

SETTLEMENT AGREEMENT MODIFICATION

This Settlement Agreement Modification (“Modification”) is made by and between Hanford Challenge, the United Association of Plumbers and Steamfitters Local Union 598 (collectively, “Hanford Challenge/Local 598”), the State of Washington (“State”), the United States, on behalf of Jennifer Granholm, in her official capacity as Secretary of the United States Department of Energy, and the United States Department of Energy (collectively, Secretary Granholm and the Department of Energy are referred to as “DOE”), and Washington River Protection Solutions LLC (“WRPS”). In this Modification, those entities may collectively be referred to as “Parties” and may individually be referred to as a “Party.” In addition, Hanford Challenge/Local 598 and the State may collectively be referred to as “Plaintiffs.”

WHEREAS, the Parties executed a Settlement Agreement, which is attached hereto as Attachment 1, in September 2018;

WHEREAS, the Settlement Agreement became effective as of October 30, 2018, when the United States District Court for the Eastern District of Washington entered an “Order Staying Case” in Case No. 4:15-cv-5086-TOR [ECF 257];

WHEREAS, the Settlement Agreement remains effective;

WHEREAS, paragraph IX.D of the Settlement Agreement provides that, if the Settlement Agreement “is effective after completion of NUCON Phase Three

testing or on September 1, 2021, whichever is earlier, the Parties will commence further negotiations at that time”;

WHEREAS, subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.C.H of the Settlement Agreement contain obligations that terminate on March 1, 2022;

WHEREAS, paragraph IX.B of the Settlement Agreement states that, “Provided that this Agreement is not terminated pursuant to IX.C below, the obligations contained in subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.H will terminate on March 1, 2022, unless that date is extended by agreement of the Parties”;

WHEREAS, DOE and WRPS have continued to fulfill the applicable obligations contained in subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.H even though those obligations expired on March 1, 2022;

WHEREAS, subparagraph V.A.2 and paragraph V.D of the Settlement Agreement contain commitments regarding “AOP-15 Events” and footnote 5 of the Settlement Agreement states that an “‘AOP-15’ refers to the procedure entitled, ‘Response to Reported Odors or Unexpected Changes to Vapor Conditions’”;

WHEREAS, after the Effective Date of the Settlement Agreement, WRPS revised the AOP-15 procedure and also developed a new procedure, TFC-OPS-OPER-C-67, REV B-1, AOP-15, which is referred to herein as “C-67” ;

WHEREAS, paragraph V.D of the Settlement Agreement addresses Problem Evaluation Requests (“PERs”) but PERs are now referred to as “Action Requests”;

WHEREAS, paragraph XII.M of the Settlement Agreement provides that “[t]he Parties may, in a written document signed by all of the Parties, modify any deadline or other term of this Settlement Agreement”;

WHEREAS, after several discussions, the Parties have determined and agreed that the September 1, 2021 date in paragraph IX.D should be extended to August 1, 2027, so that it occurs after the currently projected date of June 30, 2027, for completion of NUCON Phase III testing;

WHEREAS, the Parties intend and are hopeful that extending the September 1, 2021, date to August 1, 2027, will make the Parties’ further negotiations more efficient and productive;

WHEREAS, after several discussions, the Parties have determined and agreed that the March 1, 2022 termination date for the obligations set forth in subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.H of the Settlement Agreement should be extended to February 1, 2028, so that it occurs six months after August 1, 2027;

WHEREAS, the Parties have agreed that certain obligations regarding AOP-15 events should be modified to include C-67 events; and

WHEREAS, the Parties have agreed that paragraph V.D. should be updated to refer to Action Requests rather than PERs;

NOW, THEREFORE, the Parties, by and through their undersigned counsel, hereby agree as follows:

1. The September 1, 2021 date in Paragraph IX.D of the Settlement Agreement is changed to August 1, 2027.

2. The March 1, 2022 termination date for the obligations set forth in subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.H of the Settlement Agreement is changed to February 1, 2028. This modification changes (a) the March 1, 2022 termination date individually set forth in the Settlement Agreement for those obligations and (b) the March 1, 2022 termination date set forth in paragraph IX.B of the Settlement Agreement.

3. Within 60 days after the Effective Date of this Modification, WRPS will post on a publicly available website the AOP-15 procedure and the C-67 procedure as of the Effective Date of this Agreement.

4. Both the obligation provisions (i.e., posting Event Investigation Reports (“EIRs”) on a publicly available website within two weeks after completion of the EIR) and termination provisions (i.e., until the commitment is terminated on February 1, 2028, pursuant to paragraph IX.B) in subparagraph V.A.2 shall apply to C-67 EIRs completed after the Effective Date of this Modification.

5. The references in paragraph V.D to Problem Evaluation Requests or to PERs are changed to Action Requests.

6. Both the obligation provisions (i.e., making reasonable efforts to post on a publicly available website a monthly list of Action Requests) and termination provisions (i.e., until the commitment is terminated on February 1, 2028, pursuant to paragraph IX.B) in paragraph V.D shall apply to Action Requests regarding C-67 events that occur after the Effective Date of this Modification.

7. Until this commitment is terminated on February 1, 2028, pursuant to paragraph IX.B, DOE and WRPS will post annually, on or around February 28 of each calendar year, on a publicly available website, the updated AOP-15 procedure and C-67 procedure, if any changes are made to such procedures during the previous calendar year.

8. Each undersigned representative of the Parties certifies that he or she is fully authorized by the Party to enter into this Modification and to bind such Party to comply with the terms and conditions of this Modification.

9. This Modification may be executed in any number of counterparts, each of which shall be deemed to constitute an original, and such counterparts shall together constitute one and the same Modification. The execution of one counterpart by any Party shall have the same force and effect as if that Party had signed all other counterparts.

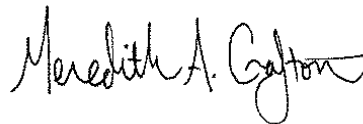
10. Nothing in this Modification shall be construed to make any person or entity not executing this Modification a third-party beneficiary to this Modification.

11. This Modification shall become effective on the date that all of the Parties have executed it, and that date shall be the "Effective Date" of this Modification.

WHEREFORE, after having reviewed the terms and conditions of this Modification, Plaintiffs, WRPS, and the United States on behalf of DOE hereby consent and agree to the terms and conditions of this Modification.

IT IS SO AGREED.

DATE: 01/26/2023



Meredith Ann Crafton
SMITH & LOWNEY PLLC
2317 East John Street
Seattle, Washington 98112
Telephone: (206) 860-2883
Facsimile: (206) 860- 4187
Email: meredith@smithandlowney.com

ATTORNEYS FOR HANFORD
CHALLENGE/LOCAL 598

ROBERT W. FERGUSON
Attorney General

DATE: _____

Thomas J. Young
John A. Level
Kelly T. Wood
Caroline E. Cress
State of Washington

10. Nothing in this Modification shall be construed to make any person or entity not executing this Modification a third-party beneficiary to this Modification.

11. This Modification shall become effective on the date that all of the Parties have executed it, and that date shall be the "Effective Date" of this Modification.

WHEREFORE, after having reviewed the terms and conditions of this Modification, Plaintiffs, WRPS, and the United States on behalf of DOE hereby consent and agree to the terms and conditions of this Modification.

IT IS SO AGREED.

