Index No 18.647

Dear Brian T. Vance and John R. Eschenberg:

Thank you for your staff's time during the DST System & 204-AR-WUS inspection on August 13, 2018. The Department of Ecology's (Ecology) compliance report of this inspection is enclosed. The report cites no areas of non-compliance and no concerns.

Specific deficiencies or violations not listed in the enclosed compliance report do not relieve your facility from having to comply with all applicable regulations.

If you have questions or need further information, please contact me at (509) 372-7890 or [kathy.conaway@ecy.wa.gov](mailto:kathy.conaway@ecy.wa.gov).

Sincerely,

Kathy Conaway  
Dangerous Waste Compliance Inspector  
Nuclear Waste Program

so

Enclosure

cc: See page 2



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Brian T. Vance and John R. Eschenberg  
December 11, 2018  
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18-NWP-199  
DST System  
RCRA Site ID: WA7890008967  
NWP Compliance Index No.: 18.647  
Inspection Date August 13, 2018

cc electronic w/enc:

Dave Bartus, EPA  
Jack Boller, EPA  
Dave Einan, EPA  
Bryan Trimberger, USDOE-ORP  
Holly Bowers, WRPS  
Eric Van Mason, WRPS  
Jeff Voogd, WRPS  
ERWM Staff, YN  
Ken Niles, ODOE  
Shawna Berven, WDOH  
John Martell, WDOH  
Kathy Conaway, Ecology  
Suzanne Dahl, Ecology  
Jeff Lyon, Ecology  
Jared Mathey, Ecology  
Alex Smith, Ecology  
Cheryl Whalen, Ecology  
Kristi, Wold, Ecology  
Environmental Portal  
Hanford Facility Operating Record  
USDOE-ORP Correspondence Control  
USDOE-RL Correspondence Control  
WRPS Correspondence Control

cc w/enc:

Susan Leckband, HAB  
Hanford Administrative Record  
NWP Central File  
NWP Compliance Index File: 18.647

cc w/o enc:

Matt Johnson, CTUIR  
Jack Bell, NPT  
Alyssa Buck, Wanapum  
Laurene Contreras, YN





**Washington Department of Ecology  
Nuclear Waste Program  
Compliance Report**

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**Site:** Double Shell Tank System / 204-AR  
**RCRA Site ID:** WA7890008967  
**Inspection Date:** August 13, 2018  
**Site Contacts:** Holly Bowers, Washington River Protection Solutions LLC (WRPS)  
Jeff Voogd, Environmental Compliance, WRPS  
Brian Trimberger, United States Department of Energy – Office of  
River Protection (USDOE-ORP)  
**Phone:** (509) 373-0333, Holly Bowers  
(509) 373-4101, Jeff Voogd  
(509) 376-2674, Brian Trimberger  
**Site Location:** Hanford Site, 200 East and 200 West Areas  
**At This Site Since:** April, 1971 **NAICS#:** 924110, 56221, and 54171  
**Current Site Status:** Large Quantity Generator

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**Ecology**

**Lead Contact:** Kathy Conaway **Phone:** (509) 372-7890 **FAX:** (509) 372-7971  
**Other Representatives:** Jared Mathey (Support Inspector)  
**Report Date:** December 11, 2018  
**Report By:** Kathy Conaway

*Kathy Conaway*  
(Signed)

*12/11/2018*  
(Date)

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**Site Location**

The Hanford Site was assigned a single United States Environmental Protection Agency (EPA) identification number, and is considered a single Resource Conservation and Recovery Act of 1976, as amended, (RCRA) facility even though the Hanford Site contains numerous processing areas spread over a large geographic area. The Hanford Site is a tract of land approximately 580 square miles and is located in Benton County, Washington. This site is divided into distinct Dangerous Waste Management Units (DWMUs) which are administratively organized into "unit groups." A unit group may contain only one DWMU or many; currently, there are 33 unit groups at the Hanford Site. Individual DWMUs utilize a small portion of the Hanford Site. Additional descriptive information on the individual DWMUs is contained in unit group permit applications and in Parts III, V, and VI of the Hanford Facility RCRA Permit, Dangerous Waste Portion, WA7890008967, Revision 8C (hereafter referred to as the Permit).

**Owner and Operator Information**

USDOE is the owner and operator of the Double Shell Tank (DST) System and 204-AR Waste. WRPS has a contract with USDOE to co-operate the DST System and 204-AR.



