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UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WASHINGTON

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

ERNEST MONIZ, Secretary of the United States Department of Energy, and the UNITED STATES DEPARTMENT OF ENERGY,

Defendants.

NO. 08-5085-RMP

UNITED STATES' RESPONSE TO THE STATE OF WASHINGTON'S PETITION TO MODIFY CONSENT DECREE

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INTRODUCTION

The State's proposed modification to the Consent Decree (ECF Nos. 75-1 to 75-3) would establish requirements that are unachievable, beyond the scope of the parties' original agreement, and in conflict with DOE's exclusive regulatory authority under the Atomic Energy Act. The Court should, therefore, deny the State's Petition to Amend the Consent Decree (ECF No. 75).

The State agrees with DOE that the Consent Decree must be modified due to factual circumstances that have changed since the Decree was entered. Accordingly, the Court must ensure that any modification to the Consent Decree is "tailored to resolve the problems created by the change in circumstances" and "do[es] no more[.]" *Rufo v. Inmates of Suffolk Cnty. Jail*, 502 U.S. 367, 391 (1992). The key change in circumstances here was the emergence of significant technical obstacles affecting the Pretreatment and High-Level Waste Facilities that prevent DOE from meeting Consent Decree milestones for construction and operation of Hanford's Waste Treatment and Immobilization Plant ("WTP"). That change in circumstances has resulted not only in a delay in WTP construction, but also in significant uncertainty in the project schedule until DOE can resolve the technical issues, establish a new performance baseline (which provides necessary schedule and cost information) for the project, and sign new or modified construction contracts.

DOE's proposed Consent Decree modification confronts these problems head-on and is well-tailored to resolve them. *See* U.S. Mot. to Modify Consent Decree ("U.S. Br.") (ECF No. 76) at 50-64. While retaining the original objectives of the Consent Decree—reaching initial operations for the WTP and completing the retrieval of waste from 19 tanks—DOE's proposal addresses the construction delays at the Pretreatment and High-Level Waste Facilities by

adopting a new, phased approach to waste treatment. That approach, known as "Direct Feed LAW," will allow DOE to feed waste directly to the Low-Activity Waste Facility for vitrification, bypassing the Pretreatment Facility. Meanwhile, under DOE's proposal, DOE would continue technical issue resolution efforts, and establish construction and operation milestones for the Pretreatment and High-Level Waste Facilities as soon as meaningful and achievable milestones can be established, i.e., once technical issues have been resolved and a new performance baseline reflecting that resolution is developed. Retrieval of waste from the 19 tanks governed by the Consent Decree will proceed on schedule, with all 19 tanks to be completed by 2022, subject only to minor modifications designed to increase efficiency. DOE's proposal is practicable and reflects DOE's expertise and exclusive Atomic Energy Act authority over the safe handling of radioactive materials and the construction of nuclear facilities.

In stark contrast, the State's proposed modification falls well short of the *Rufo* standard. The State's proposal would radically alter the parties' original agreement by expanding its scope to incorporate new requirements that were deliberately omitted from the original agreement, including obligations to build new double-shell tanks and adopt waste treatment technologies that DOE has not determined are necessary or appropriate. Moreover, the State's proposed requirements are not tailored to solve, and in some cases can only worsen, the problems caused by the technical obstacles affecting the WTP. Thus, the State's proposal both fails *Rufo*'s "tailoring" requirement and ignores its admonition that a consent decree modification should "do no more" than resolve the problems caused by changed circumstances. *See infra* Part II.

Moreover, the State's proposal simply will not work. Many of its milestones for WTP construction are unattainable and arbitrary either because

they ignore the significant uncertainty facing the project due to the need to resolve technical issues that present nuclear safety concerns, or because they fail to allot sufficient time for designing and building nuclear facilities. Other milestones are artificially accelerated and will divert resources and focus from necessary work. Because DOE must ensure that the WTP meets all nuclear safety requirements, the State's schedule sets the project up for failure and virtually assures the need for future Consent Decree modifications that could be avoided under DOE's proposal. The State's proposal would also require a dramatic and unrealistic increase in funding that, if mandated, would jeopardize DOE's ability to carry out ongoing nuclear cleanup operations on other parts of the Hanford Site and at other sites across the country. What is more, the State's proposal would not materially reduce risk to groundwater or the Columbia River from Hanford's tank waste. *See infra* Part II.

Finally, central elements of the State's proposal are barred by the Constitution and federal law. Adoption of the State's proposal would violate the Supremacy Clause and sovereign immunity because it would position the State as the arbiter of DOE's decisions concerning nuclear materials, nuclear facility construction, and related hazards at a federal installation—an area of regulation where Congress has not waived immunity and, in fact, has specified that federal officials retain exclusive regulatory authority pursuant to the Atomic Energy Act. *See infra* Part III. Moreover, the State's proposal would shift control over the construction and operation of a federal nuclear facility from the hands of the federal authorities that Congress entrusted to do the job, and place that control in the hands of the State, which has no regulatory authority over—and inadequate expertise and resources to manage—the nuclear materials and related hazards that are the very reason that the WTP project exists in the first place.

The critical changed circumstance in this case, and the one that must drive any modification to the Consent Decree, is the emergence of daunting technical issues that have undermined DOE's ability to meet Consent Decree milestones. Those issues must be resolved to avoid substantial nuclear safety and operational hazards. Although the State does not dispute that the technical issues exist and must be resolved before full construction can resume, the State's proposal does not address the technical issues in earnest. Instead, the State appears to construe the changed circumstances as a license to re-negotiate the original agreement, expand its scope, and usurp DOE's authority under the Atomic Energy Act. As a result, the State's proposal puts safety at risk, fails to meet *Rufo*'s tailoring requirements, and must be rejected.

For these reasons, and as detailed below, the United States respectfully requests that the Court deny the State's petition, grant the United States' Motion (ECF No. 76), and enter the United States' proposed order (ECF No. 76-1) modifying the Consent Decree.

ARGUMENT

I. The State's Petition Misrepresents or Ignores Key Facts and Considerations.

Central to the State's Petition are a series of assertions that misrepresent the circumstances, ignore key facts or considerations, or are otherwise exaggerated or mistaken. Although we respond to a variety of these contentions elsewhere in this brief, the following key points merit correction at the outset, before we describe why the State's proposed modification to the Consent Decree is unworkable and legally unsound.

A. The State Obscures the Central Role of the WTP Technical Issues and the Importance of Resolving Them.

The State's Petition fails to account for the central role that the unresolved technical issues have played, and continue to play, in this case. Although the State acknowledges that the technical issues are "[p]erhaps most significant to the WTP schedule," State of Washington's Petition to Amend Consent Decree ("Wash Br.") (ECF No. 75) at 32, the State simultaneously derides DOE as "blaming technical issues" for delays in the project, *id.* at 22, and focuses instead on alleged shortcomings in project management and contractor oversight as major contributors to WTP delays, *id.* at 33-36. Indeed, the State barely mentions technical issue resolution as a factor for the Court to consider in determining what modification of the Consent Decree is warranted. *See id.* at 50-51.

Nevertheless, the emergence and persistence of the WTP technical obstacles is the critical change in circumstances that requires a modification to the Consent Decree. The technical obstacles and their associated nuclear safety concerns are what prompted DOE to suspend important construction activities, and the persistence of those technical obstacles—in spite of DOE's concerted effort to resolve them—must be the central consideration in formulating a new schedule. Until the technical issues can be resolved and a new performance baseline for the project (i.e., a detailed project schedule and cost) can be established, the uncertainty makes it impossible to set meaningful and achievable milestones for completing and starting up the WTP.

The State's failure to recognize these facts taints nearly every aspect of its proposed Consent Decree modification. Looking backwards, the State suggests that DOE was not reasonably diligent in its efforts to resolve technical issues.

However, that assessment, made only in hindsight, ignores both the reasonableness of DOE's approach[1] and the fact that the State was aware of DOE's plans to resolve the issues at the time the Consent Decree was entered and raised no objections. *See* U.S. Br. at 47; Declaration of Delmar Noyes ("Noyes Decl.") ¶¶ 14-15 (attached as Ex. B). Looking forward, and as discussed below, *see infra* Part II.A.2, the State's treatment of technical issue resolution in its proposal is a blueprint for failure. The State's proposal would establish hard milestones for resolving technical issues despite the fact that the issue resolution process is inherently iterative and evolving and, therefore, cannot predictably be completed by a specific date and still ensure safety requirements are satisfied.[2] *See* Declaration of Robert A. Gilbert ("Gilbert

[1] The State misleadingly suggests that DOE's approach to technical issue resolution has been unreasonable and contrary to the advice of outside experts. Wash. Br. at 16-17, 32-33. The State asserts that, after years of testing and despite being "repeatedly informed" by outside experts, DOE "finally realized that it had to go back to square one and do full-scale [vessel] testing[.]" *Id.* at 32-33. Although it is unclear what the State means by "square one," full-scale testing of the current vessel design was never considered to be the appropriate first step in developing the technology—indeed, in engineering of this type, full-scale testing is typically not the first step. Supplemental Declaration of Robert A. Gilbert ("Gilbert Supp. Decl.") ¶ 6 (attached as Ex. A). Because full-scale vessel testing is the most time- and resource-consuming type of testing, DOE reasonably considered less-consumptive methodologies first to reduce delay and total cost. *Id.* ¶ 7. DOE has implemented a scientifically-sound, iterative approach to verifying whether the mixing vessel design will meet operational and safety standards: evaluating physical characteristics, scaled testing and modeling, and plans for large-scale tests. *Id.* ¶¶ 5-8, 23. The ultimate decision to conduct full-scale tests resulted from uncertainty associated with scaling and use of models in a complex system with multiple phases and varying operating parameters. *Id.* ¶ 7. DOE's approach has been reasonable, sound, and consistent with the evolving recommendations of the expert community. *See id.* ¶¶ 9-23. The State's contrary suggestion is unfounded.

[2] This uncertainty regarding a completion date for technical issue resolution does not mean the process cannot be subject to monitoring for diligence and progress—for example, through the reporting requirements in DOE's proposed modification. *See* United States' Proposed Order (ECF No. 76-1) ¶ 4(b), (d).

Decl.") (ECF No. 76-6) ¶¶ 10-12. Moreover, the State's proposal compounds the problem by pegging dozens of additional construction and operation milestones to the flawed hard milestones for technical issue resolution, and by making no provision for the reality that technical issue resolution may require changes that affect the project cost and schedule. Because the State's proposal ignores these considerations, its milestones are unrealistic, unattainable, and will jeopardize the ultimate success of the WTP project.

B. The Tri-Party Agreement and the Consent Decree Are Separate Agreements by Design.

The State's proposal improperly conflates the Consent Decree and the Tri-Party Agreement[3] by asserting that the Court should modify the *Consent Decree* to ensure that *Tri-Party Agreement* milestones are met. *E.g.*, Wash. Br. at 1. That assertion is misplaced. Although the parties agreed to modify the Tri-Party Agreement at the time the Consent Decree was entered, the two agreements are distinct, and deliberately so. Indeed, as we demonstrated in our opening brief, the division between those two documents is evident from the plain and specific language that the parties included in the Consent Decree. U.S. Br. at 19, 65-67.