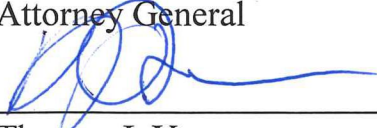
DATE: _____

Meredith Ann Crafton
SMITH & LOWNEY PLLC
2317 East John Street
Seattle, Washington 98112
Telephone: (206) 860-2883
Facsimile: (206) 860- 4187
Email: meredith@smithandlowney.com

ATTORNEYS FOR HANFORD
CHALLENGE/LOCAL 598

ROBERT W. FERGUSON
Attorney General

DATE: 1/31/2023




Thomas J. Young
John A. Level
Kelly T. Wood
Caroline E. Cress
State of Washington

Office of the Attorney General
P.O. Box 40117
Olympia, WA 98504-0117
(360) 586-6770
tomy@atg.wa.gov
johnl3@atg.wa.gov
kellyw1@atg.wa.gov
carolinec@atg.wa.gov

William R. Sherman
State of Washington
Office of the Attorney General
TB-14
Seattle, WA 98104
(206) 326-5494
bills5@atg.wa.gov

ATTORNEYS FOR STATE OF
WASHINGTON

DATE: Jan. 23, 2023


Stephen B. Cherry
General Counsel
Washington River Protection Solutions,
LLC
P.O. Box 850, MSIN H3-23
Richland, WA 99352
(509) 376-6492
stephen_b_cherry@rl.gov

J. Chad Mitchell
Summit Law Group PLLC
1030 N. Center Parkway, Suite 308
Kennewick, WA 99336
(509) 735-5053

ATTORNEYS FOR WASHINGTON
RIVER PROTECTION SOLUTIONS, LLC

TODD KIM
Assistant Attorney General
Environment and Natural Res. Division

DATE: 2/1/2023



Mark A. Nitzczynski
U.S. Department of Justice
Environment & Nat. Res. Division
Environmental Defense Section
999 18th Street, S. Terrace, Suite 370
Denver, CO 80202
(303) 844-1498
mark.nitzczynski@usdoj.gov

AUSTIN D. SAYLOR
U.S. Department of Justice
Environment and Nat. Res. Division
Environmental Defense Section
P.O. Box 7611
Washington, DC 20044
(202) 598-7867
austin.saylor@usdoj.gov

ATTORNEYS FOR THE UNITED
STATES

**ATTACHMENT 1 TO
SETTLEMENT
AGREEMENT
MODIFICATION**

SETTLEMENT AGREEMENT

This Settlement Agreement (“Settlement Agreement” or “Agreement”) is made by and between Hanford Challenge, the United Association of Plumbers and Steamfitters Local Union 598 (collectively, “Hanford Challenge/Local 598”), the State of Washington (“State”), the United States, on behalf of Rick Perry, in his official capacity as Secretary of the United States Department of Energy, and the United States Department of Energy (collectively, Secretary Perry and the Department of Energy are referred to as “DOE”), and Washington River Protection Solutions LLC (“WRPS”). In this Settlement Agreement, those entities may collectively be referred to as “Parties” and may individually be referred to as a “Party.” In addition, Hanford Challenge/Local 598 and the State may collectively be referred to as “Plaintiffs,” and DOE and WRPS may collectively be referred to as “Defendants.”

WHEREAS, on September 5, 2015, Hanford Challenge/Local 598 and the State filed separate citizen suits in the United States District Court for the Eastern District of Washington (Case No. 4:15-cv-5086 and Case No. 4:15-cv-5087, respectively) against DOE and WRPS under the Resource Conservation and Recovery Act (“RCRA”), alleging that vapors from underground tanks, arranged in tank “farms” at the Hanford Nuclear Reservation (“Hanford”) in southeast

Washington, may present an “imminent and substantial endangerment” under RCRA section 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B) ¹;

WHEREAS, on January 22, 2016, the court consolidated the citizen suits filed by Hanford Challenge/Local 598 and by the State as Case No. 4:15-cv-5086-TOR, and the consolidated cases are referred to herein as “the Litigation”;

WHEREAS, on July 21, 2016, both Hanford Challenge/Local 598 and the State filed motions for preliminary injunction in the Litigation;

WHEREAS, on August 23, 2016, DOE filed a motion for judgment on the pleadings, seeking dismissal of the State’s complaint for lack of standing, and WRPS subsequently sought to join that motion in part, also seeking to dismiss the State;

WHEREAS, on August 31, 2016, WRPS and the Hanford Atomic Metal Trades Council (“HAMTC”) entered into a Memorandum of Agreement (“WRPS-HAMTC MOA” or “MOA”) regarding a HAMTC “stop work” that is attached hereto solely for reference purposes;

WHEREAS, the WRPS-HAMTC MOA addresses, *inter alia*, respiratory protections, cartridge testing for air-purifying respirators, and the emergence and

¹ For purposes of this Agreement, “tank” or “tanks” refer to the 149 single-shell and 28 double-shell tanks located in the 200 Area of Hanford.

implementation of additional engineered controls or other approaches related to tank vapors;

WHEREAS, for purposes of this Agreement only, WRPS commits that, under the MOA, (1) there would be review and concurrence by a third party qualified independent entity, selected by HAMTC, regarding whether “additional engineered controls or other approaches [have been] implemented and proven to be effective,” (2) “additional engineered controls or other approaches” are those that have become operational after August 31, 2016, and (3) the analysis of whether “additional engineered controls or other approaches [have been] implemented and proven to be effective” would occur on a farm by farm basis;

WHEREAS, on November 3, 2016, the court denied DOE’s motion for judgment on the pleadings;

WHEREAS, on November 15, 2016, the court denied Plaintiffs’ motions for preliminary injunction;

WHEREAS, starting in spring, 2017, the Parties engaged in a mediation process and other negotiations in an effort to reach a settlement;

WHEREAS, in June, 2017, DOE and WRPS installed upgraded software on the stack ammonia analyzer on the 242-A Evaporator ventilation stack;

WHEREAS, by March, 2018, DOE and WRPS completed the exhauster skid design, and procured the exhausters, for an active exhaust ventilation system in A Farm;

WHEREAS, in September, 2017, DOE and WRPS completed initial, off-site testing of a Strobic Air system;

WHEREAS, in June, 2017, DOE and WRPS completed initial, off-site, “Phase One” testing of the NUCON thermal oxidation system;

WHEREAS, by February, 2018, DOE and WRPS evaluated the use of airline systems as an option for certain work in which supplied air is being used, and posted the written evaluation on a publicly available website;

WHEREAS, by November, 2017, following the completion of pilot-scale testing, DOE and WRPS installed, tested, and now operate, the optimal components and configuration of the vapors monitoring and detection system (“VMDS”) for stack monitoring in AP Farm, with the expectation that the VMDS for stack monitoring in AP Farm will be turned over to operations staff in the near future;

WHEREAS, in September, 2017, DOE and WRPS completed testing and installation of a Public Announcement (“PA”) system in the A Farm complex;

WHEREAS, in September, 2017, DOE and WRPS developed a Data Access and Visualization (“DAV”) platform for sharing monitoring and sampling data, and the DAV platform has been made available to the public;

WHEREAS, in April, 2018, WRPS posted on a publicly available website the *2017 Population Health Trending Summary, Tank Farm Hazardous Waste Worker*;

WHEREAS, in January, 2017, DOE initiated the task of consulting with the Hanford occupational medical services provider to comprehensively review medical data that are available for tank farm workers and to provide expert advice on collection, analysis, and interpretation of these data and their potential to help assess any relationship between medical findings, reported health effects, and/or exposures;

WHEREAS, in January, 2018, DOE asked the Hanford occupational medical services provider to inform DOE of the anticipated completion date for that task, which is referred to below as the “Medical Data Study”;

WHEREAS, DOE and the State have agreed to extend certain tank waste retrieval milestones in the March 11, 2016, Amended Consent Decree in *State of Washington, Dept. of Ecology v. United States Dept. of Energy, et al.*, No. 2:08-cv-5085-RMP (E.D. Wash.) (“Consent Decree Matter”), and DOE and the State are

submitting a joint motion to extend those milestones in that matter,
contemporaneously with the Parties' execution of this Agreement;

WHEREAS, the Parties have negotiated this Settlement Agreement to address
the claims alleged and relief sought in the Litigation, as set forth below;

WHEREAS, unless extended, WRPS's current Tank Operations Contract with
DOE (No. DE-AC27-08RV14800) ("TOC") will expire on September 30, 2018;

WHEREAS, the Parties seek to provide a smooth transition of the commitments
and other terms included in this Settlement Agreement to a successor tank
operations contractor without suggesting that, by signing this Agreement, WRPS is
agreeing to any liabilities, obligations, or costs not included within the general
scope and terms and conditions of the TOC;

WHEREAS, nothing in this Agreement is intended to or will extend WRPS's
obligations, liabilities, and costs beyond the active operations period of the TOC;

WHEREAS, nothing in the TOC or successor contract(s) to the TOC is
intended to limit DOE's obligations under this Agreement;

WHEREAS, the Parties have agreed to this Settlement Agreement without any
admission of fact or law;

WHEREAS, the inclusion of commitments and other terms in this Settlement
Agreement does not constitute any Party's endorsement of, or support for, that

commitment or term, other than as a means of reaching the compromise reflected in this Settlement Agreement; and

WHEREAS, the Parties believe that it is in the interest of the public, the Parties, and judicial economy to enter into this Settlement Agreement rather than engage in protracted litigation;

NOW THEREFORE, the Parties, by and through their undersigned counsel, hereby agree to the following settlement terms and conditions:

I. Parties Bound

A. This Settlement Agreement applies to, is binding upon, and inures to the benefit of the Parties and their successors, assigns, and designees.