### Facility Background

WRPS manages both dangerous waste and mixed waste generated at the DST System and 204-AR Waste Unloading Station (WUS). I observed the following in the *Dangerous Waste Permit Application, DST System/204-AR WUS, Part A Form, Revision 4*, dated October 13, 2009 (DST Part A Form):

The Double-Shell Tank (DST) System began operations between April 1971 and October 1986 (Table 1). The DST System is used for receipt and the storage (S02) of liquid mixed waste generated on the Hanford Facility. Two operating units, one in the 200 East (242-A Evaporator) and one in the 200 West Area (222-S Laboratory) directly transfer liquid mixed waste through buried double-encased transfer lines to designated underground DSTs. Additionally, the DST System receives liquid mixed waste via temporary transfer lines from the Single-Shell Tank (SST) System, tank truck transfers (bulk chemical for corrosion control or mixed waste meeting the DST System waste acceptance criteria).

**Note:** The unit groups associated with each facility is as follows, 242-A Evaporator, 222-S Laboratory, and the SST System.

The 28 DSTs on the Hanford Site are listed below (See Table 1).

<b>Table 1: Double Shell Tank Systems</b>			
<b>200 West Area</b>			
<b>DST Name</b>	<b>Capacity (L)</b>	<b>Began Operation</b>	<b>Aging or Non-Aging</b>
241-SY-101	4,542,480	April 1977	Non-Aging Waste
241-SY-102	4,542,480	April 1977	Non-Aging Waste
241-SY-103	4,542,480	April 1977	Non-Aging Waste
<b>200 East Area</b>			
<b>DST Name</b>	<b>Capacity (L)</b>	<b>Began Operation</b>	<b>Aging or Non-Aging</b>
241-AN-101	4,542,480	September 1981	Non-Aging Waste
241-AN-102	4,542,480	September 1981	Non-Aging Waste
241-AN-103	4,542,480	September 1981	Non-Aging Waste
241-AN-104	4,542,480	September 1981	Non-Aging Waste
241-AN-105	4,542,480	September 1981	Non-Aging Waste
241-AN-106	4,542,480	September 1981	Non-Aging Waste
241-AN-107	4,542,480	September 1981	Non-Aging Waste
241-AP-101	4,795,460	October 1986	Non-Aging Waste
241-AP-102	4,795,460	October 1986	Non-Aging Waste
241-AP-103	4,795,460	October 1986	Non-Aging Waste
241-AP-104	4,795,460	October 1986	Non-Aging Waste
241-AP-105	4,795,460	October 1986	Non-Aging Waste
241-AP-106	4,795,460	October 1986	Non-Aging Waste
241-AP-107	4,795,460	October 1986	Non-Aging Waste
241-AP-108	4,795,460	October 1986	Non-Aging Waste
241-AW-101	4,542,480	August 1980	Non-Aging Waste
241-AW-102	4,542,480	August 1980	Non-Aging Waste
241-AW-103	4,542,480	August 1980	Non-Aging Waste
241-AW-104	4,542,480	August 1980	Non-Aging Waste
241-AW-105	4,542,480	August 1980	Non-Aging Waste



241-AW-106	4,542,480	August 1980	Non-Aging Waste
241-AY-101	3,900,000	April 1971	Aging Waste
241-AY-102	3,900,000	April 1971	Aging Waste
241-AZ-101	3,900,000	November 1976	Aging Waste
241-AZ-102	3,900,000	November 1976	Aging Waste

The DST Part A Form states the non-aging waste is current acid waste and not neutralized. The aging waste is neutralized current acid waste generated from the Plutonium-Uranium Extraction Plant, Closure Unit Group 25.

According to the DST Part A Form and the draft DST System Fact Sheet from the Revision 9 Permit Application, the DST System contains the following types of components.

- Transfer lines that run between tanks and tank farms.
- Seal pots on drain lines to prevent gases from escaping to the atmosphere.
- Pumps to move liquids or solids.
- Valves to control the flow of waste.
- Removable jumpers (rigid or flexible sections of piping) that connect transfer lines.
- Nozzles, which are termination points for transfer lines in a pit or diversion box.
- Pits or diversion boxes that contain valves, jumpers, and nozzles.