This distinction is important. Whereas the Consent Decree is an order of the Court, the Tri-Party Agreement is an administrative order. The two agreements govern different aspects of the cleanup operations at Hanford, *see, e.g.*, HFFACO, App. D, Milestone Series M-016 (remedial milestones for non-tank farm areas), contain different procedures and standards for establishing and amending milestones and other requirements, *see id.* Agreement Action Plan § 12.0 (amendment provisions), and involve different potential sanctions if

[3] The Tri-Party Agreement is also known as the Hanford Federal Facility Agreement and Compliance Order ("HFFACO"). Cited provisions of the Tri-Party Agreement are included in the attached Exhibit G.

milestones or other requirements are not met, *id.* Arts. IX-X (penalties and enforcement). These considerations were essential to DOE while negotiating the Consent Decree, particularly given the timeframe of the overall tank waste treatment mission and the many uncertainties and potential pitfalls associated with the construction of a massive, unique, and highly complex waste treatment facility designed to handle complicated nuclear wastes. With these considerations in mind, DOE in 2010 declined to agree to include more in the Consent Decree than its central requirements—achieving initial operations for the WTP and retrieving waste from 19 tanks—and made clear in the Consent Decree that Tri-Party Agreement requirements were something separate and distinct. *See* U.S. Br. at 65-67. The State's present attempt to obscure this distinction and import elements of the Tri-Party Agreement into the Consent Decree is not only contrary to the clear and specific language of the Consent Decree, but it would also deprive DOE of its benefit of the bargain, as discussed further in Parts II.B-C below.

C. The Driving Factor Behind the WTP Project Is the Presence of Radioactive Materials Regulated Exclusively by DOE.

As we establish below, the State's proposal overreaches, not only by impermissibly expanding the scope of the parties' original agreement, but also by arrogating control to the State over matters that are outside its regulatory authority and area of expertise. The State's brief all but ignores this critical element of the regulatory context at Hanford. Though the State selectively chooses to describe the WTP as being necessary to meet certain federal Resource Conservation and Recovery Act ("RCRA") and Washington

Hazardous Waste Management Act ("HWMA") standards,[4] Wash. Br. at 12, the tank waste would have been treated long ago if it contained only RCRA-regulated hazardous waste. The very reason that the WTP is necessary is because the tank waste also contains radioactive source, special nuclear, or byproduct materials ("AEA materials") that cannot be treated at a standard hazardous waste treatment facility (e.g., a hazardous waste incinerator), but instead must be treated and disposed of in accordance with the Atomic Energy Act ("AEA"). Thus, pursuant to its exclusive AEA regulatory authority, DOE is building at Hanford the largest and arguably most complex nuclear waste treatment facility in the world.

The WTP is a federal nuclear construction project, undertaken at a federal facility with federal funds, and must be designed to meet strict safety standards in an area of regulation that Congress has entrusted to the exclusive control of federal authorities. The WTP will also treat the waste to RCRA standards. But that function is secondary—the reason that the WTP exists and the basis for nearly every aspect of its design and function is the fact that it will handle nuclear materials and must treat and dispose of those materials in a safe and effective manner.

[4] The State incorrectly contends that tank waste at Hanford is being stored in violation of RCRA's "storage prohibition," 42 U.S.C. § 6924(j). Wash. Br. at 10-11. In fact, the Federal Facilities Compliance Act of 1992 exempts DOE from that RCRA provision so long as DOE is in compliance with both a plan submitted under 42 U.S.C. § 6939c(b) and an order requiring compliance with that plan. Pub. L. No. 102-386, § 102(c)(3)(B) (at 42 U.S.C. § 6961 Note). The Tri-Party Agreement and Milestone M-026 satisfy both of these requirements. *See Washington v. Chu*, 558 F.3d 1036, 1038 (9th Cir. 2009). Accordingly, waste stored in Hanford's tanks is exempt from the "storage prohibition."

D. Only DOE Has the Authority and Expertise Required to Manage the WTP Project.

Under the AEA, DOE has exclusive authority over the handling of nuclear materials, the construction and operation of nuclear facilities such as the WTP, and associated radiological hazards. The determination to vest this authority with DOE was based in significant part on Congress' view that federal authorities would bring superior experience and expertise to bear in this area of great scientific complexity. *See Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 250 (1984) (Congress "provided for continued federal control over the more hazardous [nuclear] materials because 'the technical safety considerations are of such complexity that it is not likely that any State would be prepared to deal with them during the foreseeable future.'") (quoting H.R. Rep. No. 86-1125, at 3 (1959)).

Consistent with Congress' vision, DOE brings to the WTP project unparalleled expertise and experience in the safe handling of nuclear materials and the design and construction of nuclear facilities. In addition, DOE has extensive experience in managing large and complex nuclear facilities. To promote the safe and effective management of the WTP project, DOE employs—directly or through its contractors—more than 500 engineers with expertise in areas including nuclear design, construction, and commissioning, whose work is supported by the expertise of DOE's National Laboratories. Moreover, the Office of River Protection, which is dedicated entirely to the tank waste treatment mission, brings to bear substantial expertise and experience in the handling of nuclear materials, project management, and facility operations. Noyes Decl. ¶¶ 31-34.

The State's proposal would insert State regulators into both the direct management of the WTP project and the resolution of highly technical nuclear safety issues, yet the State has identified nothing to suggest that it has the comparable expertise and experience necessary to fulfill that role. *See* Declaration of Suzanne Dahl-Crumpler ("Dahl Decl.") (ECF No. 77) ¶ 5 (of the State staff dedicated to "tank waste treatment/disposal issues," there is "*one* nuclear waste specialist with project management and quality control/quality assurance expertise" (emphasis added)). The State's efforts to encroach upon DOE's construction of nuclear facilities and nuclear safety determinations at the WTP—in addition to being contrary to law—are thus an unjustified overreach that will not advance the project.

Although the State seeks to justify this encroachment by critiquing DOE's project management and contractor oversight, its critiques rely almost entirely upon reports prepared by DOE's *own* auditors and reviewers as a part of DOE's ongoing project management activities. *E.g.*, Wash. Br. at 34-35 (quoting a report prepared by DOE's Office of Health, Safety, and Security), 35-36 (quoting a report prepared by DOE's Office of Inspector General), 36-37 (quoting an internal DOE "Construction Project Review" requested by DOE's Deputy Secretary). That DOE has been internally critical and demanding of the WTP project undermines the State's contention that the project lacks accountability. It also demonstrates that DOE has robust internal review mechanisms and expertise to identify and correct shortcomings, thereby ensuring that the project is managed safely and efficiently. In fact, DOE's internal review mechanisms have resulted in numerous improvements in project execution and contractor oversight. *See* Noyes Decl. ¶¶ 25-29. The State's

proposal thus fails to justify its attempt to intrude into DOE's expert management of the WTP project.

E. DOE Has Complied with the Consent Decree.

The State's claim that there has been "significant noncompliance with terms of the Decree," Wash Br. at 45, is incorrect and ignores the terms of the Consent Decree. The parties fully contemplated that technical issues may arise in the course of building and commissioning this first-of-its-kind, highly complex nuclear treatment facility. Accordingly, the Consent Decree established a detailed process to address that scenario and allow for the modification of milestones that became unachievable. *See* Consent Decree (ECF No. 59) ¶ VII-D-3, App. A ¶ 2. DOE has fully complied with that process. *See* U.S. Br. at 26-28; *infra* Parts I.F & I.G. The State's contrary assertion is unfounded.[5]

F. DOE Did Not Abandon Efforts to Meet Consent Decree Milestones.

The State's contention that DOE "abandoned all efforts to comply with the remaining WTP-related deadlines in the 2010 Consent Decree," Wash Br. at 2, is wrong. When DOE recognized that serious technical obstacles had arisen with respect to the Pretreatment and High-Level Waste Facilities, DOE

[5] The State's claim that DOE has missed two milestones, Wash. Br. at 28 (citing Declaration of Jane Hedges (ECF No. 83 ¶ 41)), is incorrect. DOE met the first milestone cited by the State—substantial completion of the Analytical Laboratory (Milestone A-5)—in December 2012, as required. Noyes Decl. ¶¶ 35-37. As to the second milestone (Milestone B-1), DOE met the milestone for seven of the ten listed tanks and provided the required notice as to the remaining tanks. Declaration of Benton J. Harp ("Harp Decl.") (ECF No. 76-2) ¶¶ 58(b), 60(a). In spite of the unanticipated technical and funding problems that prevented DOE from meeting that milestone for all ten tanks, DOE is on track to complete all 19 tank retrievals required by the Consent Decree by the original September 30, 2022 milestone (Milestone B-4). *See* Corrected Declaration of Thomas Fletcher ("Fletcher Decl.") (ECF No. 94) ¶¶ 44-45.

suspended construction activities in those facilities in August 2012 and focused its efforts on resolving the technical issues. *See* U.S. Br. at 21-25. In the interest of vitrifying waste as soon as practicable in spite of those construction delays, DOE investigated an alternative, phased approach to the project that would allow waste to be fed directly to the Low-Activity Waste Facility, bypassing the Pretreatment Facility. Supplemental Declaration of Benton J. Harp ("Harp Supp. Decl.") ¶¶ 10-15 (attached as Ex. C). That approach, known as "Direct Feed LAW," is now a key element of DOE's proposal and, not coincidentally, the State's proposal as well.

DOE's actions were reasonable and consistent with the Consent Decree. Far from "abandon[ing]" the Consent Decree milestones or "defin[ing] a new approach" "without being accountable to the schedule in place," Wash Br. at 2-3, DOE's efforts to investigate Direct Feed LAW are an example of the very "reasonable diligence" that the State criticizes DOE for failing to exercise, Wash. Br. at 24. Faced with technical problems that threatened to delay vitrification, DOE investigated feeding waste directly to the Low-Activity Waste Facility and bypassing the Pretreatment Facility. The Direct Feed LAW approach, however, would require significant time to plan because it entailed a new capital project (the Low-Activity Waste Pretreatment System) and additional design work on other WTP facilities. By taking the preliminary steps to assess this new approach, DOE did not, as the State suggests, Wash. Br. at 41, make any commitments that could not be reversed. Harp Supp. Decl. ¶ 27. Instead, DOE minimized delay by initiating planning and design for Direct Feed LAW—an approach that the State now endorses and that will allow vitrification to begin as soon as practicable without awaiting completion of the rest of the

WTP. Furthermore, as discussed below, DOE kept the State apprised of these efforts. DOE's actions were fully consistent with the Consent Decree.

G. DOE Has Consistently Engaged the State.

There is no basis for the State's assertion that DOE has developed a new WTP approach "with almost no consultation with the State[.]" Wash. Br. at 3. In fact, DOE has engaged the State consistently both with respect to the technical obstacles affecting the project, and with respect to the Direct Feed LAW approach. DOE discussed the Direct Feed LAW concept with the State as early as 2008. Harp Supp. Decl. ¶ 3. DOE and the State held regular meetings at that time where the Direct Feed LAW concept was considered. *Id.* In early 2011, before providing notice that Consent Decree milestones were at risk, DOE began considering plans to implement Direct Feed LAW due to its operational advantages. *Id.* ¶ 5.