B. When this Agreement refers to “Defendants,” “DOE and WRPS,” “DOE or WRPS,” or “DOE and/or WRPS,” it means DOE and/or WRPS (or, as discussed in the following paragraph, the successor entity(ies) awarded the tank operations contract scope of work in place of WRPS). For example, commitments and obligations under this Agreement may be discharged by either Defendant or by both Defendants collectively. So if either DOE (including through the actions of a tank operations contractor or any other entity) or WRPS fulfills the commitment or obligation, then the commitment or obligation will be deemed fulfilled, and neither DOE nor WRPS will be required to do any more to fulfill that commitment or obligation. Additionally, when the Agreement refers to “DOE or WRPS” in

connection with a benefit being provided to them (*e.g.*, a release), then “DOE or WRPS” is to be read so that both DOE and WRPS receive the benefit.

C. Unless extended, the TOC will expire on September 30, 2018. Nonetheless, WRPS has been included with DOE in connection with certain commitments made in this Agreement. A number of commitments included in this Settlement Agreement address items that are scheduled to occur beyond the term of WRPS’s current tank operations contract with DOE; however, the Parties agree that, in signing this Agreement, WRPS does not agree to any commitments, liabilities, obligations, or costs not included within the general scope and terms and conditions of its current contract or an extension of that contract, if any. In addition, if either (i) the TOC is not extended, or (ii) any contract extension terminates prior to the fulfillment of any commitment or other term otherwise applicable to WRPS, then DOE will ensure that such commitments are transferred to the entity awarded the subsequent tank operations contract. Plaintiffs agree that such commitments under this Agreement will be transferred to the successor entity(ies) awarded the tank operations contract scope of work and that such entity(ies) also would receive the protections and benefits provided to DOE and WRPS in this Agreement. However, a failure to include commitments under this Agreement in a tank operations contract scope of work does not excuse compliance with those commitments.

II. Engineering Controls

A. A Farm Exhauster Installation. DOE and WRPS will complete installation of an active exhaust ventilation system in A Farm, at which point the entire A Farm complex can be actively ventilated, by September 1, 2020. Completion of this commitment relies upon timely submission of permitting documents by DOE and/or WRPS and timely completion of required permitting by the Washington Department of Ecology. Ecology estimates that forty weeks are required for Ecology to issue the permit(s). The deadline for DOE and WRPS to complete installation of this active exhaust ventilation system will be delayed by one day for each day beyond forty weeks that the permit remains unapproved after Ecology receives complete permitting information. If Ecology does not grant the permit(s) required for this system, then DOE and WRPS will not be required to complete this commitment. However, a request by Ecology for additional permit information shall not constitute a permit denial. Nothing in this Agreement shall be interpreted as binding on Ecology in making its permit decision.

B. Strobic Air Testing and Installation. Strobic Air involves a high velocity fan that mixes the contents of a ventilation stack (tank ventilation gases and vapors) with ambient air, and then expels them from the stack at high speed, above workers' breathing zones. "Strobic Air" refers to a particular manufacturer.

1. DOE and WRPS posted on a publicly available website a summary of the results of the initial off-site testing of a Strobic Air system by August 31, 2018.

2. DOE and WRPS will complete Phase Two off-site testing of a Strobic Air system by November 30, 2018.

3. DOE and WRPS will install Strobic Air at one location in the tank farms by March 1, 2022, except that installation will not be required if, after Phase Two off-site testing, DOE determines that (i) installation will compromise nuclear safety requirements or (ii) permitting or other requirements or issues (*e.g.*, design limitations, scaling limitations) would pose an unreasonable impediment to proceeding to installation. The potential installation location, which could be, for example, a single tank, a group of tanks, or a tank farm, cannot yet be specified but will be selected by DOE at its discretion. Completion of this commitment relies upon timely submission of permitting documents by DOE and/or WRPS and timely completion of required permitting by Ecology. Ecology estimates that forty weeks are required for Ecology to issue the permit(s). The deadline for DOE and WRPS to complete Strobic Air installation will be delayed by one day for each day beyond forty weeks that the permit remains unapproved after Ecology receives complete permitting information. If Ecology does not grant the permit(s) required for this system, then DOE and WRPS will not be required to complete this commitment. However, a request by Ecology for additional permit information

shall not constitute a permit denial. Nothing in this Agreement shall be interpreted as binding on Ecology in making its permit decision.

4. Force Majeure That Prevents Proceeding With Strobic Air.

a. If a Force Majeure event related specifically to Strobic Air (*e.g.*, bankruptcy of the manufacturer or vendor) prevents DOE and WRPS from proceeding with Strobic Air, then DOE will undertake reasonable efforts to seek another entity that would provide a system of similar technology on a similar scale to Strobic Air's.

b. If DOE and WRPS are able to identify another entity that would provide such a system on reasonable terms, then: (i) DOE and WRPS will work with that entity to proceed with testing and/or installation of such system; and (ii) Plaintiffs will agree to reasonable modifications to this Settlement Agreement to allow DOE and WRPS additional time and other appropriate flexibility to proceed with that entity. If the Parties are unable to reach agreement on such modifications, then the Parties will engage in dispute resolution as set forth below in Section X to resolve the dispute.

c. Regardless of the manufacturer or vendor providing the system, DOE's and WRPS's commitments to pursue a high velocity fan such as Strobic Air's, as set forth above, only apply to one such system; that commitment does not

entail repeat or multiple evaluations or installations with different systems or entities.

d. Nothing in this subsection (II.B.4.a-d) limits the applicability of terms regarding Ecology's timely permitting (subparagraph II.B.3 above) or the general Force Majeure provision (Section XI below).

C. NUCON Thermal Oxidation System. To treat vapors, "NUCON" technology uses a combination of thermal oxidation, carbon adsorption, and catalytic conversion of the combustion products intended to capture or destroy tank vapor constituents. "NUCON" refers to a particular vendor.

1. NUCON Qualified Technical Person. As set forth below, DOE and WRPS will consider input from a qualified technical person ("QTP"), chosen by Plaintiffs, at certain times on specific issues related to NUCON ("NUCON QTP"). The NUCON QTP must meet the following criteria: (1) technical degree in chemistry or related science; (2) experience with nuclear tank waste chemistry (but not necessarily with Hanford tank waste chemistry); (3) experience in analytical chemistry; and (4) expertise in gas destruction technology. Plaintiffs may employ more than one person to support the NUCON QTP, provided, however, that: (a) all persons who contribute to (including those who comment on) the NUCON QTP input are listed individually on the input; (b) the NUCON QTP input would consist of one product, with one set of unified comments; (c) the NUCON QTP would be

one person who (i) meets the criteria set forth above and (ii) would be responsible for screening, vetting and signing off on the product that is submitted. In addition, the NUCON QTP would serve as the single point of contact with DOE and WRPS. WRPS will provide a single point of contact for this QTP. DOE will not object to Ecology's using the mixed waste funds it already receives from DOE to hire the person to serve as the NUCON QTP; however, DOE's non-objection will not be construed as a concession or admission regarding the extent of Ecology's RCRA/Hazardous Waste Management Act² jurisdiction or authority, and the Parties reserve all of their rights and defenses regarding such jurisdiction or authority.

2. Phase Two NUCON Testing.

a. Phase One of NUCON testing has been completed, and DOE and WRPS have determined to proceed with Phase Two testing. DOE and WRPS will complete the second phase of NUCON testing (*i.e.*, parameterizing of variables, such as the chemicals at issue, feed concentrations and flow rate) by December 31, 2018.

