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Congress of the United States
House of Representatives
Washington, DC 20515–2107

November 22, 2011

The Honorable Steve Chu
Secretary, Department of Energy
1000 Independence Ave. S.W.
Washington, DC 20585

Dear Secretary Chu,

I write to request information regarding recent allegations of whistleblower retaliation and unsafe operations at the Hanford Nuclear Site's Waste Treatment Plant (WTP), the nation's largest and most expensive environmental remediation effort. I am concerned that the Department of Energy (DOE) has failed to respond to these allegations in a manner that instills public trust in the safety of these facilities or addresses the retaliatory manner in which those who raised safety concerns were treated.

The WTP is being built to treat Hanford's high-level nuclear waste currently stored in 177 aging underground tanks, 70 of which have already leaked about 1 million gallons of waste into the groundwater, which feeds the Columbia River located about 12 miles away.[1] About 56 million gallons of this waste needs to be removed, treated and disposed of before further leaks occur.

The costs associated with this project represent a significant portion of the DOE's environmental management budget. According to the Government Accountability Office (GAO), the construction cost estimates for this project have ballooned from $4.3 billion in 2000 to $12.3 billion in 2006, and the costs of actually treating the waste could exceed $100 billion and could take until 2047[2] to complete. And just yesterday, the Department announced[3] as it released its latest Construction Project Review of the project that its costs would increase by another $800-$900 million, and that the Department's rating for the project would be downgraded from its current 'yellow' to 'red', meaning that they believe that the project is highly likely to miss additional deadlines or cost milestones.

DOE currently plans to dispose of this waste by first separating it into high-level and low-level waste streams using a "pre-treatment" phase after removing it from the waste tanks. Pre-treatment involves filtering, dissolving, and extracting radioactive from nonradioactive

[1] http://www.hanfordwatch.org/introduction.htm

[2] http://www.gao.gov/new.items/d09913.pdf

[3] http://www.seattlepi.com/news/article/DOE-review-raises-concerns-about-Hanford-plant-2280953.php

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constituents such as aluminum, chromium, and salts[4]. The radioactive wastes would then be vitrified in two separate vitrification facilities before permanent disposal.

In March 2006 an external and independent team of more than 50 experts issued a review of technical issues associated with the WTP. This report, entitled "Comprehensive Review of the Hanford Waste Treatment Plant Flowsheet and Throughput" identified 17 major technical challenges that "must be fixed to ensure the Plant will meet design throughput for all presently identified feeds," and 11 potential technical challenges that the group also said needed to be addressed.

According to reports,[5] the deadline for Bechtel and URS (the two DOE contractors involved in the project) to resolve these design issues and receive $5 million from DOE for doing so was June 30, 2010, and that deadline was met when all parties agreed that all necessary technical milestones had been satisfied. However, the decision to close the design out was made in spite of the repeated concerns of Dr. Walt Tamosaitis, formerly the Manager for Research and Technology at the plant. Dr. Tamosaitis had raised particular concerns about the portion of the project that involves mixing the high-level waste in tanks. If the high-level waste is not sufficiently mixed in those tanks, plutonium could settle out and cause a criticality. Also, hydrogen gas bubbles could form, possibly leading to a hydrogen gas explosion if sufficient quantities are generated. Moreover, even if neither of those scenarios develops, poorly mixed waste has the potential to severely degrade the efficiency of the facility.

