

**POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

WASHINGTON RIVER PROTECTION
SOLUTIONS; and U.S. DEPARTMENT
OF ENERGY, OFFICE OF RIVER
PROTECTION,

PCHB No. 14-041c

SETTLEMENT AGREEMENT

Appellants,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent.

Respondent State of Washington, Department of Ecology (Ecology), represented by Attorney General Robert W. Ferguson and Assistant Attorneys General Lee Overton and Dorothy Jaffe; appellant Washington River Protection Solutions (WRPS), represented by attorneys Stephen Cherry and Gloria Johnson; and appellant U.S. Department of Energy (USDOE), represented by attorneys Mark Silberstein and Scott Stubblebine, submit this Settlement Agreement (Agreement) to the Pollution Control Hearings Board (Board) as a full and final settlement of the above-referenced appeal, and request that the Board dismiss the appeal with prejudice.

I. BACKGROUND

Ecology regulates hazardous waste under the Hazardous Waste Management Act, RCW 70.105 (HWMA) and the regulations implementing it, WAC 173-303. Ecology is

1 authorized by the United States Environmental Protection Agency to implement the HWMA
 2 in lieu of the federal Resource and Conservation Recovery Act (RCRA), 42 U.S.C. §§ 69001,
 3 *et seq.* RCW 70.105.109 states that Ecology may regulate all hazardous wastes, including
 4 those composed of both radioactive and hazardous components, to the extent it is not
 5 preempted by federal law. USDOE regulates certain radioactive materials, including the
 6 radioactive component of mixed hazardous waste at Hanford, pursuant to the Atomic Energy
 7 Act of 1954, 42 U.S.C. §§ 2011, *et seq.* (AEA). Any Ecology “approvals” as described in this
 8 Agreement shall be predicated solely upon Ecology’s authorities under the HWMA and
 9 RCRA subject to, and to the extent such approvals are not inconsistent with, USDOE’s
 10 authority under the AEA.

11 On March 21, 2014, Ecology issued Administrative Order No. 10618 (Order)
 12 requiring WRPS and USDOE to conduct actions related to and including the removal of waste
 13 from double shell Tank 241-AY-102 which, since at least August 2012, has been leaking from
 14 its primary tank into its secondary containment. A copy of the Order is attached hereto as
 15 Exhibit A. USDOE and WRPS appealed the Order to the Board on April 21, 2014 and,
 16 shortly thereafter, moved for a stay. Ecology opposed the motion in briefing, and USDOE
 17 and WRPS withdrew their motion.

18 USDOE and WRPS timely completed requirements 1, 8, 9, 10, and 14 of the Order.
 19 Ecology, USDOE, and WRPS now agree to resolve the appeal of the Order through the
 20 settlement outlined below, which settles the remaining requirements in the Order.

21 **II. SETTLEMENT AGREEMENT**

22 The parties desire to resolve the dispute herein and avoid the cost and time associated
 23 with further litigation. The parties, without admitting fault or liability, therefore stipulate and
 24 agree as follows:

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1 **A. SCOPE**

2 This Agreement constitutes the entire agreement between the parties to this appeal, and
3 settles all issues and alleged violations raised by the Administrative Order. Ecology agrees to
4 deem the Order satisfied upon USDOE's and WRPS's satisfactory and timely completion of its
5 obligations under this Agreement. This Agreement applies only to Administrative Order
6 No. 10618 issued on March 21, 2014, and does not in any way limit Ecology's authority to
7 issue other administrative orders or enforcement actions for dangerous waste violations that are
8 not addressed in Administrative Order No. 10618.

9 **B. RESOLUTION OF ADMINISTRATIVE ORDER**

10 USDOE and WRPS agree to conduct the following actions, within the deadlines
11 indicated:

12 **1. Provide Report on Integrity Implications of Decanting Liquid¹**

13 USDOE and WRPS timely completed requirement 1 of the Order. No further
14 action required.

15 **2. Isolate Tank 241-AY-102**

16 No later than February 4, 2016: Complete isolation of Tank 241-AY-102 as
17 described in RPP-PLAN-59931, Rev. 2, Work Plan, Attachment A, Section 2.1.1,
18 p. A-20. Until Tank 241-AY-102 is completely isolated:

19 a. Keep in place a temporary drain plug in the AY-02A pit to prevent
20 drainage back into Tank 241-AY-102 during transfer of waste external to Tank
21 241-AY-102; and

22 b. Conduct video monitoring of the AY-02A pit during any waste
23 transfers.