The DST Part A Form describes the tanks as treatment and storage DWMUs. Corrosion is controlled by adding chemicals to the waste in the DSTs. Airlift circulators or pumps mix the waste in the DSTs. The DSTs consist of a primary tank within a secondary tank. The secondary containment is designed with sufficient capacity to hold the waste in the primary tank. Both the primary and secondary tanks have leak detection equipment.

The mixed waste in the DSTs consist of liquid, sludge, and salt cake. The liquid waste on the top of the sludge is called supernatant. When liquid fills the void spaces in the tank's solids, the waste is called interstitial liquid. The sludge is solids that cannot be dissolved and are usually at the bottom of the tank. Salt cake consists of solid salts, which can be dissolved and are usually near the top of the tank. A list of dangerous waste codes associated with the DST System and 204-AR WUS can be found in the DST Part A Form.

For further information regarding the 204-AR WUS, refer to the DST Part A Form and the January 15, 2015, Ecology inspection compliance report (Index # 15.538).

### Compliance Background

A description of compliance history between 1998 and 2015 can be found in the January 15, 2015, Ecology inspection compliance report (Index # 15.538) and March 18, 2016, Ecology inspection compliance report (Index # 16.554). The areas of non-compliance identified in the March 18, 2016, Ecology inspection compliance report (Index # 16.554) are as follows.

- 1) Settlement Agreement and Stipulated Order of Dismissal. Pollution Control Hearings Board Number 98-249 and 98-250 (i.e. SY Settlement Agreement), II. Settlement Agreement. USDOE-ORP and WRPS failed to report an alarm of an annulus Leak Detection System probe at its set point, which was determined not to be attributable to operation activities, within 24 hours.



- 2) WAC 173-303-320(1) and (2) USDOE-ORP and WRPS failed to develop and follow a written schedule for inspecting safety and emergency equipment.
- 3) WAC 173-303-320(2)(d), UDOES-ORP and WRPS failed to keep inspection logs that included the time of the inspection.
- 4) WAC 173-303-395(1)(d), USDOE-ORP and WRPS failed to document the time of inspections on the inspection log or operating record.
- 5) 40 CFR Subpart J §265.191, USDOE-ORP and WRPS failed to conduct integrity assessments of DST system components categorized as Emergency Use Only - Secondary Containment or Non-Compliant Deferred Use Components.

Complete citations, observations of non-compliance and the required actions are documented in the March 18, 2016, Ecology inspection compliance report (Index # 16.554). Ecology determined areas of non-compliance 2 and 5 from the 2016 Ecology Compliance Report (Index # 16.554) have not returned to compliance. A description of the meetings and correspondence to resolve the areas of non-compliance are documented below:

On **March 16, 2017**, Ecology transmitted the 2016 DST Compliance Report (Compliance Index # 16.554) to USDOE-ORP and WRPS.

Ecology letter titled *Re: Dangerous Waste Compliance Inspection on March 8, 2016, at the Double-Shell Tank System and 204-AR Waste Unloading Station, RCRA Site ID: WA 7890008967, NWP Compliance Index No. 16.554, 17-NWP-028.*

On **May 19, 2017**, USDOE-ORP and WRPS responded to Ecology Letter 17-NWP-028 and the five areas of non-compliance listed in the compliance report 16.554.

USDOE-ORP and WRPS letter titled *Response to the Dangerous Waste Compliance Inspection on March 8, 2016, at the Double-Shell Tank System and 204-AR Waste Unloading Station, Resource Conservation and Recovery Act Site ID: WA7890008967, Nuclear Waste Program Compliance Index No. 16.554, 17-ECD-0031.*

On **June 1, 2017**, Ecology responded to USDOE-ORP and WRPS Letter 17-ECD-0031, in Ecology Letter titled *Re: Department of Ecology (Ecology) Review of Response to Dangerous Waste Compliance Inspection on March 8, 2016, at the Double-Shell Tank System and 204-AR Waste Unloading Station, RCRA Site ID: WA7890008967, NWP Compliance Index No. 16.554, 17-NWP-065*, which stated the following in part:

As of May 10, 2017, Ecology determined areas of non-compliance 1, 3, and 4 have been addressed...

After reviewing your response letter, Ecology has determined no return to compliance actions have been taken to adequately address areas of non-compliance 2 and 5.