When DOE first recognized that Consent Decree milestones were at risk in November 2011, DOE notified the State, as required by the Consent Decree.[6] Harp Decl. ¶¶ 57-58. During numerous WTP project monthly and quarterly meetings in 2012 and 2013, DOE and the State discussed the technical obstacles that had arisen and the possibility of pursuing Direct Feed LAW in light of those

[6] The State contends that the United States' assertion that Federal Rule of Evidence 408 applied to discussions about DOE's risk notification was unjustified and led to delays. Wash Br. at 39. Both contentions are incorrect. Because any meaningful discussion of the risk notification would inevitably involve adjusting milestones, the United States justifiably viewed those discussions as involving potential overtures to compromise within the scope of Rule 408. *See* 23 Fed. Prac. & Proc. Evid. § 5303 (1st ed.). And, the United States' view did not cause delay. Indeed, the State initially agreed that aspects of the parties' planned discussions would be covered by Rule 408. Declaration of Andrew Fitz ("Fitz Decl."), Ex. 4 (ECF No. 82-4). Shortly thereafter, however, the State abruptly changed its position, *id.*, Ex. 2 (ECF No. 82-5), which necessitated additional discussions before another meeting could be scheduled.

obstacles.[7] Harp Supp. Decl. ¶ 9. For example, in an April 2012 meeting, State representatives asked if "interim pretreatment [to support Direct Feed LAW] is becoming more important as a result of the understanding about emerging delays with WTP and tank farms." *Id.* ¶ 10. At a June 2012 meeting, State representatives "asked if the modifications to LAW for direct feed are proceeding," to which DOE responded that "direct feed modifications are still [undergoing re-planning] and are actively being pursued." *Id.* ¶ 13. There were similar discussions of Direct Feed LAW at nearly every WTP project monthly meeting from April 2012 through 2013. *See id.* ¶¶ 10-20, 23-24.

Starting in the fall of 2012 and continuing through May 2013, DOE formed the "S-1" Team of experts to examine the technical issues affecting the WTP project. Gilbert Decl. ¶¶ 117-19. DOE invited the State to participate in that effort, including a series of 25 "webinars," *id.*, and State regulators participated in the panel's discussions, *see* Dahl Decl. ¶ 9.

In September 2013, DOE provided the State with *The Hanford Tank Waste Retrieval, Treatment and Disposition Framework*, which, among other things, discussed more formally the option of incorporating Direct Feed LAW as an element of the WTP project. Declaration of Todd Shrader ("Shrader Decl.") (ECF No. 76-5) ¶ 6. Officials from DOE and the State met and discussed the *Framework* document, including Direct Feed LAW, three times between

[7] The State takes issue with the fact that DOE declined the State's 2012 request that DOE "direct Bechtel to prepare an alternative [performance] baseline that did not assume funding limitations and was designed to meet, or come as close as possible to meeting, all Consent Decree requirements." Wash Br. at 23. The type of hypothetical assessment requested by the State, however, would not have provided useful information because it would have provided no parameters for the contractor to make estimates. In addition, it would have required significant time to complete and diverted significant resources from the project with little benefit. *See* Fitz Decl., Ex. 8 (ECF No. 82-8) at 2.

September and December of 2013. *Id.* ¶ 7. The parties continued to exchange information between December 2013 and March 2014. Harp Supp. Decl. ¶¶ 23-25. On March 31, 2014, DOE provided the State with a proposed amendment to the Consent Decree that incorporated the Direct Feed LAW concept. The State delivered its proposed amendment to DOE later that day.[8] The State's proposal also included the Direct Feed LAW approach.

Thus, contrary to the State's claims, DOE has consulted in detail with the State and kept its officials well-informed throughout the process.[9] The inclusion of Direct Feed LAW in Washington State's own proposal reflects both DOE's extensive outreach on that topic and the State's recognition that Direct Feed LAW approach is an appropriate solution.

II. The State's Proposal Is Not Suitably Tailored to Resolve the Problems Caused by the Unresolved Technical Issues.

The State and DOE agree that factual conditions have changed since the Consent Decree was entered, and that those changes require a modification to the Decree. The question before the Court, therefore, is whether DOE's or the State's proposed modification is "suitably tailored . . . to resolve the problems created by the change in circumstances" and "do no more[.]" *Rufo*, 502 U.S. at

[8] The State's assertion that DOE failed to develop a proposed amendment to the Consent Decree, and so the State "finally had to initiate its own amendment proposal," Wash. Br. at 54-55, is unfounded. State officials were well aware at that time that DOE was planning to deliver its proposal to the State. Harp Supp. Decl. ¶ 26.

[9] Contrary to the State of Oregon's claim that DOE has "shirked its existing obligations to provide timely information," Oregon Mot. to Modify Consent Decree (ECF No. 99) at 4, DOE has in fact met all of the notice and reporting requirements set forth in the Oregon consent decree. DOE notified Oregon of significant risks to milestones, held a video-conference with Oregon officials in July 2012 to discuss DOE's first risk notice, provided Oregon with a copy of the *Framework* document, and participated with Oregon in the three-year review required by the Consent Decree. *See id.* at 9-12.

391. In addition, any proposed modification to a Consent Decree must "tak[e] into account what is realistically achievable by the parties," *Keith v. Volpe*, 784 F.2d 1457, 1460 (9th Cir. 1986), and must be consistent with existing law, *United States v. Oregon*, 913 F.2d 576, 580 (9th Cir. 1990).

As established in our opening brief, DOE's proposal sets forth a reasonable and practicable plan that is well-tailored to resolve the problems facing the WTP project while both advancing the original objectives of the Consent Decree and respecting the scope of the original bargain. U.S. Br. at 50-64. The technical determinations and project management judgments that underpin DOE's proposal reflect the Department's substantial expertise and experience with nuclear facility construction and operation and, thus, are entitled to significant weight. *See infra* Part II.A.

In contrast, the State's proposal falls far short of the standard established in *Rufo*. Rather than accounting for the present status of the project, the State's proposed schedule establishes arbitrary milestones that ignore significant technical and schedule uncertainties while simultaneously expanding the scope of the project and ballooning the number of milestones, virtually ensuring that DOE, the State, and the Court will be involved in continuous rounds of Consent Decree amendment proceedings in the years to come. *See id.*

Significantly, the State's proposal ignores *Rufo*'s caution that a modification must be tailored to resolve problems caused by changed circumstances and "do no more." Indeed, the State's proposal—in the guise of "mitigation"—would dramatically and impermissibly expand the scope of the parties' original agreement by requiring DOE to build up to 12 million gallons of new double-shell tank capacity at a projected cost that could exceed $1 billion, *see* Supplemental Declaration of Thomas Fletcher ("Fletcher Supp.

Decl.") ¶¶ 29, 35 (attached as Ex. D), thereby imposing substantial obligations on DOE that it never would have agreed to in the first place. Such a result would both deprive DOE of the benefit of its bargain and overrule DOE's determination under the AEA that new double-shell tanks are not necessary and that DOE will accomplish the tank waste treatment mission using Hanford's existing tank inventory. *See infra* Part II.B. Moreover, without so much as an explanation, the State's proposal would further expand the scope of the Decree by requiring DOE to adopt nuclear waste treatment technologies—an additional vitrification facility and an additional process to directly feed waste into the High-Level Waste Facility—that DOE has not determined to be appropriate or necessary. These new requirements are not tailored to resolve current problems, yet they would impose substantial burdens on DOE and eliminate DOE's discretion to determine the best manner in which to handle nuclear materials pursuant to its AEA authority. *See infra* Part II.C. The State's proposed "accountability" measures also fail the *Rufo* "tailoring" standard because they are unworkable and will not resolve the problems facing the WTP project. *See infra* Part II.D.

Finally, the State's proposal is contrary to the public interest. Even if the State's proposed milestones could be met, the State's plan would substantially increase the cost of the project, with the foreseeable result that DOE would either miss Consent Decree milestones or attempt to divert more funds from other important nuclear cleanup operations at Hanford and across the country, thereby putting those cleanups at risk. These excessive costs and other problems, moreover, are unjustified because the State's proposal will not significantly reduce risk to groundwater as the State suggests. *See infra* Part II.E.

A. The State's Proposed Schedule Is Unachievable, Unrealistic, and Fails to Account for the Significant Uncertainties Facing the WTP Project.

The State makes three critical errors that render its proposed schedule unachievable. First, the State incorrectly assumes that technical issues can be resolved by a date certain. Second, the State proposes to establish milestones for facility construction and operation before key technical issues are resolved and a performance baseline can be put in place. Third, the State's schedule fails to allow sufficient time and flexibility for the construction of complex nuclear facilities.

These errors in the State's plan point to an important factor that the Court should consider in weighing the parties' proposals. As described in Part I.D. *supra*, DOE's operations at Hanford implement Congress' determination, as set forth in the AEA, that federal officials should have exclusive authority over the management of nuclear materials and the operation and construction of nuclear facilities, *see Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 207, 212 (1983), based in large part on Congress' view that federal authorities could bring superior experience and expertise to bear in this area of great scientific complexity, *see Silkwood*, 464 U.S. at 250. Accordingly, DOE's expert views on the timing and requirements for nuclear facility construction and related nuclear safety issues at Hanford are entitled to significant weight. *See, e.g., Natural Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1389 (D.C. Cir. 1985) ("DOE's analysis of a technical engineering study is entitled to great deference from judges, who are hardly equipped to match the expertise of DOE's scientists."). Indeed, "a reviewing court must generally be at its most deferential" when an agency makes "predictions, within its area of special expertise, at the frontiers of science," as DOE is doing here.

Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983). The State, on the other hand, is making project-scheduling predictions in areas that are far afield of its expertise. As a result, its proposal fails to give proper account to the process for resolving technical issues, the complexity of the project, and the importance of the nuclear safety issues that are involved. The State's predictions merit no deference.

1. The State's Proposed Schedule Will Not Address the Problems Facing the WTP Project.

The State's proposed schedule would establish 99 highly-detailed planning, construction, and commissioning milestones for the WTP, including milestones that require the establishment of yet more milestones. Wash. Proposed Order ("P.O.") Ex. A (ECF No. 75-2). The State's proposed schedule fails *Rufo*'s tailoring requirement because it does not address the problems facing the project.

Here, the basic flaw in the State's approach is its failure to acknowledge the centrality of the technical issues, their overwhelming contribution to the problems that currently face the WTP, and their continuing effect. Although the State points to a number of alleged causes, it cannot reasonably be disputed that the emergence of significant technical issues—issues that must be resolved for the WTP to operate safely and as intended—is the chief factor that has obstructed DOE's efforts to meet WTP construction milestones. Nor can it reasonably be disputed that the timing for resolving those technical issues is unpredictable, as is to be expected in a project of this magnitude and complexity, and as the history of this project demonstrates. Until those technical issues can be resolved and a new performance baseline and contract (or contract

modification) can be put in place, there is too much uncertainty to establish a meaningful construction schedule for the WTP.