² Ecology is authorized by the United States Environmental Protection Agency to implement the Hazardous Waste Management Act ("HWMA"), RCW 70.105, in lieu of RCRA.

b. The Phase Two testing results for the existing NUCON system (in NUCON's current technology and scale, with input concentrations reflective of tank headspace conditions) will report on whether the system met the following performance standards at the point of emission from the unit or platform: (1) for select Volatile Organic Compounds in aggregate, (a) 95% destruction as measured by commercial PIDs (*i.e.*, photo-ionization detectors), and (b) a collective concentration not greater than 500 parts per million ("ppm"); and (2) 10% of Occupational Exposure Limits ("OELs") for an appropriate subset of select Contaminants of Potential Concern ("COPCs"). The COPCs that are included in the appropriate subset of select COPCs were determined in connection with development of the Phase Two test plan, with input from the NUCON QTP on the plan and the appropriate subset of select COPCs. For the appropriate subset of select COPCs, it will be assumed that the "10% of the OEL" criterion is met if the detection limit is below 10% of the OEL and the results are below the detection limit. Defendants agree to include and use these performance standards in this context solely for purposes of compromise in order to reach this negotiated Agreement, and such inclusion and use does not mean that Defendants agree or concede that the performance standards are appropriate criteria to evaluate worker safety; Defendants maintain that using concentrations at a source rather than in worker breathing zones is inappropriate for evaluating worker safety.

c. By March 31, 2019, DOE and WRPS will post on a publicly available website the results of the Phase Two testing and will notify Plaintiffs of the posting.

3. Potential Phase Three NUCON Testing.

a. By April 30, 2019, the NUCON QTP may provide input regarding whether DOE and WRPS should proceed to Phase Three testing (*i.e.*, on-site testing) of NUCON, including the date, location and configuration of potential Phase Three testing. DOE and WRPS will consider such input from the NUCON QTP.

b. If NUCON meets the performance standards during Phase Two testing, then DOE and WRPS will proceed with Phase Three testing of NUCON unless DOE determines that (i) Phase Three testing will compromise nuclear safety requirements or (ii) permitting or other requirements or issues (*e.g.*, design limitations, scaling limitations) would pose an unreasonable impediment to proceeding to Phase Three testing. In addition, DOE and WRPS retain discretion to proceed with Phase Three testing even if NUCON does not meet the performance standards during Phase Two testing.

c. If DOE and WRPS determine to proceed with Phase Three testing, then the following steps will occur:

i. By June 30, 2019, DOE and WRPS will identify a projected date to complete Phase Three testing based on DOE and WRPS's reasonable efforts to determine such date. The projected date provided by DOE and WRPS will be incorporated by reference into the terms of this Settlement Agreement.

ii. Ecology will receive information about the planned location and configuration of Phase Three testing as part of the permitting process.

iii. Within 90 days after the date provided by DOE and WRPS pursuant to subparagraph II.C.3.c.i above for completion of Phase Three testing, DOE and WRPS will post on a publicly available website the results of the Phase Three testing and will notify Plaintiffs of the posting.

d. Completion of this commitment relies upon timely submission of permitting documents by DOE and/or WRPS and timely completion of required permitting by Ecology. Ecology estimates that forty weeks will be required for Ecology to issue the permit(s). The deadline for DOE and WRPS to complete Phase Three testing will be delayed by one day for each day beyond forty weeks that the permit remains unapproved after Ecology receives complete permitting information. If Ecology does not grant the permit(s) required for this system, then DOE and WRPS will not be required to complete this commitment. However, a request by Ecology for additional permit information shall not constitute a permit

denial. Nothing in this Agreement shall be interpreted as binding on Ecology in making its permit decision.

4. Potential NUCON Installation.

a. The potential NUCON installation addressed in this Agreement would entail installing one NUCON unit; so, for example, if DOE and WRPS determine to install NUCON and that NUCON unit(s) are to be used with individual tanks, then DOE and WRPS's commitment would entail installing one unit within one tank farm (and not, for example, one unit for each of the tanks within the tank farm).

b. Within 120 days after completion of Phase Three testing, the NUCON QTP may provide input regarding whether DOE and WRPS should proceed with NUCON installation, including the date, location and configuration of the potential installation. DOE and WRPS will consider such input from the NUCON QTP.

c. If NUCON meets the performance standards during Phase Three testing, then DOE and WRPS will proceed with NUCON installation unless DOE determines that (i) installation will compromise nuclear safety requirements or (ii) permitting or other requirements or issues (*e.g.*, design limitations, scaling limitations) would pose an unreasonable impediment to proceeding with the installation. DOE and WRPS retain discretion to proceed with NUCON

installation even if NUCON does not meet the performance standards during Phase Three testing.

d. If DOE and WRPS determine to proceed with NUCON installation, then the following steps will occur:

i. Within 90 days after DOE and WRPS post the results of the Phase Three testing, DOE and WRPS will identify a projected date to complete NUCON installation based on DOE's and WRPS's reasonable efforts to determine such date. The projected date provided by DOE and WRPS will be incorporated by reference into the terms of this Settlement Agreement.

ii. Ecology will receive information about the planned location and configuration of Phase Three installation as part of the permitting process.

e. Completion of this commitment relies upon timely submission of permitting documents by DOE and/or WRPS and timely completion of required permitting by Ecology. Ecology estimates forty weeks will be required for Ecology to issue the permit(s). The deadline for DOE and WRPS to complete NUCON installation will be delayed by one day for each day beyond forty weeks that the permit remains unapproved after Ecology receives complete permitting information. If Ecology does not grant the permit(s) required for this system, then DOE and WRPS will not be required to complete this commitment. However, a

request by Ecology for additional permit information shall not constitute a permit denial. Nothing in this Agreement shall be interpreted as binding on Ecology in making its permit decision.

5. Notice and Dispute Resolution. Prior to DOE's and WRPS's terminating the NUCON testing and installation process set forth in subparagraphs II.C.2.a – C.4.e above, DOE and WRPS will provide notice of a "Dispute" and the Parties will engage in dispute resolution pursuant to Section X of this Agreement.

6. Force Majeure That Prevents Proceeding With NUCON.

a. If a Force Majeure event related specifically to NUCON (*e.g.*, bankruptcy of the manufacturer or vendor) prevents DOE and WRPS from proceeding with NUCON, then DOE will undertake reasonable efforts to seek another entity that would provide a system of similar technology on a similar scale to NUCON's.

b. If DOE and WRPS are able to identify another entity that would provide such a system on reasonable terms, then: (a) DOE and WRPS will work with that entity to proceed with testing and/or installation of such system; and (b) Plaintiffs will agree to reasonable modifications to this Settlement Agreement to allow DOE and WRPS additional time and other appropriate flexibility to proceed with that entity. If the Parties are unable to reach agreement on such

modifications, then the Parties will engage in dispute resolution pursuant to Section X of this Agreement to resolve the dispute.

c. Regardless of the manufacturer or vendor providing the system, DOE's and WRPS's commitments to pursue a thermal oxidation system such as NUCON's, as set forth above, only apply to one such system that DOE and WRPS will use to evaluate whether the performance standards are met and whether the testing and installation should proceed; that commitment does not entail repeat or multiple evaluations or installations with different systems or entities.

d. Nothing in this subsection (II.C.6.a-d) limits the applicability of terms regarding Ecology's timely permitting (subparagraphs II.C.3.d and II.C.4.e above) or the general Force Majeure provision (Section XI below).

III. Interim Worker Protections

A. WRPS-HAMTC MOA.

1. The WRPS-HAMTC MOA is attached hereto for reference purposes only and is neither incorporated into nor made enforceable under this Agreement.

2. To the extent required by the MOA³, WRPS will continue cartridge testing and the use of interim mandatory respiratory protections, consistent with

³ As used here, below in this Section III, and in subparagraph IX.C.(2), "WRPS-HAMTC MOA" and "MOA" include any subsequent, similar agreement that (i)

cartridge testing results, until additional engineered controls or other approaches (*i.e.*, those controls or approaches that have become operational after August 31, 2016) are implemented and proven to be effective.

3. WRPS will provide a final draft assessment regarding the implementation of “additional engineered controls or other approaches,” if any, to the independent third-party reviewer for concurrence on whether those controls or other approaches have proven to be effective. At that time, WRPS will provide Plaintiffs with a copy of that final draft assessment. The implementation of “additional engineered controls or other approaches,” if any, will occur on a farm by farm basis.