On **June 29, 2017**, Ecology, USDOE-ORP, and WRPS met to discuss the USDOE-ORP and WRPS proposal for resolution of areas of non-compliance 2 and 5. USDOE-ORP and WRPS personnel stated there was a willingness to conduct integrity assessments of tank system components with a future mission use and close tank system components that are determined to no longer have a use. USDOE-ORP and WRPS personnel said they were starting to evaluate all tank system components to determine whether the components have a future mission use. USDOE-ORP and WRPS verbally committed to presenting the results to Ecology.



On **September 6, 2017**, Ecology, USDOE-ORP, and WRPS met to discuss the USDOE-ORP and WRPS proposal for resolution of areas of non-compliance 2 and 5. USDOE-ORP and WRPS said they were still working on completing an evaluation of all tank system components to determine whether they have a future mission use. USDOE-ORP and WRPS presented a draft table, with a partial list of the components identified in the Ecology Compliance Report (Index 16.554). USDOE-ORP and WRPS said they were nearly complete with their evaluation and would soon be able to present a completed draft table of tank system components identified in the Ecology Compliance Report (Index 16.554).

On **November 7, 2017**, Ecology sent USDOE-ORP and WRPS a letter titled *Re: Enforcement Discretion Regarding the Double-Shell Tank (DST) System and 204-AR Waste Unloading Station (WUS) Emergency Use Only - Secondary Containment Components and Non-Compliant Deferred Use Components*, RCRA Site ID: WA 7890008967, 17-NWP-161, which stated the following in part.

The Department of Ecology (Ecology) has reviewed the operational assumptions and enforcement discretion that Ecology previously committed to regarding the Emergency Use Only- Secondary Containment Components (Emergency Use Components) and the Non-Compliant Deferred Use Components (Deferred Use Components) present in the DST System and 204-AR WUS.

Ecology finds that the previous agreements relating to enforcement discretion exercised for both the Emergency Use Components and the Deferred Use Components were intended to be limited in both time and scope. Due to the excessive amount of time required to return to compliance and the continued expansion of the scope of the agreement, Ecology has determined that the basis for exercising enforcement discretion on this matter is no longer valid.

Ecology requires United States Department of Energy- Office of River Protection (USDOE-ORP) and Washington River Protection Solutions (WRPS) to revise the application closure plan to include all USDOE-ORP identified Emergency Use Components and Deferred Use Components scheduled for closure.

Also, Ecology requires USDOE-ORP and WRPS to complete the integrity assessments for all other Emergency Use Components and Deferred Use Components to determine if they are compliant or unfit for use. For all unfit for use components, USDOE-ORP must provide a schedule to repair these components or include these components in the closure plan.

On **December 13, 2017** Ecology, USDOE-ORP, and WRPS met to discuss the USDOE-ORP and WRPS proposal for resolution for areas of non-compliance 2 and 5. USDOE-ORP and WRPS provided Ecology with an updated list of tank system components with a future mission use and tank system components that are determined to no longer have a use. Further information regarding the status of the components addressed in areas of non-compliance 2 and 5 are documented in this compliance report.

On **June 14, 2018**, Ecology transmitted the 2017 DST Compliance Report (Compliance Index # 17.592) to USDOE-ORP and WRPS.



*Ecology letter titled Re: Dangerous Waste Compliance Inspection on May 18, 2017 at the Double-Shell Tank System and 204-AR Waste Unloading Station, RCRA Site ID: WA 7890008967, NWP Compliance Index No. 17.592, 18-NWP-095.*

There were three areas of non-compliance identified in the May 18, 2017 compliance report, index number 17.592.

- 1) WAC 173-303-200(2) Satellite accumulation. USDOE and WRPS had one open and unlabeled container. This non-compliance was corrected shortly after the inspection.
- 2) WAC 173-303-320(1) and(2) Inspections. USDOE and WRPS had not developed and followed a written schedule for inspecting emergency equipment identified as annulus pump pits. This was listed in Table 4 of the inspection report. As of August 14, 2018, this area of non-compliance was addressed (see Ecology letter 18-NWP-143 dated August 30, 2018).
- 3) 40 CFR Subpart J 265.191 Assessment of existing tank system's integrity. USDOE and WRPS have not completed integrity assessments for Double Shell Tank System Components identified in Table 5 of the inspection report. This non-compliance has not been fully addressed at the time of writing this report.