The State's 99 highly detailed milestones are not tailored to address these problems. Indeed, the State never adequately explains how *more* milestones will keep the project on track given that technical issues made the original slate of milestones unachievable and that there is less certainty now than there was in 2010. The State suggests vaguely that additional milestones will "foster accountability and timely identify schedule issues," Wash. Br. at 49, but accountability and timely identification of schedule issues are not problems here—DOE notified the State of potential schedule risks in November 2011, years before the earliest milestones would come due. Thus, the State's solution is not tailored to the actual problems at hand.

2. The State's Proposal Would Establish Arbitrary and Unworkable Milestones for Technical Issue Resolution.

The State's proposed schedule would require DOE to resolve all technical issues affecting the High-Level Waste Facility by September 30, 2016, and those affecting the Pretreatment Facility by September 30, 2018. Wash. P.O. Ex. A, Milestones A-60, A-85. As discussed below, those milestones are both unreasonable and arbitrary. In addition, because the State's proposal pegs all the subsequent milestones for the construction and commissioning of those facilities and the WTP as a whole to the technical resolution milestones, this fundamental flaw affects the bulk of the State's proposed schedule.

The State's proposed hard milestones for technical issue resolution are unsound. Although DOE is endeavoring to resolve the outstanding technical issues, history demonstrates that the challenging technical issues presented by this first-of-its kind facility cannot predictably be resolved by a set date. The

technical issues at hand are highly complex with a path to resolution that is inherently iterative and evolving: as DOE obtains additional information by completing a round of testing, problems may be resolved or another round of testing may be necessary. In addition, resolving a technical issue may require that DOE redesign a facility or adopt a new process or methodology—alterations that require additional time for further analysis and testing. Supplemental Declaration of Todd Shrader ("Shrader Supp. Decl.") ¶¶ 2-4 (attached as Ex. E). For example, one possible solution to the waste mixing issues is a change in vessel design. However, once a vessel design is changed and tested, further analysis, and possibly additional rounds of testing, will be required to ensure that the new design works as intended in concert with other components of the facility where it will be installed. If it does not, then a new vessel design must be developed, tested, and analyzed. *Id.* ¶ 5. The State's proposed hard milestones for technical issue resolution are ill-advised and must be rejected.

Furthermore, the milestones the State proposes for technical resolution are arbitrary. Indeed, the State provides no rationale whatsoever for those milestones. With respect to the High-Level Waste Facility, the State's declarant, while noting that a design and operability review of the facility showed that all 12 of the operating systems under examination "have moderate or significant technical issues that, if not addressed, will compromise the functional ability" of the facility, asserts without attribution that resolution of all the issues identified in that review "is expected to take 2 years[.]" Dahl Decl. ¶ 127.3; *see* Wash. P.O. Ex. A, Milestone A-60. The State provides no basis for that expectation, and, based on the available information, DOE disagrees. DOE does not anticipate that it will resolve the hundreds of technical issues identified in the

design and operability review within two years. Apart from the significant technical issues cited above, there are numerous, more routine technical issues that DOE cannot resolve until the appropriate time. *See* Shrader Supp. Decl. ¶ 7. Moreover, even if the State's deadline were limited to just the five key technical issues addressed by DOE's proposal, DOE cannot say with the necessary confidence that it will resolve all those issues within two years, though DOE expects to have identified a path to resolution by that time. *Id.*

Similarly, for the Pretreatment Facility, the State's schedule assumes three years to resolve all technical issues. Dahl Decl. ¶¶ 138.1-138.2; Wash. P.O. Ex. A, Milestone A-85. Again, however, the State provides no basis for this assumption. In fact, it is impossible at this time to predict that technical issues can be resolved within three years. In contrast to the High-Level Waste Facility, DOE has not yet performed (nor yet scheduled) the design and operability review of the Pretreatment Facility designed to identify remaining issues. Shrader Supp. Decl. ¶ 8. Moreover, DOE anticipates that the program for testing Pretreatment Facility vessels alone will take at least three years to complete, with the potential that additional testing will be necessary. *Id.* The State's arbitrary milestones fail to account for these uncertainties.

The technical issue resolution process and associated facility redesign is the essential initial step to ensuring that the WTP can operate safely and effectively for the intended life of the mission. The technical obstacles currently facing the project present serious nuclear safety concerns. If not resolved properly, they could lead to nuclear safety risks during operations, including potential explosions due to hydrogen build-up in vessels that are mixing radioactive wastes, a release of nuclear materials due to erosion in piping and vessels, and potential worker exposure to airborne radionuclides due to improper

facility ventilation. Shrader Decl. ¶ 10; Gilbert Decl. ¶¶ 39-63. DOE will resolve these issues to ensure radiological safety at the WTP, but it must do so in a deliberate and thorough manner, without the impediment of arbitrary milestones.

The State's emphasis on haste in the area of nuclear safety is perplexing, irresponsible, and unacceptable. DOE cannot, for the sake of meeting arbitrary milestones, compromise operational safety or build a nuclear facility that will not operate in accordance with nuclear safety standards. Shrader Supp. Decl. ¶ 10. The State's failure to allow sufficient time for technical issue resolution, particularly in light of this project's history and the seriousness of the unresolved technical obstacles, is short-sighted, contrary to the public interest, and renders the State's plan unworkable.

3. The State's Proposed Construction and Commissioning Milestones for the Pretreatment and High-Level Waste Facilities, and the WTP As a Whole, Are Mere Guesswork.

The State's proposal compounds the problems set forth above by establishing hard milestones for construction and operation of the Pretreatment and High-Level Waste Facilities (and other facilities) in the absence of a performance baseline and construction contract. *Id.* ¶ 12. A performance baseline and contract are prerequisites to establishing any meaningful construction schedule. The performance baseline, among other things, establishes the project cost and schedule. A new or modified construction contract must also be negotiated and executed before DOE can reasonably predict that the performance baseline can be met.[10] *Id.* ¶¶ 12-13. The State's

[10] At the time the Court entered the Consent Decree in 2010, WTP construction was underway, DOE had established a performance baseline, and a construction

(Footnote continued on next page…)

proposal, however, puts the cart before the horse, establishing hard milestones for facility construction and commissioning without knowing first what the performance baseline requires in terms of the project schedule and cost. The performance baseline, meanwhile, cannot be established with accuracy until technical issues are resolved. As a result, the State's schedule piles arbitrary milestones on top of construction schedule uncertainty and technical issue resolution uncertainty, leading to a schedule that is essentially guesswork. That schedule, therefore, fails to meet *Rufo*'s tailoring requirements and must be rejected.

4. The State's Proposed Schedule for Direct Feed LAW Is Flawed.

The State's proposal for implementation of Direct Feed LAW contains two fundamental flaws. First, the State's schedule would require DOE to hot commission the facilities needed for Direct Feed LAW by July 31, 2022. Wash. P.O. Ex. A, Milestones A-27 & A-44. That deadline is five months sooner than DOE believes hot commissioning can be accomplished while allowing sufficient time for contingencies and the complexity involved in this type of nuclear facility construction. Shrader Supp. Decl. ¶¶ 15-17. DOE's engineering judgment as to the timing of such nuclear facility construction is entitled to deference.

Second, the State's proposal would establish a number of detailed, intermediate construction and commissioning milestones for these facilities in the absence of a performance baseline and construction contract. As with the Pretreatment and High-Level Waste Facility milestones discussed above, the

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contract had been executed. *See* U.S. Br. at 61. In light of the technical obstacles affecting the project, DOE must establish a new performance baseline and execute new or modified construction contracts.

State's proposal would again put the cart before the horse and establish milestones based on guesswork. *See id.* ¶ 18. As a result, the State's proposed milestones are arbitrary and can only lead to future Consent Decree amendments that would be avoided under DOE's proposal.

5. The State's Schedule Would Result in Inefficiency and Divert Resources During Construction of the Low-Activity Waste Facility.

Aspects of the State's proposed schedule would also interfere with DOE's plans to implement Direct Feed LAW. For example, the State's proposal would require DOE to start cold commissioning the Low-Activity Waste Facility nine months prior to cold commissioning the Low-Activity Waste Pretreatment System ("LAWPS"). *See* Wash. P.O. Ex. A, Milestones A-24, A-41. However, it does not make sense from a project management perspective to commission the Low-Activity Waste Facility months before the facility that will feed it. Shrader Supp. Decl. ¶ 19.

In addition, the State's proposal would require DOE to complete the Analytical Laboratory by December 31, 2018, to support Direct Feed LAW and LAWPS operations. Wash. P.O. Ex. A, Milestone A-47. That deadline, however, is unnecessarily early considering that, under the State's schedule, construction of the Low-Activity Waste Facility would not be substantially complete until September 30, 2019, and construction of LAWPS will not be substantially complete until June 30, 2020. Thus, DOE would be required to install instrumentation in the Laboratory that would sit unused for nine months or more, creating the risk of breakage or waste, and requiring DOE to incur additional costs for maintenance. Shrader Supp. Decl. ¶¶ 20-21. In addition, better or less-expensive technology could become available during that time. *Id.*

Additional inefficiencies would result from the State's proposed milestones for the Integrated Disposal Facility, which are set far in advance of the first time the Integrated Disposal Facility will be needed to accept waste, i.e., hot commissioning of the Low-Activity Waste Facility. Wash. P.O. Ex. A, Milestones A-26, A-56 to A-58. The State does not explain why it proposes accelerated milestones for this facility, and, in fact, they are unnecessary and problematic. Shrader Supp. Decl. ¶ 22. As one example, it would make no sense to require DOE to seek the permit modification for "secondary waste,"[11] as set forth in the State's proposed Milestone A-56, by September 30, 2016, because DOE may not have identified by that point all the secondary waste that will be disposed of in the Integrated Disposal Facility. *Id.* Thus, requiring accelerated work on this facility is illogical from a project-management perspective and will divert resources and focus from other necessary work.

These elements of the State's proposal would create preventable inefficiency and waste that would divert resources from other, more pressing matters such as technical issue resolution. Accordingly, these elements of the State's plan are not suitably tailored to resolve existing problems with the WTP project and must be rejected.

B. The State's Proposed "Mitigation" Requiring DOE to Build New Double-Shell Tanks Would Impermissibly Expand the Scope of the Consent Decree and Re-Write the Parties' Original Bargain.

The Court should reject the element of the State's proposal that would require DOE to construct up to 12 million gallons of new double-shell tank capacity. *See* Wash. P.O. Ex. D (ECF No. 75-3). As we establish below, it does

[11] "Secondary waste" refers to waste, other than the vitrified waste, that will be produced during WTP operations. Shrader Supp. Decl. ¶ 22.

nothing to resolve the challenges facing the project due to unresolved technical obstacles, and it would not approximate the parties' positions but for those technical obstacles. It would dramatically expand the Consent Decree, based on alleged effects to Tri-Party Agreement milestones that are outside the scope of the Consent Decree, and would import a remedy (construction of double-shell tanks) that the parties deliberately assigned for resolution in the Tri-Party Agreement. If adopted, the parties' original agreement would be altered, DOE would face substantial new burdens that it never would have accepted as a settlement in the first place, and DOE would thus lose the benefit of its bargain. Accordingly, the State's "mitigation" proposal is not suitably tailored to address the changed circumstances here and must be rejected. *See Vanguards of Cleveland v. City of Cleveland*, 23 F.3d 1013, 1020 (6th Cir. 1994) (a consent decree modification must "preserve[] and further[], rather than alter[], the agreement of the parties in the consent decree.").