4. Input From Cartridge Testing QTP (“CT QTP”).

a. WRPS will consider input from the CT QTP, chosen by Plaintiffs, as specified in subparagraph III.A4.b below. The CT QTP must meet the following criteria: (1) technical degree in chemistry or related science; (2) experience with tank waste chemistry (but not necessarily with Hanford tank waste chemistry); and (3) experience in analytical chemistry. Plaintiffs may employ more than one person to support the CT QTP, provided, however, that: (a) all persons who contribute to (including those who comment on) the CT QTP input

contains substantially the same terms as the MOA and (ii) is executed by HAMTC and by either WRPS or a successor tank operations contractor.

are listed individually on the input; (b) the CT QTP input would consist of one product, with one set of unified comments; (c) the CT QTP would be one person who (i) meets the criteria set forth above and (ii) would be responsible for screening, vetting and signing off on the product that is submitted. In addition, the CT QTP would serve as the single point of contact with WRPS. WRPS will provide a single point of contact for this QTP. DOE will not object to Ecology's using the mixed waste funds it already receives from DOE to hire the person to serve as the CT QTP; however, DOE's non-objection will not be construed as a concession or admission regarding Ecology's RCRA/HWMA jurisdiction or authority, and the Parties reserve all their rights and defenses regarding such jurisdiction or authority.

b. WRPS will provide to the CT QTP drafts of all cartridge analysis reports developed after the Effective Date of this Agreement under the MOA by the Pacific Northwest National Laboratory ("PNNL"). WRPS will be commenting on the draft cartridge analysis reports at the same time, and the comment period will be 30 days. The CT QTP's comments will be provided to PNNL, DOE and WRPS. WRPS will ensure that PNNL evaluates and responds to the CT QTP's comments.

5. Provided that the terms of the MOA remain in force, and this Settlement Agreement remains effective, then the commitments set forth in

subparagraphs III.A.2-4 above and this subparagraph (III.A.5) will terminate on March 1, 2022, as provided in paragraph IX.B. While this Settlement Agreement remains effective, DOE or WRPS will notify Plaintiffs within fourteen (14) days if any of the following occur: (a) WRPS determines that the terms of the MOA have been fulfilled; (b) WRPS agrees to terminate the MOA; or (c) WRPS agrees to substantively modify the terms of the MOA. In the event that DOE or WRPS notifies Plaintiffs that the MOA is terminated or substantively modified, Plaintiffs may file a motion with the Court to reactivate the Litigation pursuant to IX.C.(2) below. If the Parties are in disagreement with regard to whether the MOA has been terminated or substantively modified, then Plaintiffs may file a motion in the Litigation, pursuant to IX.C.(2) below, seeking to establish that such termination or modification has occurred. Plaintiffs' option to file a motion under this subparagraph (III.A.5) will not be triggered if the MOA is terminated solely because the terms of the MOA have been fulfilled.

B. Customized Control Strategy for Waste-Disturbing Activities.

1. Using a tailored and risk-based approach, DOE and WRPS will continue to use work planning processes to develop an appropriate hazard control

strategy for each waste-disturbing activity⁴ in tank farms. Representatives from a cross-section of the workforce expected to perform the jobs directly associated with the particular waste-disturbing activity will be included in the work planning process.

2. The following five-step protocol will be used in the work planning processes: (a) define the scope of work; (b) analyze the hazards (including, *e.g.*, vapors); (c) develop and implement controls; (d) perform the work; and (e) obtain feedback and assess potential areas for improvement.

⁴ For purposes of this Agreement, a “waste-disturbing activity” includes activities – such as the sluicing of waste in the tanks so that the waste can be pumped out, waste retrieval activities (the pumping of waste from one tank to another tank), and evaporator campaigns (which involve the transfer of waste between tanks and the evaporator, in order to reduce the amount of liquid from the tanks) – that materially increase the concentrations of the tank headspace gases and vapors. A “waste-disturbing activity” does not include, for example, general maintenance of monitoring and leak detection system equipment (*e.g.*, ENRAFs), starting or stopping exhausters, equipment replacement, or chemical/water additions involving amounts that do not cause a material increase in the concentrations of the tank headspace gases and vapors. In addition, consistent with current practice, “each waste-disturbing activity” refers to different types of activities, so that a new hazard control strategy does not need to be developed when the same activity (*e.g.*, an evaporator campaign) is performed multiple times. However, significant changes to established activities (*e.g.*, increases of volume, scale, etc.) may warrant hazard control strategy modifications and will be evaluated by DOE and WRPS on a case-by-case basis.

3. For each waste-disturbing activity, a customized set of hazard controls will be evaluated and implemented consistent with the outcomes of the work planning process, as appropriate. Accordingly, each hazard control strategy may be unique to each particular waste-disturbing activity. Such control strategies may include, for example: (a) engineered controls; (b) monitoring or detection equipment; (c) increased worker communication via the use of signage, reader boards or a public announcement system; (d) temporary road closures or limited access areas for authorized personnel only; (e) deployment of a mobile lab to obtain vapors data; and (f) personal protective equipment (often referred to as “PPE”).

4. The commitments in subparagraphs III.B.1-3 above terminate on March 1, 2022, as provided in paragraph IX.B.

IV. Air Monitoring, Sampling and Alarming

A. VMDS in A and AX Farms. DOE and WRPS will complete design for the optimal components and configuration of the VMDS for stack monitoring in the A and AX Farms by December 31, 2018.

V. Information Sharing

A. AOP-15 Events.

1. Within 30 days after the Effective Date of this Agreement, WRPS will post on a publicly available website the AOP-15 procedure as of December 31, 2017.⁵

2. Until this commitment is terminated on March 1, 2022 pursuant to paragraph IX.B, DOE and WRPS will post on a publicly available website all AOP-15 Event Investigation Reports (“EIRs”) completed after the Effective Date of this Agreement. Such postings will occur within two weeks after completion of the EIR.

B. Procedures and Documents Effective as of December 31, 2017. Within 30 days after the Effective Date of this Agreement, WRPS will make reasonable efforts to post on a publicly available website the following documents as effective on December 31, 2017: (1) procedures for determining appropriate PPE; (2) procedures for alternative respiratory protection assessments (“ARPAs”); (3) procedures for assessing worker hazards (including vapor risks); and (4) tank vapor information sheets (“TVISs”) for the COPCs in the tank farms.

⁵ An “AOP-15” refers to the procedure entitled, “Response to Reported Odors or Unexpected Changes to Vapor Conditions.”

C. Completed ARPAs. Until this commitment is terminated on March 1, 2022 pursuant to paragraph IX.B, DOE and WRPS will make reasonable efforts to post on a publicly available website all tank farm-related ARPAs completed after the Effective Date of this Agreement. Such postings shall occur within 45 days after completion of the ARPA.

D. Problem Evaluation Requests. Until this commitment is terminated on March 1, 2022 pursuant to paragraph IX.B, DOE and WRPS will make reasonable efforts to post on a publicly available website a monthly list of Problem Evaluation Requests (“PERs”) regarding AOP-15 events that occur after the Effective Date of this Agreement.

E. Health Trending Summaries. Beginning with the 2018 summary, DOE and WRPS will post on a publicly available website the Health Trending Summaries for tank farm workers. The commitments in this paragraph V.E terminate on March 1, 2022 as provided in paragraph IX.B.

F. Medical Surveillance Program. Within 30 days after the Effective Date of this Agreement, DOE and WRPS will post on a publicly available website a thorough explanation of the tank farm waste worker medical surveillance program (routine occupational tests and their purpose). This information will be updated annually if there are changes to the program. The commitments in this paragraph V.F terminate on March 1, 2022 as provided in paragraph IX.B.

G. Return to Work Policy. Within 30 days after the Effective Date of this Agreement, DOE and WRPS will post on a publicly available website a thorough explanation of the current policy concerning return to work following a reported exposure and before the results of all medical tests are available. The explanation will include a statement that a determination by the Hanford occupational and medical services provider that a worker may return to work is not to be construed by the worker as a medical diagnosis.

H. TVISs and Exposure Data. Within 30 days after the Effective Date of this Agreement, DOE and WRPS will institute a process by which, upon request from a tank farm worker, DOE and WRPS will timely provide applicable TVISs and the worker's personal exposure data, if any, regarding a tank farm-related vapor event. The commitments in this paragraph V.H terminate on March 1, 2022 as provided in paragraph IX.B, and nothing in this Agreement will be construed to mean that DOE and WRPS must implement the process beyond such date.

I. Former Worker Medical Screening Program. Within 30 days after the Effective Date of this Agreement, DOE will provide Hanford workers with information on a publicly available website regarding their potential ability to participate in the DOE Former Worker Medical Screening Program.

J. Health Process Plan. After the plan is cleared for public release, DOE and WRPS promptly will post on a publicly available website the Health Process Plan entitled “PNNL-25791, Hanford Tank Farm Exposure and Risk Assessment Plan.”

K. PNNL Health Study. After the study is completed and cleared for public release, DOE and WRPS promptly will post on a publicly available website the Chronic OELs With Regulatory Basis, PNNL-26777.