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¹ The numbering scheme of the settlement requirements (1-14) aligns with the numbering of the requirements in Order No. 10618.

1 **3. Complete Construction, Install Equipment, and Begin Supernatant**
2 **Retrieval**

3 No later than March 4, 2016: Complete procurement, construction and
4 installation of all equipment necessary for waste removal, and begin retrieving
5 supernatant from Tank 241-AY-102.

6 **4. Begin Sludge Retrieval**

7 Begin retrieving sludge upon completion of supernatant retrieval from Tank
8 241-AY-102 consistent with AY-102 Recovery Project Waste Retrieval Work Plan,
9 RPP-PLAN-59931, Rev. 2.²

10 **5. Complete Waste Retrieval and Provide Waste Retrieval Status Report**

11 a. No later than March 4, 2017: Complete sludge retrieval according to
12 AY-102 Recovery Project Waste Retrieval Work Plan, RPP-PLAN-59931,
13 Rev. 2.

14 b. Within thirty-five (35) days after reaching the limit of two initial sludge
15 retrieval technologies, conducted in accordance with AY-102 Recovery Project
16 Waste Retrieval Work Plan, RPP-PLAN-59931, Rev. 2 , Section 2, but no later
17 than April 9, 2017, provide Ecology with a written status report which will
18 include: (1) an estimate of the amount of waste remaining on the floor of the
19 primary tank; and (2) a determination either that conditions allow for inspection,
20 or that the remaining waste prevents such inspection.

21 c. If USDOE determines that conditions allow for inspection, within sixty
22 (60) days of completing an inspection of the tank to determine the cause of the
23 leak, provide a report to Ecology describing the results of the inspection. This
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25 ² The AY-102 Recovery Project Waste Retrieval Work Plan, RPP-PLAN-59931, Rev. 2, may be
26 subsequently amended by written agreement of the parties. Any proposed extension of a deadline in section II.B
 of the Agreement is subject to the provisions in section II.G (Extension of Deadlines Set Forth in Section II.B).

1 report shall either describe the process that will be used to repair the tank or
2 report USDOE's decision to close the tank.

3 d. If USDOE determines that remaining waste prevents inspection, within
4 thirty (30) days of making such a determination, submit a revised workplan for
5 Ecology's approval documenting additional retrieval technology to be used, the
6 expected limits of that technology, and a schedule for implementation; or
7 provide a report documenting USDOE's decision to close the tank.

8 e. Within sixty (60) days of reaching the limit of the additional retrieval
9 technology or completing use of that technology, provide Ecology with a
10 written status report which will include: (1) an estimate of the amount of waste
11 remaining on the floor of the primary tank; and (2) USDOE's determination
12 either that conditions allow for inspection, or that the remaining waste prevents
13 such inspection and the tank is to be closed.

14 **6. Continuing Obligation to Report Safety Issues and Provide Recovery Plan**

15 Notify Ecology within twenty-four (24) hours of confirming any safety issue,
16 and provide a detailed description of the specific safety issue. Submit a recovery plan
17 within thirty (30) days of providing this notice to Ecology. If the event creating a
18 safety issue occurs during waste retrieval operations, and the proposed solution is to
19 cease retrieval operations, the recovery plan shall include a schedule for correcting and
20 resuming retrieval operations at the earliest practicable time.

21 **7. Submit Contingency Plan and Monitoring Plan**

22 a. Within thirty (30) days after execution of this Agreement, provide a
23 revised contingency plan for Ecology review and approval, for safely managing
24 any worsening conditions indicated by inspections and monitoring.