Although the State contends that this new requirement is necessary "mitigation" to give the State its "benefit of the bargain" because WTP delays will affect the long-term tank retrieval milestones in the Tri-Party Agreement, Wash. Br. at 42-44, that contention is based upon a glaring misconstruction of the bargain struck by the parties in the 2010 Consent Decree. The parameters of that bargain are evident from the Decree's plain language. *See United States v. Asarco, Inc.*, 430 F.3d 972, 980 (9th Cir. 2005) ("A consent decree, like a contract, must be discerned within its four corners"). First, the parties intended the Decree to cover only a defined and limited scope: the construction and initial operation of the WTP, the retrieval of waste from 19 single-shell tanks, and related reporting. CD ¶ X-A (defining "matters covered" by the Decree). Any of the State's claims that were not resolved by the Consent Decree were

dismissed with prejudice. *Id.* Second, the parties recognized, in light of the size and complexity of the project, that numerous factors, including technical obstacles, could interfere with the Consent Decree milestones and require adjustment of those milestones, and the Decree established procedures to address that scenario. *Id.* ¶ VII-D-3 & App. A ¶ 2. Third, the parties drew a bright line between the Consent Decree and the Tri-Party Agreement, making clear that the two agreements are separate and that nothing in the Decree would give the Court jurisdiction over an action to enforce the Tri-Party Agreement. *Id.* ¶¶ IX-D, XI-A.

The State's "mitigation" proposal flies in the face of these three essential elements of the Consent Decree and, as a result, would turn the parties' original bargain on its head. The addition of double-shell tank construction requirements and tank retrievals beyond 19 tanks would dramatically expand the scope of the original agreement and impose substantial new burdens on DOE by requiring DOE to undertake costly and massive capital construction projects simultaneously with the WTP. Moreover, as we explain in Part III.C below, DOE has concluded that new double-shell tanks would not benefit the tank waste treatment mission. By vastly expanding the Consent Decree to require the construction of unneeded and costly capital facilities that DOE would not have agreed to in the first place, the State's proposed "mitigation" would completely re-write the parties' original deal and deprive DOE of its benefit of the bargain.

This dramatic expansion of the Consent Decree is contrary to well-established limits on the power of courts to modify consent decrees. As the Supreme Court has explained, a consent decree is a compromise where "the parties each give up something they might have won" in litigation. *United States v. Armour & Co.*, 402 U.S. 673, 681 (1971). Because a defendant in a

consent decree waives its right to litigate, "the conditions upon which [it] has given that waiver must be respected . . . ." *Id.* at 682. Modification of a consent decree is not an invitation to reconsider or renegotiate the parties' essential agreement. *See Rufo*, 502 U.S. at 391-92; *Pigford v. Veneman*, 292 F.3d 918, 927 (D.C. Cir. 2002) (a consent decree modification must "preserve the essence of the parties' bargain"). Moreover, because a consent decree is based on the defendant's consent without a finding of liability, courts may not, absent exceptional circumstances, modify the decree to impose burdens on the defendant beyond those required by the decree's original terms. *Fox v. U.S. Dep't of Hous. & Urban Dev.*, 680 F.2d 315, 323 (3d Cir. 1982); *accord Lorain NAACP v. Lorain Bd. of Educ.*, 979 F.2d 1141, 1151-53 (6th Cir. 1992); *Walker v. U.S. Dep't of Hous. & Urban Dev.*, 912 F.2d 819, 827 (5th Cir. 1990); *see also Keith v. Volpe*, 784 F.2d at 1460. Here, there are no exceptional circumstances and the State's "mitigation" demand would impose substantial new burdens on DOE—burdens that DOE would not have accepted in the first place and that DOE believes are not the best way to advance the tank waste retrieval mission at Hanford. Accordingly, the Court should reject this aspect of the State's proposal.

The State's view of its "benefit of the bargain" is flatly inconsistent with the plain terms of the Consent Decree. The State contends that the "benefit of the bargain [it] was promised under the 2010 Consent Decree" included "putting [DOE] on course to complete retrievals of all 149 [single-shell tanks] by no later than 2040[.]" Wash. Br. at 3. Because the State believes requiring DOE to build new double-shell tanks will keep DOE on track for that goal in light of delays in the WTP construction schedule, the State views that "mitigation" as

"maintain[ing] the same level of substantive relief (benefit of the bargain) afforded by the 2010 Decree[.]" *Id.* at 49.

The State's view, however, cannot be squared with the Consent Decree in three important respects. First, the 2010 Consent Decree addresses only the construction and initial operation of the WTP and the retrieval of waste from 19 tanks. It does not address completing the retrieval of 149 tanks or even keeping DOE on course to complete those retrievals—rather, as the State concedes, Wash. Br. at 42-43, the parties decided to assign those issues to the Tri-Party Agreement, which has its own mechanisms for addressing delays in the activities it governs.

Second, the State's view of the bargain is inconsistent with its own explanation of the rationale for how many tank retrievals were included in the Consent Decree. The State notes that the 19 retrievals represented the number of single-shell tanks that, according to DOE's modeling, would fill the remaining double-shell tank capacity before the WTP was projected to come on-line. *Id.* at 18-19. In other words, in the State's own view, the operative factor in determining how many tank retrievals would be covered by the Consent Decree was a limitation in existing double-shell tank space, not the long-term retrieval milestone or any particular pace of retrievals that the State now contends it was promised in the 2010 Decree.[12] Moreover, a necessary corollary to this element of the Consent Decree bargain was that waste in the remaining single-shell tanks would not be governed by the Consent Decree.

[12] In fact, the 19 tank retrievals were chosen not to reflect any particular pace of retrievals, but rather to reflect the retrievals that DOE planned to complete by the time the WTP was to achieve initial operations. Fletcher Supp. Decl. ¶ 26.

Third, as noted, the Consent Decree acknowledges in a clear and detailed fashion that numerous factors, including technical obstacles, could require a modification of the Consent Decree milestones for WTP construction. Thus, the State's "benefit of the bargain" included a critical and explicit proviso: DOE would be obligated to complete the WTP and 19 tank retrievals by 2022, unless a change in factual circumstances required a schedule modification, as it has here. Requiring DOE to undertake the double-shell tank construction proposed by the State is not necessary to ensure that the State obtains the "benefit of the bargain" embodied in the Consent Decree. Quite the opposite: the State's attempt to nullify this element of the bargain by demanding new double-shell tanks as a condition to schedule modification would deprive DOE of the benefit it obtained.

The State attempts to justify its proposed "mitigation" on the grounds that it would approximate the position the parties would have occupied but for the change in circumstances that has necessitated modification of the Consent Decree. Wash. Br. at 49. That justification, however, is illusory. Were it not for the technical obstacles that have delayed work on the project, the WTP would be well on its way to commissioning and DOE would be retrieving waste from the 19 tanks required by the Consent Decree—with no Consent Decree requirements beyond 2022 and no requirement to build double-shell tanks. Thus, the State's proposal would put DOE in a far worse position than it would have occupied absent the change in circumstances. It follows that the "mitigation" aspect of the State's proposal is not "suitably tailored" to the circumstances here. *See Pigford*, 292 F.3d at 927 ("[A] 'suitably tailored' order would return *both* parties as nearly as possible to where they would have been absent [the changed circumstance giving rise to the modification request].").

Finally, the State's "mitigation" approach ignores the bright line that the parties deliberately drew between the Consent Decree and the Tri-Party Agreement in two significant respects. *See supra* Part I.B. First, as the State concedes, in 2010 the parties agreed to "commit new dates for all remaining tank waste mission tasks—which include retrieving waste from all remaining [single-shell tanks] and completing the treatment of all tank waste—to the [Tri-Party Agreement]." Wash. Br. at 42. Yet, the State now asks the Court to modify the Consent Decree to mitigate for delays, not to Consent Decree milestones, but rather to Tri-Party Agreement milestones that are explicitly outside the scope of the Consent Decree and beyond the Court's jurisdiction. *See* CD ¶ XI-A. Second, as the State points out, the parties also agreed to a "System Plan" process in the Tri-Party Agreement that, *inter alia*, provides for the consideration and potential adoption of new double-shell tank construction requirements "as a response to potential further WTP delays[.]" Wash. Br. at 20. And the Tri-Party Agreement includes mechanisms for making any necessary modifications and resolving any disputes that may arise between the parties. *See* HFFACO, Arts. VIII, XXX; Agreement Action Plan § 12.0. Nevertheless, the State now asks the Court to modify the Consent Decree despite the parties' explicit agreement in 2010 that any such "mitigation" (i.e., requirements for new double-shell tanks) due to WTP delays would be handled exclusively within the bounds of the Tri-Party Agreement.[13]

[13] The State's argument also fails to account for the RCRA permitting program applicable to Hanford facilities that handle mixed waste, including tank closure requirements. *See* WAC 173-303-610, 173-303-640(8). The State's attempt to expand the scope of the Consent Decree to include new requirements, such as new double-shell tanks, would circumvent the RCRA permit process and the subject matter addressed by that process.

For all these reasons, the State's "mitigation" proposal fails to meet the requirements in *Rufo* and must therefore be rejected.

C. The State's Proposal Would Impermissibly Expand the Scope of the Consent Decree by Requiring DOE to Build a Second Low-Activity Waste Treatment Facility and Adopt a "Direct Feed High-Level Waste" Capability.

The State has articulated no basis for expanding the Consent Decree to include two new and substantial waste treatment processes that DOE has not determined are necessary or appropriate as part of the WTP project: (a) the design, construction, and initial operation of a "Supplemental Vitrification Treatment System for [Low-Activity Waste]"—in other words, a second Low-Activity Waste Facility, Wash. P.O. Ex. A, Milestones A-93 to A-99; and (b) a revision of the current WTP design to allow waste to be fed directly to the High-Level Waste Facility, bypassing the Pretreatment Facility—in other words, a "Direct Feed High-Level Waste" or "Direct Feed HLW" approach, *id.*, Milestones A-70, A-78.

These unexplained expansions of the Consent Decree would contravene the tailoring requirements in *Rufo* and must be rejected. The "Supplemental Vitrification" requirement, like the State's "mitigation" proposal, would expand the scope of the parties' agreement while ignoring the Consent Decree's bright line separating the Decree from the Tri-Party Agreement. Nothing in the Consent Decree requires DOE to build a second Low-Activity Waste Facility.[14] To the contrary, the parties decided to assign that issue to the Tri-Party Agreement, which contains a milestone that addresses DOE's selection of a

[14] The State's declarants seem to be confused on this point. *See* Dahl Decl. ¶ 140.6 ("2010 Consent Decree had supplemental vitrification starting 1 year after initial WTP operations").

supplemental treatment method (not necessarily vitrification). HFFACO, App. D, M-062-45 (item 3). DOE has not yet determined what supplemental treatment method is appropriate. *See Record of Decision, Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington*, 78 Fed. Reg. 75,913, 75,918 (Dec. 13, 2013) ("DOE does not have a preferred alternative regarding supplemental treatment for LAW"). The State's proposal would fundamentally alter this aspect of the parties' original bargain, both by removing DOE's discretion under the AEA to consider treatment methods other than vitrification, *see infra* Part III.B, and by placing that requirement in the Consent Decree, rather than the Tri-Party Agreement. Furthermore, including Supplemental Vitrification in the Consent Decree would impose substantial burdens on DOE—in terms of additional resources and project disruption—with no basis and without a finding of liability. *See Fox*, 680 F.2d at 323.