VI. The Occupational Medical Services Provider

A. Within 30 days after the Effective Date of this Agreement, DOE will direct the Hanford occupational medical services provider to inform workers of their rights to seek medical diagnoses from a qualified medical provider when workers report to the Hanford occupational medical services provider for symptoms possibly related to vapor exposure.

B. After the Hanford occupational medical services provider informs DOE of the anticipated completion date for the Medical Data Study, DOE will inform Plaintiffs of that date.

C. Within 30 days after the Effective Date of this Agreement, DOE will direct the Hanford occupational medical services provider that, upon request from a tank farm worker, the provider will timely provide its medical data related to the worker.

VII. The State's Regulatory Forbearance

The State will forbear from seeking to exercise RCRA/HWMA authority to:

(1) regulate gaseous emissions from the tanks and their ventilation systems to the atmosphere; and (2) require the application of any gaseous emission controls (including treatment/abatement technology) to such tanks. This forbearance is limited to the foregoing and will not be construed to otherwise exempt the tanks and their ventilation systems from applicable RCRA/HWMA requirements.

Nothing in this Section will be construed as a concession or admission regarding the extent of Ecology's RCRA/HWMA jurisdiction or authority, including whether such jurisdiction or authority does or does not exist, and the Parties reserve all their rights and defenses regarding such jurisdiction or authority. The State's regulatory forbearance will continue so long as this Agreement remains effective, except that the State may terminate its regulatory forbearance if DOE and WRPS terminate the NUCON testing and installation process under this Agreement. Prior to the State's terminating its regulatory forbearance, the State will provide notice of a "Dispute" and the Parties will engage in dispute resolution pursuant to Section X of this Agreement.

VIII. Litigation Costs

Within one hundred twenty (120) days after either DOE's receipt of correct payment and deposit information described below from Hanford Challenge/Local

598 and the State, or the Effective Date of this Settlement Agreement, whichever is later, the United States on behalf of DOE will pay to counsel for Hanford Challenge/Local 598 the amount of \$416,250.00 and will pay to the State of Washington Office of the Attorney General the amount of \$508,750.00. Counsel for Hanford Challenge/Local 598 and for the State will provide the following payment and deposit information to counsel for DOE:

EFT Payable to
Bank name
Bank address
ABA Routing number
Account number
Name and Type (Checking or Savings) of Account
Taxpayer identification number

Plaintiffs hereby release any and all claims and potential claims under any statute or other authority, including, but not limited, to RCRA section 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B), for costs of litigation, attorney fees, expert fees, court costs, and other litigation costs or fees accrued through the Effective Date of this Settlement Agreement in connection with the Litigation.

IX. Stay of Litigation and Further Negotiations Among the Parties

A. Contemporaneously with the Parties' execution of this Agreement, DOE and the State are submitting a joint motion to extend the deadlines for certain tank waste retrieval milestones in the Consent Decree Matter. If the joint motion in the Consent Decree Matter is not granted, then the Parties will meet and confer

regarding how to proceed in that matter and in the Litigation. If the joint motion in the Consent Decree matter is granted, then the Parties promptly will file a joint motion in the Litigation seeking a stay of the Litigation that will last while this Settlement Agreement is effective. If the court does not stay the Litigation in substantial accordance with the terms of that joint motion seeking a stay, then this Settlement Agreement will be null and void, this Agreement will not become effective, and the Parties will meet and confer regarding how to proceed with the Consent Decree Matter and the Litigation. If the court stays the Litigation in substantial accordance with the terms of the joint motion filed in the Litigation, then this Agreement will become effective as of that date (*i.e.*, the Effective Date).

B. Provided that this Agreement is not terminated pursuant to IX.C below, the obligations contained in subparagraphs III.A.2-5, III.B.1-3, V.A.2, V.C-F, and V.C.H will terminate on March 1, 2022, unless that date is extended by agreement of the Parties.

C. The Parties may, by written agreement, extend the time that this Agreement is effective. If the Parties do not agree to such extension, then this Agreement will be effective from the Effective Date until one of the following occurs:

(1) Conclusion of further negotiations under IX.D.1-4 below or the installation of NUCON under II.C.4.d above (if DOE and WRPS proceed with such installation), whichever is later;

(2) Either (a) Plaintiffs receive notification that the WRPS-HAMTC MOA has been terminated or substantially modified, as set forth in III.A.5 above, and Plaintiffs seek to reactivate the Litigation on that basis; or (b) Plaintiffs are successful in a motion to the court in the Litigation, establishing that the MOA has been terminated or substantially modified, as set forth in subparagraph III.A.5 above (and thus excluding a situation in which the MOA is terminated or otherwise ceases to be effective solely because the terms of the MOA have been fulfilled);

(3) Plaintiffs are successful in a motion to the court in the Litigation, establishing that Plaintiffs are entitled to relief from the stay pursuant to the standard that is applicable to motions seeking relief under Federal Rule of Civil Procedure 60(b)(6); or

(4) A Party seeks to reactivate the Litigation at the conclusion of further negotiations pursuant to subparagraph IX.D.4.

Prior to Plaintiffs' filing a motion with the court under subparagraphs IX.C.(1)-(3), Plaintiffs will provide DOE and WRPS with notice of a "Dispute" and the Parties will engage in dispute resolution as provided in Section X below.

D. If this Agreement is effective after completion of NUCON Phase Three testing or on September 1, 2021, whichever is earlier, the Parties will commence further negotiations at that time.

1. The further negotiations will include at least the following: (a) potential further implementation of engineering controls if one or both of the phased testing processes (*e.g.*, NUCON, Strobic Air) lead to installation, including the schedule for such implementation and the mechanism under which it occurs, with Plaintiffs' acknowledgement that installation of engineering controls could occur in a variety of configurations; and (b) the status of respiratory protections and of the Interim Worker Protections discussed above in Section III.

2. The Department of Ecology will be included in the further negotiations, but DOE and WRPS do not concede that Ecology has any authority that DOE or WRPS may dispute, and DOE and WRPS retain all rights to challenge the scope of Ecology's authority, including under RCRA/HWMA.

3. The Parties may utilize the services of a mediator during these further negotiations. If the Parties have entered into a mediation agreement with a mediator at least 21 days prior to commencement of further negotiations, then DOE and WRPS will provide to Plaintiffs, no later than 21 days prior to such commencement, a written description of DOE and WRPS's proposed path forward regarding the issues to be negotiated. That submission will be protected by Federal Rule of Evidence 408 and may have additional protection under the mediation agreement. If the Parties have not entered into a mediation agreement with a mediator at least 21 days prior to commencement of further negotiations, then

DOE and WRPS will not be required to provide the written description to Plaintiffs.

4. If Plaintiffs are dissatisfied with the progress or outcome of further negotiations, then Plaintiffs may seek to reactivate the Litigation and pursue their claims. Alternatively, any Party may seek to reactivate the Litigation and seek dismissal of Plaintiffs' claims. Reactivation under this subparagraph IX.D.4 will not be limited to the standard articulated in Federal Rule of Civil Procedure 60(b)(6). Prior to seeking reactivation, Plaintiffs will provide DOE and WRPS with notice of a "Dispute" and the Parties will engage in dispute resolution as provided in Section X below; the Parties will use a mediator to attempt to address any contested issues that remain after the Parties have completed the dispute resolution procedures in Section X.

E. During the time that the Settlement Agreement is effective, Plaintiffs may not pursue the claims they asserted in the Litigation, and for the time that the Agreement is effective Plaintiffs hereby release, discharge and covenant not to assert (by way of commencement or refile of any action, the joinder of DOE or WRPS in an existing action, or in any other fashion) any and all claims, causes of action, suits or demands of any kind in law or in equity alleging: (1) an imminent and substantial endangerment to health or the environment related to leaks or releases of tank vapors at Hanford or (2) any other hazard or effect related to

worker exposures to tank vapors at Hanford. Nothing in this paragraph affects the State's separate regulatory authority under RCRA/HWMA, which is addressed in Section VII above.