25 i. This plan will, at a minimum, specifically address indications of
26 worsening leak rates from the primary tank, indications of loss of secondary

1 liner integrity, plugging of the ventilation channels, or failure of ventilation
2 system components. The plan must include specific criteria (numerical where
3 appropriate) for establishing response action(s), the decision process for action,
4 equipment needed, and schedule for response actions. The plan must also
5 include the bases for the action criteria. The plan must show that the equipment
6 needed is available and staged, and that pre-planned work packages are in place
7 and ready for response actions.

8 ii. The contingency plan will cover the period of design and
9 procurement for Tank 241-AY-102 retrieval. Thirty (30) days before beginning
10 construction activities, USDOE and WRPS will submit a revised contingency
11 plan for Ecology review and approval. Similarly, thirty (30) days before
12 beginning tank pumping operations, USDOE and WRPS will submit a revised
13 contingency plan for Ecology review and approval. The beginning of the
14 construction phase will be the start of physically removing the existing primary
15 transfer pump from Tank 241-AY-102. The beginning of the tank pumping
16 operations will be the start of pumping of supernatant from the primary tank.

17 iii. Any other new issues not identified in the contingency plan such
18 as those that arise as a result of construction or tank pumping operations, shall
19 result in a revision to the Contingency Plan which will be provided to Ecology
20 within thirty (30) days.

21 b. Within sixty (60) days of the date of execution of this Agreement,
22 submit to Ecology for approval a revised monitoring plan for annulus
23 inspection, waste temperature monitoring, and annulus ventilation monitoring,
24 including a schedule for calibration of the continuous air monitors (CAMs) and
25 Enraf-Nonius Series 854 (ENRAF) equipment.
26

1 **8. Continue to Provide Any Additional Published Reports on Integrity of**
2 **Secondary Containment**

3 USDOE and WRPS timely completed requirement 8 of the Order. However,
4 any further DST secondary containment system corrosion testing or evaluations which
5 estimate the propensity for any leaked waste to corrode the secondary liner, must be
6 reported in a revision of RPP-RPT-57774, *Evaluation of Tank 241-AY-102 Secondary*
7 *Containment System*. Should USDOE and WRPS revise RPP-RPT-57774, or issue
8 another report further developing or interpreting data in RPP-RPT-57774, a copy of
9 the subsequent report(s) shall be provided to Ecology within thirty (30) days of its
10 finalization.

11 **9. Submit a Detailed Waste Retrieval Workplan**

12 USDOE and WRPS timely completed requirement 9 of the Order. No further
13 action required.

14 **10. Submit Supporting Documentation Justifying Proposed Schedule**

15 USDOE and WRPS timely completed requirement 10 of the Order. No further
16 action required.

17 **11. Sample the Leak Detection Pit**

18 a. To address a potential leak to the environment, test the liquid for pH and
19 measure the level of the liquid in the leak detection pit monthly. Include test
20 results in the report that is submitted as part of item 12 below.

21 b. Sample the liquid from the Tank 241-AY-102 annulus leak detection pit
22 whenever the leak detection pit is pumped or there is a significant change in the
23 pH and at a minimum, using inductively coupled plasma/mass spectrometry
24 (ICP/MS), analyze this sample for metals, radionuclides, and pH, and provide
25 the preliminary results to Ecology within fifteen (15) days of taking the sample.
26 Submit the final results to Ecology within sixty (60) days of taking the
 sample.

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12. Monitor and Inspect for Leaks

a. Every two months: Conduct video inspections of the entire annulus or at least 95 percent of the annulus space.

b. Every two weeks: Conduct video inspections of all currently known waste accumulations in the Tank 241-AY-102 annulus and, as they are discovered, all newly discovered waste accumulations.

13. Report on Leak Inspections

Monthly: Provide written reports to Ecology on all Tank 241-AY-102 annulus inspection and monitoring results conducted according to the Monitoring Plan (provided under requirement B.7 above) and the SY Settlement Agreement. These documents shall include reporting on annulus ventilation performance and status, images of the annulus, CAM readings, ENRAF readings, CAM and ENRAF calibration results, sample analysis results, waste heat monitoring results, including any interpretations and conclusions based on the results.

14. Submit Documentation

USDOE and WRPS timely completed requirement 14 of the Order. No further action is required.