Similarly, by requiring Direct Feed HLW, the State's proposal would alter the parties' original agreement and impose substantial new burdens on DOE, again without justification or an underlying finding of liability. Indeed, DOE estimates that it would cost at least $500 million to implement Direct Feed HLW. Shrader Supp. Decl. ¶ 31. Furthermore, requiring Direct HLW would constrain DOE's discretion by requiring DOE to implement a new approach to nuclear waste treatment that DOE has not, at this point, determined to be warranted or appropriate pursuant to its AEA authority. *See infra* Part III.B.

The State makes no attempt to explain how either of these new project requirements is tailored to resolve the problems caused by the changed circumstances in this case. In fact, they are not, as neither one will accelerate the schedule for achieving initial operations of the WTP. *See* Shrader Supp.

Decl. ¶¶ 28-38. By mandating project elements that will not advance WTP completion yet will interfere with DOE's nuclear waste treatment decisions, the State is asking for a modification that would only "do more," *see Rufo*, 502 U.S. at 391, and so the State's proposal must be rejected.[15]

D. The State's Proposed "Accountability" Measures Would Not Address the Problems Facing the WTP Project.

Although DOE is amenable to additional reporting requirements and has proposed reasonable ones (discussed below), the State's proposed "accountability" measures are overly intrusive and counterproductive. The State proposes three new measures to supplement DOE's monthly and semi-annual reporting requirements to the State and the "serious risk" notice already required by the Consent Decree: (1) quarterly reports by DOE with an opportunity for the State to submit comments to the Court; (2) a requirement that DOE provide a "recovery plan" and schedule whenever information indicates that a milestone may be at risk; and (3) an annual "funding needed" report that sets forth DOE's funding requirements to achieve compliance with the Consent Decree for the seven upcoming federal fiscal years. Wash. Br. 55-56.

[15] The State's proposal would also, without explanation, expand the Consent Decree by incorporating additional project elements from the Tri-Party Agreement. Wash. P.O. Ex. A, Milestones A-3 to A-10 (Effluent Treatment Facility/Liquid Effluent Retention Facility), and A-79 to A-83 (Interim Immobilized High-Level Waste Storage). DOE is already committed to these project elements under the Tri-Party Agreement. HFFACO Milestones M-047-00, M-047-07, M-062-45 (item 7); Milestone Series M-090. Nevertheless, including these elements in the Consent Decree would unnecessarily curtail DOE's flexibility to design and build these supporting facilities, and thus re-write the parties' original bargain in a manner that is not tailored to resolve the current problems facing the WTP project.

1. The State's Proposed Reporting and "Recovery Plan" Requirements Are Unworkable and Will Not Address the Problems Facing the WTP Project.

DOE recognizes that, in light of the current technical obstacles and associated issues facing the project, additional reporting and planning are appropriate. In addition to retaining the "serious risk" notification in the original Consent Decree, CD ¶ IV-C-3, which provided for notice well in advance of the affected milestones, DOE's proposal would require DOE, within 90 days of such notification, to provide the State with an explanation of the circumstances that gave rise to the notice and the steps DOE is taking to address the underlying issue or issues. U.S. P.O. (ECF No. 76-1) ¶ 6(b). DOE's proposal would also require DOE: (a) to brief the State every 90 days on the status of the technical issues facing the Pretreatment and High-Level Waste Facilities, until those issues are resolved; and (b) to provide a report to the State after 12 months that will describe DOE's progress in resolving the technical issues and identify the steps DOE plans to take over the following 24 months. *Id.* ¶ 4(b), (d). Finally, DOE would be required to provide annual status reports to the Court describing DOE's progress in complying with Consent Decree requirements. *Id.* ¶ 6(a). These measures, in conjunction with DOE's proposed new approach to setting milestones, are tailored to ensure that DOE continues to keep the State apprised of its efforts to resolve technical issues and its plans for responding to other potential schedule delays that may arise.

By contrast, the new requirements proposed by the State are unduly burdensome and would be counterproductive to achieving the central objective of getting the WTP up and running. The proposed quarterly report requirement would allow the State, within 45 days after DOE submits a quarterly report, to file comments with the Court, including "a request that [DOE] clarify or provide

further information regarding the contents of the quarterly report." Wash. P.O. (ECF No. 75-1) ¶ 4.b. As a result, this new requirement would subject DOE to an intrusive and endless "do loop" of responding to State comments and preparing the next quarterly report, all the while diverting resources and attention from necessary work without resolving the problems at hand. Shrader Supp. Decl. ¶ 39.

The State's "recovery plan" requirement is similarly flawed. The State's proposal would replace the Consent Decree's "significant risk" notification requirement with a lower threshold for DOE to take action, requiring DOE to submit a "recovery plan" in the form of a proposed Consent Decree amendment within 45 days of identifying any "information that *indicates* to Energy that it *may not* be able to meet a milestone." Wash. P.O. ¶ E.1. (emphasis added).

This requirement is impractical and potentially crippling. At any given time, DOE is managing a wide range of project dynamics and circumstances that may indicate some inability to meet milestones, while not posing a serious risk. Shrader Supp. Decl. ¶ 40. If the "recovery plan" bar is set as low as the State proposes for its more than 100 milestones, DOE would face an endless cycle of reporting and plan submission that would be highly detrimental to the project. *Id.* Indeed, because the State's schedule is arbitrary and unattainable, *see supra* Part II.A, DOE would likely need to notify the State and the Court and develop one or more "recovery plans" shortly after the new milestones became effective. *Id.* Furthermore, the State's proposed 45-day period for submitting a recovery plan—which must include a proposed amendment of the Consent Decree with new milestones—would be inadequate for all but the simplest problems while simultaneously impeding DOE's ability to take the steps needed to address those problems. *Id.*

2. The Proposed "Funding Needed" Report Does Not Address Problems Facing the Project and Would Violate Sovereign Immunity.

As with its other accountability measures, the State fails to show that the "funding needed" report is tailored to respond to the changed circumstances requiring modification of the Consent Decree. Although the State suggests that it needs "detailed budget information" to "provide a clear distinction between the relative roles of funding and technical issues in delays," Wash. Br. at 22, that position again ignores the undisputed seriousness of the technical issues, their role as the driving factor for the WTP construction delays, and the irrefutable fact that key elements of the WTP project cannot be completed until those issues are resolved. *See supra* Parts I.A, II.A.1. Thus, the "funding needed" report is not tailored to resolve the problems at hand.

Moreover, the new report is unnecessary to meet the State's asserted objective. The State already has access to the Executive Branch's appropriation requests for the WTP and the tank farms because those requests are publicly available in the President's annual budget request to Congress. And the State has access to detailed information about Hanford funding needs pursuant to the Tri-Party Agreement. *See* HFFACO, Art. XLVIII ¶¶ 148-49; App. D, Milestone M-036-01A. Taken together, that existing information already allows the State to determine whether the Executive Branch is requesting sufficient funding from Congress for Hanford.

Insofar as the State is seeking to use the new report to determine whether an alleged funding limitation "is within or beyond Energy's control," Wash. Br. at 42—a standard that is not part of the Consent Decree—that raises a separate problem. The budget requests that are exchanged within DOE and between

DOE and the Office of Management and Budget during the formation of the President's budget are internal Executive Branch communications that are protected by the deliberative process privilege. *See United States v. Manning*, 434 F. Supp. 2d 988, 1018-19 (E.D. Wash. 2006), *aff'd*, 527 F.3d 828 (9th Cir. 2008). Accordingly, to the extent that the State views its proposed report as a vehicle to obtain privileged information, the State's proposal must be rejected.

Finally, the "funding needed" report required by the State's proposal should be rejected on intergovernmental immunity and sovereign immunity grounds. Federal facilities such as Hanford are immune from State regulation, except as authorized by Congress. *Boeing Co. v. Movassaghi*, 768 F.3d 832, 839 (9th Cir. 2014). The State can point to no waiver of federal immunity that would allow the State to compel DOE to disclose its anticipated funding needs for the construction and operation of federal nuclear facilities. Thus, the State could not have obtained the "funding needed" report as the result of litigation. The Court should therefore reject the State's attempt to obtain that information now through a modification of the Consent Decree. *See Missouri v. Westinghouse Elec., LLC*, 487 F. Supp. 2d 1076, 1088 (E.D. Mo. 2007).

E. The State's Proposal Is Not in the Public Interest.

In addition to the significant flaws discussed above, the State's proposal is contrary to the public interest because it would substantially increase the cost of the project but achieve no significant benefit.

1. The Cost of Implementing the State's Proposal Would Be Excessive and Jeopardize Other DOE Cleanup Activities.

The State's proposal fails *Rufo*'s tailoring requirement because it does not account for realistic financial constraints on the tank waste treatment mission at Hanford. Indeed, the State makes no attempt to estimate the cost of its plan,

appearing instead to assume that DOE can expect unlimited funding or that funding limitations are irrelevant. As the Supreme Court pointed out in *Rufo,* however, "[f]inancial constraints . . . are a legitimate concern of government defendants . . . and therefore are appropriately considered in tailoring a consent decree modification." *Rufo,* 502 U.S. at 392-93.

The financial constraints at issue here are significant and must be given substantial weight in determining an appropriate modification to the Consent Decree. Because of the enormity of the tank waste treatment mission and the scope and complexity of the WTP project, Hanford's Office of River Protection already receives approximately $1.2 billion annually—more than one-fifth of the annual budget for DOE's Office of Environmental Management, which is charged with cleaning up legacy waste at sites throughout the Nation's nuclear weapons production and nuclear energy research complex. Declaration of James Owendoff ("Owendoff Decl.") ¶¶ 9-11, 17 (attached as Ex. F). Absent Congress increasing appropriations significantly, which is unlikely in this time of federal fiscal constraints, any additional allocation of funds to the Office of River Protection would result in the diversion of significant funds from other cleanup projects in the Office of Environmental Management's portfolio, such as the Richland Operations Office at Hanford,[16] the Savannah River Site in South Carolina, the Oak Ridge Reservation in Tennessee, the Waste Isolation Pilot Plant in New Mexico, and/or the Idaho National Laboratory. *Id.* ¶¶ 32-33. Most of these cleanup operations are subject to administrative orders or other

[16] The Richland Operations Office is responsible for much of the Hanford cleanup, including the decommissioning of Hanford's nuclear reactors, remediation of plutonium production areas and excess nuclear research facilities, retrieval of some buried transuranic waste, soil remediation, and operation of Hanford's groundwater remediation systems. *See* Harp. Decl. ¶ 24.

legal requirements that could be affected if funding were to be diverted from those sites. *See id.* ¶¶ 13, 33.