After Dr. Tamosaitis persisted in raising his concerns by presenting a list of 50 technical concerns to Bechtel and URS managers,[6] he was removed from his managerial position and assigned to sit in a basement office doing essentially nothing. According to reports,[7] emails,[8] and court documents,[9] this demotion was tied to his safety complaints: "Walt is killing us," Bechtel manager Frank Russo wrote in an email on July 1, to one of Tamosaitis' bosses. "Get him in your corporate office today." The response to that email was "He will be gone tomorrow". Other

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[4] http://www.gao.gov/new.items/d09913.pdf

[5] See for example the July 22, 2011 article in The New York Times Greenwire entitled "Independent Probe, Manager's Firing Raise Questions About 'Safety Culture' at DOE's Nuclear Waste Site and the October 9, 2011 article in the Oregonian entitled "Safety Issues at Hanford Nuclear Reservation at Pretreatment Plant Remain in Question," and the October 19, 2011 article in Crosscut entitled "Hanford Safety Issues Dog New Plant," the September 13, 2010 article in Weapons Complex Monitor entitled "DOE Closes Out Waste Mixing Issue at Hanford Vit Plant" and documents prepared and filed in Dr. Tamosaitis's case against Bechtel, Case NO. CV-10-5116-RHW in the United States District Court Eastern District of Washington

[6] Documents prepared and filed in Dr. Tamosaitis's case against Bechtel, Case NO. CV-10-5116-RHW in the United States District Court Easter District of Washington

[7] See for example the July 22, 2011 article in The New York Times Greenwire entitled "Independent Probe, Manager's Firing Raise Questions About 'Safety Culture' at DOE's Nuclear Waste Site

[8] http://sheridanlawfirm.com/SiteData/Docs/walt-is-killing-us-email-string.pdf

[9] See documents prepared and filed in Dr. Tamosaitis's case against Bechtel, Case NO. CV-10-5116-RHW in the United States District Court Easter District of Washington

emails[10] indicate that both Ines Triay, then-Assistant Secretary for Environmental Management at DOE, and Deputy Secretary Daniel Poneman had been briefed on the matter and "understand the reasons for Walt's departure," "support" Bechtel management, but that "DOE can't be seen as involved."

On July 16, 2010, Dr. Tamosaitis transmitted correspondence describing his experience to the Defense Nuclear Facilities Safety Board (DNFSB).[11] On June 9, 2011, DNFSB sent a letter[12] to DOE with the results of its extensive investigation into the issues raised by Dr. Tamosaitis. The DNFSB report was scathing in its criticism of both DOE and its contractors, stating that:

> "The Defense Nuclear Facilities Safety Board (Board) has determined that the prevailing safety culture at the Waste Treatment and Immobilization Plant (WTP) is flawed and effectively defeats this Secretarial mandate. The Board's investigative record demonstrates that both DOE and contractor project management behaviors reinforce a subculture at WTP that deters the timely reporting, acknowledgement, and ultimate resolution of technical safety concerns."
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> "The Board's investigation found significant failures by both DOE and contractor management to implement their roles as advocates for a strong safety culture."
>
> "The successful completion of WTP's mission to remove and stabilize high-level waste from the tank farms is essential to protect the health and safety of the public and workers at Hanford. However, the flawed safety culture currently embedded in the project has a substantial probability of jeopardizing that mission."
>
> "...individuals who question current practices or provide alternative points of view are not considered team players and will be dealt with harshly."
>
> "The Board finds that expressions of technical dissent affecting safety at WTP, especially those affecting schedule or budget, were discouraged, if not opposed or rejected without review. Project management subtly, consistently, and effectively communicated to employees that differing professional opinions counter to decisions reached by management were not welcome and would not be dealt with on their merits."
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> "The Board's investigation concludes that the WTP project is not maintaining a safety conscious work environment where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination."

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[10] http://sheridanlawfirm.com/SiteData/Docs/July-28-2010-Russo-email-exchange-protect-50-million.pdf

[11] See www.dnfsb.gov DNFSB is an independent agency whose mission is to identify the nature and consequences of potential threats to public health and safety at the Department of Energy's defense nuclear facilities to elevate such issues to the highest levels of authority, and to inform the public.

[12] http://www.dnfsb.gov/sites/default/files/Board%20Activities/Recommendations/rec_2011-1_11826.pdf

"Previous independent reviews, contractor surveys, investigations, and other efforts by DOE and contractors demonstrate repeated, continuing identification of the same safety culture deficiencies without effective resolution."