C. STIPULATED PENALTIES

If USDOE or WRPS violate the terms of this Agreement, subject to the procedures set forth below, Ecology may assess and impose a penalty based on the stipulated penalty amounts listed in the table below.

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	Violation	Amount
2	1. n/a	n/a
3	2. Failure to complete isolation of Tank 241-AY-102 by February 4, 2016, in accordance with requirement 2 of this Agreement.	\$1,000 per day of delay past the deadline.
4	3. Failure to complete construction, install equipment, and begin supernatant retrieval by March 4, 2016, in accordance with requirement 3 of this Agreement.	\$5,000 for the first week of delay past the deadline, and \$7,500 for each week thereafter.
5	4. Failure to begin sludge retrieval immediately upon completion of supernatant retrieval, in accordance with requirement 4 of this Agreement.	\$5,000 for the first week of delay, and \$7,500 for each week thereafter.
6	5.a. Failure to complete sludge retrieval by March 4, 2017, in accordance with requirement 5.a of this Agreement.	\$5,000 for the first week of delay past the deadline, and \$7,500 for each week thereafter.
7	5.b. Failure to provide Waste Retrieval Status Report, in accordance with requirement 5.b of this Agreement.	\$500 per day of delay.
8	5.c. Failure to provide a timely inspection report, in accordance with requirement 5.c of this Agreement.	\$500 per day of delay.
9	5.d. Failure to provide a timely workplan for further technology or a decision to close the tank, in accordance with requirement 5.d of this Agreement.	\$1,000 per day of delay.
10	5.e. Failure to provide a timely status report following cessation of an additional technology, in accordance with requirement 5.e of this Agreement.	\$500 per day of delay.
11	6. Failure to give timely notification of safety issues, or failure to provide a timely recovery plan, in accordance with requirement 6 of this Agreement.	\$500 per day of delay.
12	7.a.i. Failure to timely submit an initial contingency plan meeting specifications in agreement, in accordance with requirement 7.a.i of this Agreement.	\$1,000 for the first week of delay, and \$2,500 for each week thereafter.
13	7.a.ii. Failure to timely submit a revised contingency plan prior to construction, in accordance with requirement 7.a.ii of this Agreement.	\$1,000 for the first week of delay, and \$2,500 for each week thereafter.
14	7.a.iii. Failure to timely submit a revised contingency plan prior to retrieval, in	\$1,000 for the first week of delay, and \$2,500 for each week thereafter.

1	accordance with requirement 7.a.iii of this Agreement.	
2	7.b. Failure to timely submit a	\$500 for the first week of delay, and \$1,000 for each week thereafter.
3	monitoring plan meeting specifications in agreement, in accordance with requirement 7.b of this Agreement.	
4	8. Failure to provide additional	\$500 for the first week of delay, and \$1,000 for each week thereafter.
5	published reports on secondary containment integrity, in accordance with requirement 8 of this Agreement.	
6	9. n/a	n/a
7	10. n/a	n/a
8	11. Failure to sample leak detection pit or provide report according to required schedule, per requirement 11 of this Agreement.	\$500 for each missed sampling event or report.
9	12.a. Failure to conduct monthly video inspections, in accordance with requirement 12.a of this Agreement.	\$500 for each missed inspection.
10	12.b. Failure to conduct biweekly video inspection, in accordance with requirement 12.b of this Agreement.	\$500 for each missed inspection.
11	13. Failure to provide timely and complete report on inspection and monitoring results, in accordance with requirement 13 of this Agreement.	\$500 for each missed report.
12	14. n/a	n/a

18 Prior to issuing a Notice of Penalty Incurred and Due to USDOE and WRPS that
19 assesses stipulated penalties, Ecology shall notify USDOE and WRPS, in writing, of its
20 intention and allow USDOE and WRPS ten (10) calendar days to submit new information
21 solely on the question of whether the violation(s) giving rise to the stipulated penalties
22 occurred. Ecology in its sole discretion may, at USDOE's and WRPS's request, or upon its
23 own initiative, extend this ten (10) day period.