Even employing conservative assumptions—and assuming *arguendo* that the State's proposal is technically feasible and appropriate, which it is not—the additional costs required to implement the State's plan would be staggering and unattainable under current federal fiscal constraints. *Id.* ¶¶ 28-30. DOE estimates that, over the next five fiscal years, the cumulative cost of implementing the State's proposal would be at least $4 billion more than the Office of River Protection's historical average appropriations, and that differential would increase to more than $18 billion by fiscal year 2029. *Id.* ¶ 28. By fiscal year 2019, the State's plan would require annual funding of approximately twice the Office of River Protection's historic average annual appropriations level, with even higher annual costs projected in subsequent fiscal years. *Id.* ¶¶ 28-29.

Those funding levels are simply not realistic. The State's proposal substantially outpaces any probable future increase in Congressional appropriations. The federal government is currently operating under significant fiscal constraints and there is no foreseeable scenario in which those constraints ease. *Id.* ¶ 29. Without additional Congressional appropriations, funding the State's proposal would redirect funds intended for other DOE cleanup sites. If DOE were to divert sufficient funds from cleanup operations at the sites described above to support the level of funding required by the State's proposal, the result would be devastating: operations at those sites would be severely curtailed, thereby interfering with DOE's ability to carry out its national cleanup mission for legacy nuclear weapons production and research sites, and risking non-compliance with legal requirements—and potential risks to human health

and the environment—at those sites. *Id.* ¶¶ 31-35. By contrast, while DOE's proposal would also require funds beyond historic appropriation levels for the Office of River Protection, DOE's proposal reflects a thoughtful assessment of current fiscal realities and the funding that could be responsibly allocated in light of all of DOE's nuclear cleanup obligations. *Id.* ¶ 31. Because the cost of the State's proposal would be excessive and have significant effects on DOE's nationwide cleanup operations, it fails to meet *Rufo*'s tailoring standard and must be rejected.

2. The State's Proposal Will Not Significantly Reduce Risks to Groundwater from Hanford's Tank Waste.

Although the State attempts to justify its plan as being necessary to reduce the likelihood of future tank leaks and, thus, reduce associated risks at Hanford, *see* Wash Br. at 43-44, that attempt comes up short. Even assuming *arguendo* that the State's proposal were practicable, it still would not reduce risk in any meaningful way compared to DOE's plan. As justification for its proposed double-shell tank construction requirement, the State's analysis boils down to the simple assessment that the likelihood of single-shell tank deterioration and leakage will only increase with time. Wash. Br. at 43. Although this assessment is correct on the most general level, it is too imprecise to be a reliable guidepost.

Here, under the State's reasoning, the key inquiry is whether tank leakage is significantly more likely due to the delay in reaching initial operations for the WTP. The available evidence indicates that the risk of single-shell tank leakage would not be significantly greater due to the delay in WTP operations. In spite of their original "design life,"[17] the tanks are structurally sound and DOE has

[17] The State's brief repeatedly refers to the 20-30 year "design life" of Hanford's single-shell tanks, suggesting that the tanks are not fit for continued waste

(Footnote continued on next page…)

robust programs in place to monitor their leak integrity. Fletcher Decl. ¶¶ 37-39. Interim stabilization has reduced the amount of supernate (liquid that rests on top of the solids in the tanks) and interstitial liquid (liquid located within the solids in the tanks) in the single-shell tanks to a total of 2.7 million gallons. *Id.* ¶¶ 35-36. Because these liquids would have to migrate through the tank waste solids to a leak location in a tank, interim-stabilized tanks generally have a small likelihood of further leaks. Fletcher Supp. Decl. ¶ 15.

Notwithstanding the structural integrity of the tanks, the risk that single-shell tanks may leak over time cannot be eliminated, even though it has been greatly minimized. Fletcher Supp. Decl. ¶ 15; Fletcher Decl. ¶¶ 34-38. Contrary to the State's suggestion, modeling and other analyses indicate that such potential leakage as a result of delays in the WTP project would not significantly increase risk to groundwater or to the Columbia River. Fletcher Supp. Decl. ¶¶ 3, 24-25.

One important factor is the nature of the existing contamination and DOE's ongoing efforts to contain and treat it. Historic plutonium production operations at Hanford, which resulted in tank leaks and intentional discharges, have led to underground soil and groundwater contamination. *Id.* ¶¶ 7-8. Because this groundwater is not used for human consumption, it presents no current risk. *Id.* ¶¶ 22-23. Nevertheless, DOE has an extensive remediation system in place at Hanford to remove contaminants from the groundwater. *Id.* ¶¶ 9-10. The groundwater remediation system operating in the area of

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storage because that 20-30 year period has passed. Although design life is a helpful forward-looking estimate, it does not displace information gained from current data and assessments regarding the current structural stability of the tanks or information regarding how the tanks have been managed and maintained. Fletcher Supp. Decl. ¶ 13. At Hanford, this data shows that a tank's useful life can extend well beyond its original design life. *Id.* ¶ 14.

Hanford's tank farms was installed by DOE to pump and treat historic contamination. *Id.* ¶ 8, 19. However, that system can also extract and treat groundwater in response to current or future contamination, including tank leaks, as appropriate. *Id.* ¶ 19. Due to these capabilities and the low likelihood of substantial future leaks, DOE does not anticipate that future tank leaks will lead to contaminant plumes that will exceed drinking water or surface water standards outside of the Central Plateau. *Id.* ¶¶ 22-24.

DOE has also modeled the long-term impacts of a scenario in which the tanks leak a large volume of waste, and concluded that such a leak would not significantly increase risks to groundwater or the Columbia River. *Id.* ¶ 24. In its *Final Tank Closure & Waste Management Environmental Impact Statement*, DOE evaluated all past releases together with the potential impacts of future tank leaks, which were assumed to occur simultaneously during the retrieval process. *Id.* ¶¶ 24, 24(a). For purposes of that analysis, DOE assumed a 4,000 gallon loss for each of the single-shell tanks for a total potential leak volume of 596,000 gallons in one scenario, *id.* ¶ 24(a), and even greater leaks in another scenario, *id.* ¶ 24(c). The results indicate that potential releases of that magnitude during retrieval would not be a major contributor to long-term groundwater impacts. *Id.* ¶ 24(a). Moreover, these modeled scenarios are conservative given that such leaks are unlikely for interim stabilized tanks. *Id.* ¶ 25. And DOE's groundwater and soil remediation program and the use of impermeable surface barriers will further minimize the chance that future tank leaks will occur or ever reach the River if they do. *Id.* Thus, potential leakage as a result of delays in the WTP project would not significantly increase risk to groundwater at Hanford or to the Columbia River. *Id.* ¶¶ 3, 24-25.

Accordingly, the State's insistence on building costly double-shell tanks is unjustified from a risk-reduction perspective. The State's proposal, for the myriad reasons explained above, is not suitably tailored to resolve the problems facing the WTP project and, thus, the State's request for modification should be denied.

III. The State's Proposal Conflicts with the Supremacy Clause, the Doctrine of Sovereign Immunity, and the Atomic Energy Act.

Even if the State's proposal could meet the tailoring requirements of *Rufo*, which it cannot, central elements of the State's plan would still be impermissible because they contravene the Supremacy Clause, violate the principle of sovereign immunity, or are inconsistent with the AEA. *See Missouri v. Westinghouse Elec., LLC*, 487 F. Supp. 2d at 1088 (refusing to enter a consent decree that would have authorized the State of Missouri to regulate the cleanup of AEA materials).

A. DOE Has Exclusive Regulatory Authority Over Nuclear Materials at Hanford, and Congress Has Not Waived Federal Immunity with Respect to State Regulation of Those Materials.

Federal supremacy and immunity issues are critical in this case because the WTP is a federal nuclear facility, being built by federal authorities on a federal installation, with the fundamental purpose of treating and disposing of AEA materials that Congress has placed within the exclusive control of federal authorities—here, DOE. Under the Supremacy Clause, the activities of federal installations such as Hanford are immune from state regulation—a doctrine known as "intergovernmental immunity"—absent a clear and unambiguous congressional waiver. *Boeing Co.*, 768 F.3d at 839. Sovereign immunity shields such federal entities from lawsuits absent a clear and unambiguous

congressional waiver allowing such suits. *See United States v. Mitchell*, 445 U.S. 535, 538 (1980).

In RCRA, Congress provided a limited waiver of these immunities that subjects federal facilities to certain State regulations governing "hazardous waste." 42 U.S.C. § 6961(a). However, the waiver does not extend to AEA materials; federal facilities thus remain immune to State regulation of AEA materials and associated lawsuits. *Id*. § 6903(5), (27); *see Boeing Co.*, 768 F.3d at 841 (RCRA "does not authorize [States] to regulate DOE's cleanup of radioactive contamination"); *United States v. Commonwealth of Kentucky*, 252 F.3d 816, 825 (6th Cir. 2001) ("Neither the AEA nor any other federal law waives federal immunity from regulation of DOE facilities by states with respect to materials covered by the AEA.").

Under the AEA, federal authorities have "exclusive jurisdiction" to regulate the transport, handling, and disposal of AEA materials, the construction and operation of nuclear facilities, and associated nuclear safety concerns. *Pac. Gas*, 461 U.S. at 207, 212; *English v. Gen. Elec. Co.*, 496 U.S. 72, 84 (1990) ("state regulation of matters directly affecting the radiological safety of nuclear-plant construction and operation . . . infringe[s] upon the [federal government's] exclusive authority" (internal quotation marks and brackets omitted)). States are therefore precluded from regulating in those areas. *See Silkwood*, 464 U.S. at 250; *accord United States v. Manning*, 527 F.3d at 836.

Hanford's tank waste is "mixed waste," which is defined by RCRA to mean waste that "contains both hazardous waste and source, special nuclear, or by-product material subject to the [AEA]." 42 U.S.C. § 6903(41). Mixed waste is regulated under multiple authorities. Pursuant to the AEA, DOE exclusively regulates the radioactive component of mixed waste, while pursuant to RCRA,

EPA and authorized states—such as Washington—regulate the hazardous component. *United States v. Manning*, 527 F.3d at 833. However, RCRA also bars States from regulating "any activity or substance" that is subject to the AEA except insofar as such regulation "is not inconsistent with" the AEA. 42 U.S.C. § 6905(a).

Washington State has limited authority over many activities at Hanford, including the operation of the tank farms and the construction of the WTP, because the tank waste at Hanford contains AEA materials that are within DOE's exclusive regulatory authority. Although the State has authority to regulate the "hazardous waste" component of the waste and require permits for facilities that handle hazardous waste, it is the radioactive component of the waste that is central to DOE's tank farm and WTP operations. Indeed, the very reason that the WTP is necessary in the first place is to provide a treatment capacity for the AEA materials so that they can be disposed of in accordance with the AEA.