X. Dispute Resolution

The Parties agree to undertake reasonable efforts to resolve any future dispute arising out of this Agreement (the "Dispute") in an amicable manner. For purposes of this Agreement, a "Dispute" includes Plaintiffs' potential filing of a motion as provided in IX.C and IX.D.4 above and the other circumstances in which a Party is required to provide notice of a "Dispute" under this Agreement. In the event of a disagreement between Plaintiffs and Defendants concerning the interpretation or performance of any aspect of this Settlement Agreement, or of Plaintiffs' potential filing of a motion as provided in IX.C and IX.D.4 above or the other circumstances in which a Party is required to provide notice of a "Dispute" under this Agreement, the dissatisfied or potential moving Party or Parties shall provide the other Parties with written notice of the Dispute, information sufficient to inform the other Parties of the specific nature and basis of the Dispute, and a request for informal negotiations.⁶ The Parties shall meet and confer in a good faith effort to attempt to resolve the Dispute within sixty (60) days after receipt of

⁶ For purposes of this Agreement, "informal negotiations" means discussions between the Parties conducted with, or without, the services of a mediator.

the written notice or such time thereafter as is mutually agreed. If the Parties are unable to resolve the Dispute informally within sixty (60) days after receipt of the written notice or such time thereafter as is mutually agreed, then Plaintiffs may file a motion as provided in IX.C and IX.D.4 above (including the use of a mediator where specified). Defendants expressly preserve, and do not waive or limit, any and all defenses relating to any such motion. Filing such a motion is Plaintiffs' sole remedy to address an unresolved Dispute. Neither contempt of court nor specific performance, mandamus, or any other remedy seeking to compel DOE or any department, agency or instrumentality of the United States, or WRPS or any other DOE or federal contractor, to take any of the actions described in this Settlement Agreement, is an available remedy under this Agreement.

XI. Force Majeure

The possibility exists that circumstances outside the reasonable control of DOE and WRPS could delay compliance with the timetables set forth in this Settlement Agreement. Such circumstances include, but are not limited to, Acts of God, government shutdown, work stoppages, unforeseen nuclear safety issues, unforeseen permitting issues, and events that require an immediate or emergency response by DOE or WRPS. Should a delay occur due to such circumstances, then any resulting failure to meet the deadlines or other terms set forth in this Agreement shall not constitute a failure to comply with those deadlines or other

terms, and any deadlines so affected shall be extended one day for each day of the delay. DOE or WRPS will provide Plaintiffs with reasonable notice in the event that DOE or WRPS invoke this term of this Settlement Agreement. Any dispute regarding invocation of this provision shall be resolved in accordance with the dispute resolution provisions of Section X above.

XII. Miscellaneous Provisions

A. Any notice required or made with respect to this Settlement Agreement shall be in writing and shall be effective upon receipt. Any notice or other documents required pursuant to this Settlement Agreement shall be sent to the following contact persons:

For Hanford Challenge/Local 598:

Smith & Lowney
Richard Smith
Meredith Crafton
2317 East John St.
Seattle, WA 98112
(206) 860-2883
Email: richard@smithandlowney.com
Email: meredith@smithandlowney.com

Executive Director
Hanford Challenge
2719 E Madison Street, Ste 304
Seattle, WA 98112
(206) 292-2850
Email: tomc@hanfordchallenge.org

Business Manager

United Association of Plumbers and Steamfitters Local Union 598
1328 Road 28
Pasco, WA 99301
(509) 545-1446
Email: randy@ua598.org

For the State:

Thomas J. Young
Andrew A. Fitz
State of Washington
Office of the Attorney General
Ecology Division
P.O. Box 40117
Olympia, WA 98504-0117
Phone: 360-586-6770
Email: tomy@atg.wa.gov
Email: andyf@atg.wa.gov

Kelly T. Wood
State of Washington
Office of the Attorney General
Counsel for Environmental Protection Unit
800 5th Ave. Suite 2000, TB-14
Seattle, WA 98104
Phone: (206) 326-5493
Email: kelly.wood@atg.wa.gov

For WRPS:

Stephen B. Cherry
Deputy General Counsel
Washington River Protection Solutions, LLC
P.O. Box 850, MSIN H3-23
Richland, WA 99352
Telephone: (509) 376-6492
stephen_b_cherry@rl.gov

J. Chad Mitchell
Summit Law Group PLLC
1030 N. Center Parkway, Ste. 308
Kennewick, WA 99336
Telephone: (509) 735-5053
Facsimile: (206) 676-7001
Email: chadm@summitlaw.com

David M. Heineck
Summit Law Group, PLLC
315 Fifth Avenue South, Suite 1000
Seattle, WA 98104
Email: davidh@summitlaw.com

For DOE:

Chief Counsel
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
MSIN: H5-30
Richland, Washington 99352
Phone: (509) 376-4603
Fax: (509) 376-4590

Deputy General Counsel for Litigation, Regulation and Enforcement
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585
Phone: (202) 586-8700
Fax: (202) 586-3274

Chief, Environmental Defense Section
U.S. Department of Justice
Environment & Natural Resources Division

P.O. Box 7611
Washington, D.C. 20044
Phone: (202) 514-2219
Fax: (202) 514-8865

Austin D. Saylor
Sheila Baynes
Brian S. Uholik
U.S. Department of Justice
Environment & Nat. Res. Division/EDS
P.O. Box 7611
Washington, D.C. 20004
Phone: (202) 514-1880 (Saylor)
Phone: (202) 514-2617 (Baynes)
Phone: (202) 305-0733 (Uholik)
Email: austin.saylor@usdoj.gov
Email: sheila.baynes@usdoj.gov
Email: brian.uholik@usdoj.gov

Mark A. Nitczynski
U.S. Department of Justice
Environment & Natural Resources Division/EDS
999 18th Street
South Terrace, Suite 370
Denver, CO 80202
Phone: (303) 844-1498
Fax: (303) 844-1350
Email: mark.nitczynski@usdoj.gov

Upon written notice to the other Parties, any Party may designate successors or contact persons for any matter relating to this Settlement Agreement.

B. Upon fulfillment of DOE's and WRPS's obligations under this Settlement Agreement, those obligations under this Agreement shall terminate. If this

Agreement ceases to be effective, then the Parties' obligations under this Agreement shall terminate.

C. Except as expressly provided herein, nothing in this Settlement Agreement shall be construed to limit or modify the discretion accorded to DOE and WRPS by any laws, including but not limited the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011, *et seq.*, RCRA/HWMA, or any other statutes or regulations, or any principles of administrative law.

D. Nothing in this Agreement shall be construed as a concession or admission regarding the extent of Ecology's RCRA/HWMA jurisdiction or authority, and the Parties reserve all their rights and defenses regarding such jurisdiction or authority.

E. Nothing in this Settlement Agreement shall constitute an admission or evidence of any fact, wrongdoing, misconduct, or liability on the part of DOE or WRPS, their officers or any person affiliated with them.

F. The Parties agree that the provisions, terms and conditions of this Settlement Agreement shall be admissible: (i) in support or defense of Plaintiffs' assertions that this Agreement is no longer effective pursuant to IX.C or IX.D above; (ii) in support or defense of any Party's assertions of a material violation (including, without limitation, the violation of a release or forbearance term) of this Agreement; (iii) in defense of any assertions by Plaintiffs or any parties or entities (by way of commencement or refiling of any action, the joinder of DOE or WRPS

in an existing action, or in any other fashion) of any and all claims, causes of action, suits or demands of any kind in law or in equity alleging an imminent and substantial endangerment related to tank vapors at Hanford; and (iv) in support or defense of assertions regarding tank retrieval milestones or other issues in the Consent Decree Matter. The Parties agree that this Settlement Agreement shall not be admitted to assert or otherwise seek to establish a violation of RCRA/HWMA, of any other statutes or regulations, or of any principles of administrative law, by DOE or WRPS, and shall not be admitted for any other purpose in any other proceeding without the consent of the United States and DOE.

G. Plaintiffs recognize that DOE's and WRPS's performance under this Settlement Agreement is subject to fiscal and procurement laws and regulations of the United States which include, but are not limited to, the Anti-Deficiency Act, 31 U.S.C. § 1341, *et seq.*, and nothing in this Settlement Agreement shall be interpreted as or constitute a commitment or requirement that DOE obligate or pay funds in contravention of the Anti-Deficiency Act. In addition, nothing in this Settlement Agreement shall be interpreted as or constitute a commitment or requirement that DOE take actions in contravention of the Administrative Procedure Act, 5 U.S.C. §§ 551-559, 701-706, the Atomic Energy Act, or any other substantive or procedural law or regulation.

H. The Effective Date of this Settlement Agreement shall be the date upon which the court stays the Litigation in substantial accordance with the terms of the joint motion filed by the Parties in accordance with paragraph IX.A above.