On **August 14, 2018**, USDOE-ORP responded to Ecology Letter 18-NWP-095 and the three areas of non-compliance listed in the compliance report 17.592.

Response to Washington State Department of Ecology Dangerous Waste Compliance Inspection No. 17.592 closed out on June 14, 2018, Letter 18-ECD-0053

On **August 30, 2018**, Ecology responded to USDOE-ORP and WRPS Letter 18-ECD-0053, in Ecology Letter titled *Department of Ecology (Ecology) Review of Responses to Dangerous Waste Compliance Inspections on March 8, 2016, and May 18, 2017, at the Double Shell Tanks, RCRA Site ID: WA7890008967, NWP Compliance Index No's 16.554 and 17.592, 18-NWP-143*, which stated the following in part:

Ecology has reviewed your response letter and enclosure, received on August 14, 2018 (reference). Your letter included corrective action for items of non-compliance identified in Ecology's inspections on March 8, 2016, and May 18, 2017, at the Double Shell Tanks. As of August 14, 2018, area of non-compliance two in Compliance Index 16.554 and 17.592 has been addressed.

You must work with the Clean-up Section Manager, Cheryl Whalen, and the Double Shell Tank Project Staff at Ecology NWP on the closure of DST annulus pump pits, and at a minimum complete the following:

- 1) Provide an updated draft permit closure plan in accordance with 40 CFR 265 Subpart G and provide a demonstration in accordance 40 CFR 265.113(b) to Ecology;
- 2) As a part of the demonstration for number 1 above, in accordance with 40 CFR 265.113(b)(2) show how and when all waste lines connected to the annulus pump pits are either sealed off or provided with their own secondary containment if still in use; and



- 3) Provide Ecology with revised procedures showing how you are compliant with the requirements of 40 CFR 265.196(b) for the emergency annulus pumping capability system.

On November 14, 2018 and November 29, 2018, Ecology, USDOE-ORP, and WRPS representatives met to discuss compliant resolutions to the remaining non-compliances cited in the 2016 and 2017 DST compliance inspections related to completing needed integrity assessments for DST components.



### Inspection Summary

On August 8, 2018, I sent an email to Holly Bowers (WRPS Environmental Scientist), Bryan Trimberger (USDOE-ORP Environmental Compliance), and Steve Szendre (Mission Support Alliance Inspection Coordinator), announcing a scheduled compliance evaluation inspection of the DST System and 204-AR WUS. On August 13, 2018, Mr. Mathey and I arrived at Building 2750E, Room A-229, 200 East at 8:30 a.m. Around 8:45 a.m., we began the inspection with introductions and signing an attendance roster. Fifteen people were in attendance throughout the inspection. For a complete list of attendees, see the sign-in sheet in Attachment A. USDOE was represented by Bryan Trimberger. Mr. Trimberger accompanied us on the inspection. Holly Bowers, the primary contact for WRPS, the contractor that manages the DST system, also accompanied us on the inspection.

In the opening conference, I explained that we would be evaluating compliance with the 8C permit and interim status standards. I explained in addition to looking at standard waste management practices, we would also be asking questions on the integrity assessments and possible questions on the corrosion protection system. I said this will help me understand these systems and their process. Ms. Bowers reminded all of us of the bad air quality due to Washington fires and smoke. She said that there was an extreme fire posting today. I said we would conduct a field inspection by driving around the tank farms and verifying security signage.

At this time, Mr. Trimberger said the Ecology permitting team and coordinator rejected last year's Permit Part B application submittal. Therefore, he thought it might not be good to use as a basis during this inspection. I thanked him for the information.

Next, I moved to training and training plans. I explained that compliance has been involved and supporting Ecology permitting on a revision of the permit training plans. I said that we have received big changes on the training plans for USDOE-RL and these would be approved for the next permit. I asked if USDOE-ORP and WRPS were revising their training plans. Mr. Charles Mulkey, WRPS, said at the end of December this year, they would have a 242-A Evaporator and DST System dangerous waste training plan. Mr. Trimberger added that the LERF/ETF training plan should be completed at the end of September 2018. I concluded training and moved to tank integrity.