Although the WTP will also treat the "hazardous waste" component of the tank waste to RCRA standards, that is incidental to the WTP's central purpose and reason for existence. At bottom, the WTP is a nuclear facility designed to treat AEA materials. The State has no authority to regulate the treatment or disposal of those AEA materials, the construction and operation of nuclear facilities, or any associated nuclear hazards. *See Pac. Gas*, 461 U.S. at 212 ("the federal government has occupied the entire field of nuclear safety concerns"); *United States v. Manning*, 434 F. Supp. 2d at 1002 ("The State cannot . . . regulate the AEA radioactive component of mixed waste"). Moreover, where there is an inconsistency between the State's regulatory activities and the AEA, the AEA prevails. 42 U.S.C. § 6905(a).

B. The State's Proposed Construction Schedule Would Allow the State to Usurp DOE's Role as the Exclusive Regulator of Nuclear Hazards at Hanford.

Several elements of the State's proposed WTP construction schedule would authorize the State to intrude into the area of exclusive federal authority established by the AEA. In particular, the State's proposal would allow the State to: disapprove DOE's plans and schedule for resolving nuclear safety issues; micromanage and overrule DOE's construction plans for nuclear waste treatment facilities; and compel DOE to implement treatment methods for AEA materials that DOE has not determined to be appropriate. Because these elements of the State's plan would regulate AEA materials, nuclear facility construction, and nuclear safety hazards at Hanford, they are neither authorized by the limited waiver of immunity in RCRA nor consistent with the AEA, and so must be rejected.

The State's proposed schedule for technical issue resolution is problematic in at least two respects. First, it would grant the State the authority to approve or disapprove of DOE's "technical approach and schedule" for resolving technical issues. Wash. P.O. Ex. A, Milestones A-17, A-59, A-84. These technical issues all present nuclear safety concerns, including potential releases of radioactivity. Shrader Decl. ¶ 10. Because nuclear safety concerns are the exclusive province of federal authorities under the AEA, *Pac. Gas*, 461 U.S. at 212, the State has no authority to countermand DOE's technical resolution plans in this area. *See, e.g., Maine Yankee Atomic Power Co. v. Bonsey*, 107 F. Supp. 2d 47, 55 (D. Me. 2000) (finding that Maine had "no role to play" regarding the method of nuclear waste storage, the specifications for

waste storage containers, or the ability of the storage areas to withstand natural phenomena at a nuclear facility).

Second, the State's proposed schedule for technical issue resolution would require DOE to resolve these nuclear safety issues by a date certain or risk noncompliance with the Consent Decree. Wash. P.O. Ex. A, Milestones A-18, A-60, A-85. As we have established, however, technical issue resolution is an iterative process that does not lend itself to hard milestones because one cannot predict with certainty that a particular testing protocol will resolve the matter or, even if a resolution is reached, what type of design changes may be necessary or how long that process will take. *See supra* Part II.A.2. The State has no regulatory authority over nuclear safety issues in the construction of nuclear facilities; accordingly, it cannot be in the position of compelling DOE to resolve nuclear safety issues by a date certain when doing so is inconsistent with DOE's obligations and authorities under the AEA.

The Court should also reject the State's attempt to micromanage DOE's handling of the WTP project. In particular, although in certain circumstances construction and commissioning milestones necessary to satisfy RCRA would be consistent with the AEA, the State's proposal would require DOE to submit to the State highly-detailed "construction-specific milestones (based on level 4 deliverables or equivalent)" for each WTP facility that, once approved by the State, would be enforceable under the Consent Decree. Wash. P.O. Ex. A, Milestones A-4, A-21, A-29, A-38, A-63, A-72, A-80, A-87, A-94. The State's attempt to install itself as the de facto supervisor of a federal nuclear construction project that DOE is undertaking pursuant to its AEA authorities is misguided and impermissible. The State's plan would enable an oppressive level of State intrusion and oversight in the area of nuclear facility construction

where the State lacks relevant experience and expertise. Moreover, giving the State an effective veto over critical DOE project management decisions would allow the State to usurp DOE's role as the agency entrusted by Congress to manage the construction and operation of the WTP. *See Missouri v. Westinghouse Elec., LLC*, 487 F. Supp. 2d at 1080 (refusing to enter a consent decree where "through the Consent Decree, the State of Missouri is attempting to control the decontamination of a site containing radioactive contaminants").

The State's proposed schedule would also intrude upon DOE's authority under the AEA by allowing the State to dictate specific methods and approaches for the treatment and disposal of AEA materials. In particular, as discussed in Part II.C *supra*, the State's proposal would require DOE to construct and operate a second Low-Activity Waste Facility (which the State refers to as "Supplemental Vitrification"), Wash. P.O. Ex. A, Milestones A-93 to A-99, and to implement a "Direct Feed HLW" capability, *id.*, Milestones A-70, A-78. However, DOE has not determined that Supplemental Vitrification or Direct Feed HLW are appropriate methodologies for this project—a determination that falls within DOE's exclusive authority over the treatment and disposal of AEA materials and the construction of federal nuclear facilities designed to treat those materials. *See Pac. Gas*, 461 U.S. at 212; *Brown v. Kerr-McGee Chem. Corp.*, 767 F.2d 1234, 1242 (7th Cir. 1985). The State's attempt to trump DOE's authority and dictate particular treatment methods and approaches for AEA materials is unwarranted, barred by the Supremacy Clause, and must be rejected.

C. The State's Proposal for Double-Shell Tank Construction Is Inconsistent with the AEA.

The State's proposal would authorize the State to compel DOE to build four million gallons of double-shell tank capacity by 2022, and an additional

eight million gallons by 2028 if the State disapproves DOE's retrieval plans. Wash. P.O. Ex. D, Milestones D-4 to D-9, D-10 to D-14. This element of the State's proposal must be rejected because it is inconsistent with the requirements of the AEA in the circumstances of this case.

As noted above, RCRA bars states from regulating "any activity or substance" that is subject to the AEA except insofar as such regulation "is not inconsistent with the requirements" of the AEA. 42 U.S.C. § 6905(a). Whether State regulation is inconsistent with the AEA must be determined on a case-by-case basis, considering a variety of factors. *See* Office of Legal Counsel, U.S. Dep't of Justice, *Application of the Resource Conservation and Recovery Act to the Department of Energy's Atomic Energy Act Facilities* (Feb. 9, 1984) ("OLC Memo"), *available at* 1984 WL 178349, **1.

Here, DOE has determined, pursuant to the AEA, that its approach for treating the tank waste at Hanford is to retrieve waste from the single-shell tanks and store it in the existing double-shell tanks until the treatment capacity (i.e., the WTP) is operational. *See Record of Decision, Final Tank Closure and Waste Management EIS for the Hanford Site, Richland, Washington*, 78 Fed. Reg. 75,913, 75,916 (Dec. 13, 2013) (choosing alternative 2B); *Final Tank Closure & Waste Management EIS* (DOE/EIS-0391) *Summary* at S-38 to S-45 (2012) (describing alternatives);[18] Fletcher Decl. ¶¶ 28-30. As an integral element of that decision, DOE concluded that no new double-shell tanks would be required for the waste retrieval mission. *Final Tank Closure & Waste Management EIS, Summary* at S-40 (describing the chosen alternative 2B as "[c]ontinu[ing] current waste management operations using existing tank storage

[18] The EIS is available at http://www.hanford.gov/page.cfm/FinalTCWMEIS.

facilities . . . . no new [double-shell tanks] would be required"). Thus, in exercising its AEA authority, DOE has determined that, to complete the tank waste treatment mission, it will prioritize the completion of the WTP to treat the waste, while using the existing tank inventory for storage until the waste can be treated. This continues to be DOE's approach in light of the technical issues and resulting delay in completing the WTP. Fletcher Suppl. Decl. ¶ 30.

The State's proposal to compel construction of costly, additional double-shell tanks is incompatible with these determinations by DOE. As the purported authority for this element of its proposal, the State points to RCRA regulations (adopted by Washington in its HWMA) that require the owner of storage tanks that are leaking or unfit for use to remove the tanks from service and "within 24 hours after detection of the leak or, if the owner . . . demonstrates that that is not possible, at the earliest practicable time remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed." 40 C.F.R. § 265.196(b). As the State acknowledges, however, DOE cannot—because of the AEA materials that are inextricably intermixed with the hazardous waste—simply remove the waste from the tanks and send it to a RCRA treatment facility. *See* Dahl Decl. ¶ 18 ("due to the nature of the radioactive constituents in the waste, there is currently no treatment capacity for tank waste at Hanford"). Rather, DOE must create a treatment capacity for this mixed waste from the ground up. Indeed, DOE is in the process of building the WTP specifically to address the radiological hazards posed by AEA materials in Hanford's tank waste.

The new double-shell tank capacity required by the State's proposal, however, would delay DOE from completing this core element of DOE's plan.

The up to 12 million gallons of new construction tank capacity required by the State's proposal would be a massive undertaking that would require years to complete at a cost that could exceed $1 billion. Fletcher Suppl. Decl. ¶¶ 29, 35, 37. Although increased compliance costs and operational burdens attributable to RCRA will not rise to a level of inconsistency with the AEA in every instance, the circumstances here are extraordinary: embarking on a capital construction project of that magnitude would result in a massive diversion of resources and focus away from the core of DOE's tank waste treatment mission—the completion of the WTP—thereby delaying the project and prolonging for years the ultimate treatment and disposal of the tank waste. *Id.* ¶¶ 30-31, 36-38. Moreover, that potential damage to the WTP project would have no countervailing benefit, because new double-shell tanks are not necessary to reduce risks to groundwater at Hanford. *See supra* Part II.E.2.

In sum, DOE has determined pursuant to the AEA to undertake the construction of the WTP to treat and dispose of nuclear materials using Hanford's existing tank inventory. The State's proposal seeks to displace DOE's carefully considered determination of how to address the unique nuclear waste treatment requirements at Hanford, and would impose unrealistically high costs without significantly reducing risk. The State's assertion of RCRA authority in this instance therefore conflicts with DOE's determination of how to address AEA materials and, as described above, would materially undermine DOE's waste treatment operations by forcing DOE to divert critical resources and attention from the WTP with no significant benefit. The State's authority must therefore give way. *See* OLC Memo at **11 & n.27 (noting that an inconsistency within the meaning of 42 U.S.C. § 6905(a) could arise where full compliance with RCRA would result in excessive costs relative to the risks

involved due to the unique nature of DOE's nuclear operations). Moreover, DOE's mission will promote compliance with RCRA's objectives, both in terms of retrieving the waste from the tanks and treating it. For all these reasons, the State's proposal is inconsistent with the requirements of the AEA, *see* 42 U.S.C. § 6905(a), and must be rejected.

CONCLUSION

For these reasons, the United States respectfully requests that the Court deny the State's Petition, grant the United States' Motion, and enter the United States' proposed order modifying the Consent Decree.

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CERTIFICATE OF SERVICE

I hereby certify that on December 5, 2014, I electronically filed the foregoing (along with attachments) with the Clerk of the Court using the CM/ECF system which will send notification of such filing to counsel of record in this action.

I hereby certify that I have mailed by United States Postal Service the document to the following non-CM/ECF participants: NA

s/Kenneth C. Amaditz
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