24 Ecology shall issue its final determination within fifteen (15) days of USDOE's and
25 WRPS's submittal of new information. If Ecology issues a penalty to USDOE and WRPS that
26 assesses stipulated penalties, USDOE and WRPS may appeal to the Board solely on the

1 question of whether the violation occurred. USDOE and WRPS may not challenge the
2 reasonableness of stipulated penalty amounts as specified in the table above.

3 Stipulated penalties assessed pursuant to this Agreement shall be payable to, by check,
4 money order, or as otherwise agreed to by the parties, "Department of Ecology" and shall
5 make reference to this Agreement, and the payment shall be sent to:

6 Department of Ecology
7 Attn: Cashiering Unit
8 P.O. Box 47611
9 Olympia, WA 98504-7611

10 **D. REMEDIES**

11 In the event that USDOE and WRPS violate the terms of this Agreement, Ecology may
12 pursue all remedies available by law. Where Ecology seeks any remedy beyond judicial
13 enforcement of the stipulated penalties enumerated herein, USDOE and WRPS reserve all
14 applicable rights and defenses available by law. Ecology shall be entitled to recover its costs,
15 including attorney fees, in any action brought to enforce this Agreement in which Ecology is a
16 prevailing party.

17 **E. VENUE**

18 USDOE and WRPS agree that the venue for any judicial action to enforce this
19 Agreement shall be in Benton County Superior Court. However, USDOE reserves any and all
20 rights it may have to remove any such action to an appropriate federal court.

21 **F. SERVICE**

22 In the event Ecology pursues any remedy in Benton County Superior Court, USDOE
23 and WRPS agree to accept service of the summons and complaint by United States mail in lieu
24 of personal service, at Ecology's option. Service by mail shall be deemed complete upon the
25 third day following the day the summons and complaint are placed in the mail. The current
26 addresses that Ecology has for USDOE and WRPS are:

1 Kevin Smith, Manager
2 United States Department of Energy
3 Office of River Protection
4 P.O. Box 450
5 Richland, WA 99352

6 Michael C. Ormsby
7 United States Attorney
8 Eastern District of Washington
9 P.O. Box 1494
10 Spokane, WA 99210-1494

11 L. David Olson, President and Project Manager
12 Washington River Protection Solutions
13 P.O. Box 850
14 Richland, WA 99352

15 USDOE and WRPS each agrees to accept service at this address unless they inform
16 Ecology in writing of any address changes.

17 **G. EXTENSION OF DEADLINES SET FORTH IN SECTION II.B**

18 The parties recognize that events can occur that cause delays and that, depending on the
19 nature of the event, an extension of the deadlines set forth in section II.B above, may be
20 justifiable. As such, provisions for an extension of the deadlines are as follows:

21 1. An extension of the deadlines set forth in section II.B above shall be granted
22 only when a request for an extension is submitted in a timely fashion, generally at least thirty
23 (30) days prior to expiration of the deadline for which the extension is requested or within
24 thirty (30) days after USDOE and WRPS determine that an extension will be necessary,
25 whichever is earlier, and good cause exists for granting the extension. All extensions shall be
26 requested in writing to the attention of Jane Hedges, Nuclear Waste Program Manager. The
request shall specify:

- a. The deadline that is sought to be extended;
- b. The length of the extension sought;
- c. The reason(s) for the extension;

1 d. Any deadline for required work in part B that would be affected if the
2 extension were granted; and

3 e. For any request to extend the deadlines for requirements B.3 (Complete
4 Construction, Install Equipment, and Begin Supernatant Retrieval) and B.5 (Complete
5 Waste Retrieval and Provide Waste Retrieval Status Report), a showing that the
6 proposed deadline provides for completing the tasks at the earliest practicable time.

7 2. The burden shall be on USDOE and WRPS to demonstrate to the satisfaction of
8 Ecology that the request for such extension has been submitted in a timely fashion and that
9 good cause exists for granting the extension. Good cause may include, but is not limited to:

10 a. Circumstances beyond the reasonable control and despite the due
11 diligence of USDOE and WRPS, including but not limited to delays caused by
12 unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in
13 reviewing, approving, or modifying documents submitted by USDOE and WRPS; or

14 b. Acts of God or terrorism, including fire, seismic event, flood, blizzard,
15 extreme temperatures, storm, or other unavoidable casualty.