Mr. Dennis Washerfelder, WRPS, introduced himself as lead engineer for integrity assessments. He began by saying integrity assessments for DSTs were performed in 2006 and 2016 and are evolving. 2016 is a 10-year cycle and only a start date. He said as default, Lucas Engineering and Management Services provide support for integrity work. They are a subcontractor for WRPS and have been employed for 20 or more years. I asked if there were any other leaks associated with AY -102. Mr. Trimberger said that the tank will not be put back into service or be repaired and will close under the AY-102 Settlement Agreement.

Next, I asked Mr. Washerfelder to describe the integrity assessment process for the DST system. He began by explaining that the integrity assessment is conducted using a prepared work plan. Mr. Washerfelder said the Independent Qualified Registered Professional Engineer (IQRPE) process was done by the procurement staff and a small group of local bidders. WRPS and USDOE-ORP provide the written work plan and guidance to the IQRPE. The work plan



provides the basis for an IQRPE to perform the assigned work. The IQRPE has their own internal work plan that is their schedule on when work is to be completed.

I then asked how they ensure the integrity assessment is compliant with the dangerous waste regulations. Mr. Washerfelder explained the existing regulations are part of the work plan (i.e., WAC 173-303-640). A subject matter expert, preferably a RCRA specialist, reviews it. The work plan requires a compliance crosswalk of how the regulations are met. This becomes part of the integrity assessment report as Appendix A in Compliance Matrix. Next, I asked about corrosion and its relation to the integrity assessments. Mr. Washerfelder explained that corrosion with the DST System is monitored closely. Nitrite and nitrate levels within the tanks are important indicators for determining stress cracking. There is on-going integrity assessments along with visual inspections, ultrasonic testing, and review of occurrence reports. Mr. Voogd brought up a description of the corrosion probes on the computer screen. He explained that the probes measure electro chemical readings showing corrosion is or is not a problem. This can be done in the head space (using supernate), and in a solid surface. Mr. Washerfelder said that the Ares Corporation are the local corrosion experts that are used. In 2016, a 10-year cycle was established and this was only a start date. Mr. Trimberger added that the TPA monthly report includes ongoing integrity assessments for DSTs and IQRPE work.

I concluded my morning questions and answers and indicated we were ready for the field DST drive through. I said we would visit three tank farms; AW, AY, and SY. At around 10:00 a.m., we began the field inspection. First, we drove to the 241-AW Tank Farm where we observed a large number of workers inside the tank farm and placement of large cranes. Mr. Voogd said a pump replacement was being conducted in the tank farm. This was the AW-103 pump. Next, we went to the 241-AY Tank Farm and last, the 241-SY Tank Farm. I asked about the SY cross site transfer line and Mr. Voogd said it has not been used in 10 years. At the three tank farms visited, I observed security postings and locked gates. We ended our field tour and returned to Conference Room A-229 around 11:00 a.m. for final review of documents and interviews.

I began with the review of the Building Emergency Plan (BEP) for tank farms. Ms. Bowers brought up RPP 27869, Revision 9, dated May 9, 2008 on the computer screen from the operating record. I then asked who the Building Emergency Director (BED) was for the day. Ms. Bowers called the 372-2689 number and was told Jeff Neilson was and he was located at the central shift office, 274-AW.

Next, I asked about the waste analysis plan. Mrs. Jamie Granger Holton and Mr. Dustin May joined us for the discussion. I asked why there seemed to be few compatibility concerns with the DST waste streams. Mrs. Holton said the waste processes are similar. Mr. Voogd explained that for the first 40 years to maybe 2005, waste was moving from the SSTs to the DSTs. The supernate would go to the evaporator and become concentrated. He said that over time, the tank waste has become "more communized" between the tank systems. I then asked about the 219-S tank system waste being moved into the DST system. Mr. Van Mason said that the 219-S transferred waste to the DST system four months ago. I asked about sampling and Mr. Van Mason explained they first sample, then treat and then sample again (for specs) before a transfer occurs. I said that the current WAP states "Tank Farm Contractor" performs this work. Mr. Voogd said this is performed by WRPS.



At this time, I decided to ask where operating record files are kept and verify if the operating record information matched the last inspection. Ms. Bowers said operating record files are in the Integrated Document Management System (IDMS) or archived in Building 3212 or the Federal Records Center, the same as last year. She added that the Tank Waste Information Network Systems or TWINS recorded data is also transferred to IDMS. I pointed out a table in the WAP, Table B.4.5.3., and asked in the past 12 months has the waste sent to DST been in compliance with this table? Mrs. Holton said she was not aware of any that was not a compatible representation for the waste.