I. If, subsequent to the Effective Date of this Settlement Agreement, any change in the law or legal requirement goes into effect that alters or relieves DOE's or WRPS's obligations concerning matters addressed in this Settlement Agreement, then the Settlement Agreement shall be amended to conform to such changes. Any dispute regarding invocation or the applicability of this provision shall be resolved in accordance with the dispute resolution provisions of Section X above.

J. Except as expressly set forth in this Settlement Agreement, the Parties reserve and do not waive any and all other legal rights and remedies. Defendants expressly reserve, and do not waive or limit, any and all defenses related to the Litigation.

K. This Settlement Agreement shall be governed and construed under the laws of the United States.

L. This Settlement Agreement constitutes the final, complete and exclusive agreement and understanding between Plaintiffs and Defendants with respect to the matters addressed in this Agreement. There are no representations, agreements or

understandings relating to this settlement other than those expressly contained in this Agreement.

M. The Parties may, in a written document signed by all of the Parties, modify any deadline or other term of this Settlement Agreement.

N. The Parties hereby agree that any and all rules of construction to the effect that ambiguity is construed against the drafting party shall be inapplicable in any dispute concerning the terms, meaning, or interpretation of this Settlement Agreement.

O. Each undersigned representative of the Parties certifies that he or she is fully authorized by the Party to enter into this Settlement Agreement and to bind such Party to comply with the terms and conditions of this Agreement.

P. This Settlement Agreement may be executed in any number of counterparts, each of which shall be deemed to constitute an original, and such counterparts shall together constitute one and the same Agreement. The execution of one counterpart by any Party shall have the same force and effect as if that Party had signed all other counterparts.

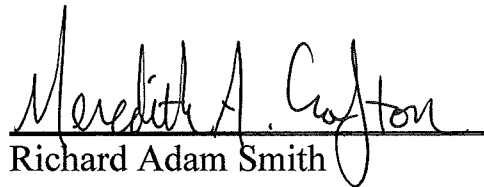
Q. Nothing in this Settlement Agreement shall be construed to make any person or entity not executing this Agreement a third-party beneficiary to this Agreement.

WHEREFORE, after having reviewed the terms and conditions of this Settlement Agreement, Plaintiffs, WRPS, and the United States on behalf of DOE

hereby consent and agree to the terms and conditions of this Settlement Agreement.

IT IS SO AGREED.

DATE: 09/19/2018



Richard Adam Smith
Meredith Ann Crafton
SMITH & LOWNEY PLLC
2317 East John Street
Seattle, Washington 98112
Telephone: (206) 860-2883
Facsimile: (206) 860- 4187
Email: richard@smithandlowney.com
Email: meredith@smithandlowney.com

Beth E. Terrell
Blythe H. Chandler
TERRELL MARSHALL LAW GROUP
936 North 34th Street, Suite 300
Seattle, Washington 98103
Telephone: (206) 816-6603
Facsimile: (206) 319-5450
Email: bterrell@terrellmarshall.com
Email: bchandler@terrellmarshall.com

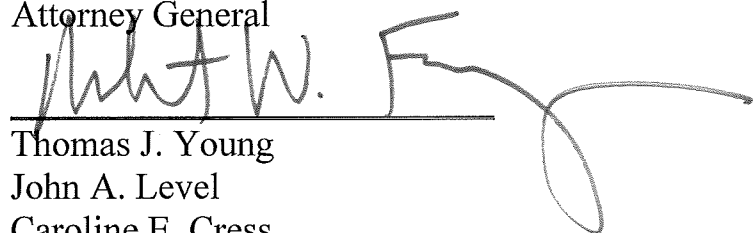
Richard Webster
PUBLIC JUSTICE PC
1620 L Street NW, Suite 630
Washington, DC 20036
Telephone: (202) 797-8600
Facsimile: (202) 232-7203
Email: rwebster@publicjustice.net

ATTORNEYS FOR HANFORD
CHALLENGE/LOCAL 598

DATE:

Sept. 19, 2018

ROBERT W. FERGUSON
Attorney General



Thomas J. Young
John A. Level
Caroline E. Cress
State of Washington
Office of the Attorney General
P.O. Box 40117
Olympia, WA 98504-0117
360-586-6770
tomy@atg.wa.gov
johnl3@atg.wa.gov
carolinec@atg.wa.gov

William R. Sherman
Kelly T. Wood
State of Washington
Office of the Attorney General
TB-14
Seattle, WA 98104
206-326-5494
bills5@atg.wa.gov
kellyw1@atg.wa.gov

ATTORNEYS FOR STATE OF
WASHINGTON

DATE: _____

Stephen B. Cherry
Deputy General Counsel
Washington River Protection Solutions,
LLC
P.O. Box 850, MSIN H3-23
Richland, WA 99352

ROBERT W. FERGUSON
Attorney General

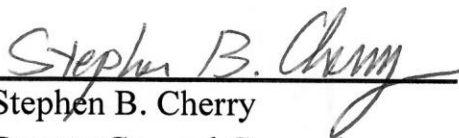
DATE: _____

Thomas J. Young
John A. Level
Caroline E. Cress
State of Washington
Office of the Attorney General
P.O. Box 40117
Olympia, WA 98504-0117
360-586-6770
tomy@atg.wa.gov
johnl3@atg.wa.gov
carolinec@atg.wa.gov

William R. Sherman
Kelly T. Wood
State of Washington
Office of the Attorney General
TB-14
Seattle, WA 98104
206-326-5494
bills5@atg.wa.gov
kellyw1@atg.wa.gov

ATTORNEYS FOR STATE OF
WASHINGTON

DATE: September 19, 2018



Stephen B. Cherry
Deputy General Counsel
Washington River Protection Solutions,
LLC
P.O. Box 850, MSIN H3-23
Richland, WA 99352

Telephone: (509) 376-6492
stephen_b_cherry@rl.gov

J. Chad Mitchell
Summit Law Group PLLC
1030 N. Center Parkway, Suite 308
Kennewick, WA 99336
509-735-5053

ATTORNEYS FOR WASHINGTON
RIVER PROTECTION SOLUTIONS, LLC

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment and Natural Res. Division

DATE: September 19, 2018



AUSTIN D. SAYLOR
Sheila Baynes
Brian S. Uholik
U.S. Department of Justice
Environment & Nat. Res. Division
Environmental Defense Section
P.O. Box 7611
Washington, D.C. 20004
202-514-1880 (Saylor)
202-514-2617 (Baynes)
202-305-0733 (Uholik)
austin.saylor@usdoj.gov
sheila.baynes@usdoj.gov
brian.uholik@usdoj.gov

Mark A. Nitczynski
U.S. Department of Justice
Environment & Nat. Res. Division
Environmental Defense Section
999 18th Street, S. Terrace, Suite 370

Denver, CO 80202
303-844-1498
mark.nitczynski@usdoj.gov

Vanessa R. Waldref
U.S. ATTORNEY'S OFFICE
P.O. Box 1494
Spokane, WA 99210-1494
509-353-2767
vanessa.r.waldref@usdoj.gov

ATTORNEYS FOR THE UNITED
STATES

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement between Washington River Protection Solutions, (WRPS) and the Hanford Atomic Metal Trades Council (HAMTC) documents the agreement that HAMTC will lift its current stop work, which requires that all work inside the perimeter fences of any tank farm is performed while wearing mandatory supplied air, based on Washington River Protection Solutions agreement to remain on supplied air within the tank farms perimeter until such time as the following two conditions are met:


1. Cartridge testing is completed and documented results have been satisfactorily demonstrated to provide worker protection from tank vapor emissions. (anticipated to be complete by October 2016), and
2. A 3rd party qualified independent entity, selected by HAMTC, reviews the testing methodology/protocols and results of the cartridge testing data and concurs with the results. (anticipated to complete 30 days after item 1 above)

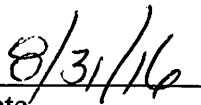
After the above two items are completed, both parties agree to the use of interim mandatory respiratory protections consistent with testing results until emergence of additional engineered controls or other approaches are implemented and proven to be effective. This shall be conducted on a Farm by Farm basis.

This agreement is subject to all applicable Federal and State laws and any rules, regulations and judgements issued pursuant thereto.

AGREED AND ACCEPTED BY:


WASHINGTON RIVER PROTECTION SOLUTIONS:

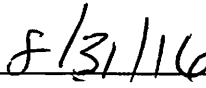


Mark A. Lindholm,
President & Project Manager

Date

HANFORD ATOMIC METAL TRADES COUNCIL:



David E. Molnaa,
President

Date