16 However, for purposes of this Agreement, neither increased costs of performance of the
17 terms of this Agreement nor changed economic circumstances shall be considered good cause
18 for granting an extension. The parties may confer whether circumstances beyond the
19 reasonable control of USDOE and WRPS but having some relation to economic circumstances,
20 such as a shutdown of the federal government, may justify extension of the deadlines set forth
21 in section II.B above.

22 USDOE reserves its right to argue that the obligations under this Agreement are subject
23 to the provisions of the Anti-Deficiency Act, 31 U.S.C. § 1341.

24 3. Ecology shall act upon any written request for extension in a timely fashion and
25 not later than fifteen (15) calendar days. Ecology shall give USDOE and WRPS written
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1 notification of any extensions granted pursuant to this Agreement. A requested extension shall
2 not be effective until approved by Ecology.

3 4. An extension shall only be granted for such period of time as Ecology
4 determines is reasonable under the circumstances. Ecology may grant deadline extensions
5 exceeding ninety (90) days only as a result of circumstances deemed exceptional or
6 extraordinary by Ecology.

7 **H. WAIVER OF APPEAL RIGHTS TO THE POLLUTION CONTROL
8 HEARINGS BOARD**

9 USDOE and WRPS understand that they have the right to contest the Order by
10 presenting evidence at a Board hearing. USDOE and WRPS voluntarily waive their right to a
11 Board hearing upon signature and acceptance of this Agreement by representatives for
12 USDOE, WRPS, and Ecology.

13 **I. DISMISSAL OF APPEAL**

14 The parties consent to the submission of this Agreement to the Board and request that,
15 based upon a full and final settlement having been reached, the Board dismiss this appeal with
16 prejudice. Both parties further agree to bear their own costs and attorneys' fees associated with
17 this appeal.

18 **J. EFFECTIVE DATE**

19 This Agreement shall become effective upon issuance of the Board's order dismissing
20 the appeal.

21 **K. SIGNATORIES AUTHORIZED**

22 The undersigned representatives for Ecology, USDOE, and WRPS certify that they are
23 fully authorized by the party whom they represent to enter into the terms and conditions of this
24 Agreement and to legally bind such party thereto.

25 **L. DURATION OF THE AGREEMENT**

26 This Agreement shall be in effect until USDOE and WRPS have received written
notification from Ecology of the timely and satisfactory completion of the requirements set

1 | forth in section B.5 of this Agreement, or as mutually agreed to otherwise, in writing, by the
2 | parties.

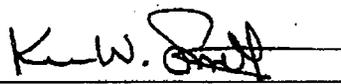
3 | **M. EXECUTION**

4 | This document may be executed in counterparts and may be executed by email, and
5 | each executed counterpart shall have the same force and effect as the original instrument.

6 | STATE OF WASHINGTON
7 | DEPARTMENT OF ECOLOGY

U.S. DEPARTMENT OF ENERGY
Office of River Protection

8 | 
9 | Maia Bellon
10 | Director

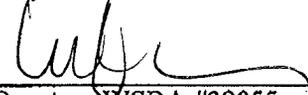

Kevin Smith
Manager

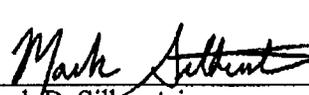
11 | Dated: 9/29/14

Dated: 9/24/2014

12 | ROBERT W. FERGUSON
13 | Attorney General

ROBERT M. CAROSINO
Chief Counsel

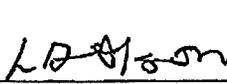
14 | 
15 | Lee Overton, WSBA #38055
16 | Dorothy H. Jaffe, WSBA #34148
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(509) 376-2380

18 | Dated: 9/29/14

Dated: 9/24/2014

20 | WASHINGTON RIVER PROTECTION
21 | SOLUTIONS

22 | 
23 | L. David Olsen
President and Project Manager


Gloria J. Johnson
Stephen B. Cherry
General Counsel
Attorneys for Appellant
(509) 372-9142

25 | Dated: 9/24/14

Dated: 9/24/2014