I asked how DW labeling and major risk labeling is in compliance with the DSTs. Ms. Bowers explained the facility's security addenda is currently controlled by Ecology permitting and that both sides are working through changes and requirements associated with Revision 9 and the rule change. She said one item to determine was the underground portion of a tank versus the active portion of a tank.

I briefly asked about cross site transfer lines and Mr. Dustin May, Project Manager, said that Tank Farm SY and AN maintain a cross site transfer line. I asked about the support buildings associated with the transfer line and Mr. May explained the following. The 241-6241A building houses a diversion box and booster pumps, which increase pressure and one building for the slurry line. The B241V Building is the Vent Station and is located on a high elevation to allow for drainage back to tanks. He described it as the "brains of the operation" that houses all the controls for the transfer line. I asked about the line usage and Mr. May said it was last used in 2007. He said there is a document that outlines all transfers made using the cross site transfer lines. I then asked about leaks with the transfer line and Mr. May said he currently knew of no leaks. He said that the SY to AN transfer line experienced a leak detection problem from moisture and was repaired in 2006. Mr. May explained that a nitrogen purge on the tank system helps prevent condensate in the secondary leak detection. There was a leak detection problem from moisture in 2006 and it was repaired. Mr. Voogd added that the systems can be different in determining leak detection such a light or a sound alarming.

I asked to see the inspection plan for cathodic protection and Ms. Bowers brought up RPP-16922, Section 5.5 on the computer from the operating record. She also brought up the East Tank Farms cathodic/inspection plan, ET-006653. Both these documents were verified in the operating record. I asked how the requirements for WAC 173-303-395(1) are inspected for DSTs. Mr. Voogd said that there are no combustibles/reactive wastes stored in above ground portions of the tank farms.

I asked about Land Disposal Restrictions (LDR) requirements associated with the tank farms. Mr. Van Mason said LDR would apply with generators and that waste. It is tracked using the PIN files. LDR also follows the M-26 Tri-Party Agreement requirements.

I asked for an overview of waste management activities taking place at the DST System and 204-AR WUS. Mr. Voogd and Mr. Heidelberg described the following waste management activities taking place at the DST System.

- 241-AY/AZ Tank Farm – Planning to perform pit work at the AY tank farm. Performing pump replacement at the AZ tank farm to take around 2 months. Robotic arms helping



with process. Also, performing ultrasonic testing in the AZ farm. Still need to clean out the AY 102 tank.

- 241-AP Tank Farm – Busy. Pilot project for air feed to WTP.
- 241-AN Tank Farm – Just completed a retrieval of C-Farm (SST to DST) last year. Clean up activities ongoing; hose in hose, pits, etc.
- 241-AW Tank Farm – Mr. Coughlin said this farm always needs maintenance due to all waste transfers moving out from this farm. AW-103 pump pulled. This is the feed farm to the 241-Evaporator. Vapor system ongoing.
- 241-SY Tank Farm – No recent activities were identified, primarily maintenance.

I completed my record review and interviews for the inspection. For my closeout summary, I said to USDOE and WRPS that I had not identified any problems during my inspection. I said that I may request additional documents if I felt it was needed to complete my report. I asked if there were any questions for us and there were none. I thanked everyone for their time and information which helped me greatly and made for a good inspection. We left the facility around 1:00 p.m.

*To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 509-372-7950 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.*



Attachment 1  
Attendance Roster: Double Shell Tank System and 204-AR Waste Unloading Station  
(Index 18.647)  
(2 pages)



Attachment #1



18.647  
 DST

ATTENDANCE ROSTER				
TITLE			RAID INSPECTION NUMBER	
Ecology Dangerous Waste Inspection of the Double Shell Tank System,  Dangerous Waste Management Unit Group			2018-066	
			COMPLIANCE INDEX/AUDIT NUMBER 18.647	
AGENCY	LOCATION	DATE/TIME	FOLLOW-UP TO RAID	
Ecology	2750E/A-229/200E	08/13/2018 0830 HRS	No	
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AGENCY	LOCATION	DATE/TIME	FOLLOW-UP TO RAID	
Ecology	2750E/A-229/200E	08/13/2018 0830 HRS	No	
ATTENDEES				
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