"Taken as a whole, the investigative record convinces the Board that the safety culture at WTP is in need of prompt, major improvement and that corrective actions will only be successful and enduring if championed by the Secretary of Energy. The Board recommends that the Secretary of Energy:

- assert federal control at the highest level and direct, track, and validate the specific corrective actions to be taken to establish a strong safety culture within the WTP project consistent with DOE Policy 420.1 in both the contractor and federal workforces,
- conduct an Extent of Condition Review to determine whether these safety culture weaknesses are limited to the WTP Project, and
- conduct a non-adversarial review of Dr. Tamosaitis' removal and his current treatment by both DOE and contractor management and how that is affecting the safety culture at WTP."

In addition to the Tamosaitis case examined by the DNFSB, there have been additional, highly disturbing reports[13] of similar safety concerns as well as retaliation against other highly-respected scientists and engineers involved in the WTP project:

- In August, Local No. 788 of the American Federation of Government Employees filed a grievance with DOE alleging that DOE placed construction deadlines above safety after DOE officials halted the union's stop-work order that was related to their concerns about the safety of the tanks.

- Dr. Donald Alexander, a senior DOE scientist, said that Bechtel management pressured him to sign a document that stated that the waste mixing issues were resolved, but he refused and filed a non-concurring opinion. Dr. Alexander has also repeatedly raised concerns related to the potential for erosion of the piping, tanks and nozzles because of the solids in the tank waste material. In fact, he predicted that the facility, if constructed without resolution of these problems, would fail within 10 years based on contractor erosion data. If such erosion were to occur to the point of failure, portions of the facility would become irreparable since the design does not allow entry once the facility goes into operation because of the high radiation levels.

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[13] See for example the October 9, 2011 article in the Oregonian entitled "Safety Issues at Hanford Nuclear Reservation at Pretreatment Plant Remain in Question," the June 14, 2011 article in the Tri-City Herald entitled "Defense Safety Board Blasts DOE, Bechtel," and the June 14, 2011 article in the Seattle Times entitled "Bosses Imperil Cleanup at Hanford, Agency Says" the October 19, 2011 article in Crosscut entitled "Hanford Safety Issues Dog New Plant, the November 9, 2011 article in the Tri-City Herald entitled "Second Hanford VIT Plant Official Files Whistleblower Claim," and the June 9 2011 DNFSB report submitted to DOE.

- Donna Busche, manager of environmental health and safety at the WTP plant, recently filed suit against the plant claiming she had been retaliated against for raising safety concerns. After she testified as a witness at a public hearing that the release of radioactive contaminants would spread further outside the plant's boundaries in the event of an accident than DOE and Bechtel officials maintained they would, Ms Busche said that she was pressured to alter her testimony and was subsequently verbally admonished by then-Assistant Secretary for Environmental Management Ines Triay. Later, the DOE and Bechtel calculations were acknowledged to be inaccurate.

When the DNFSB report was issued, DOE issued a statement[14] indicating that "At every level of the Department of Energy, we take our obligation to protect the safety of our workers and the public very seriously...We will be reviewing the recommendations from the Defense Board closely in the coming weeks to identify if any additional steps are necessary to further strengthen our approach to nuclear safety."

However, the Department's response to the DNFSB letter and recommendations does not yet appear to have resulted in any such strengthening of the nuclear safety culture at the Hanford site. On June 18, 2011, DOE Deputy Secretary Poneman issued a memo[15] stating that DOE "will be responding in the coming weeks to clarify the record on the facts asserted and respond to the recommendation itself. We expect that our response will also detail specific areas where our own investigations identify inaccuracies in the Board's report." DOE reportedly[16] disagreed with many of the DNFSB's conclusions, including those related to Ms. Busche's allegations that DOE officials admonished her for her testimony and that there existed a safety culture problem at the facility.

On June 22, 2011, Deputy Secretary Poneman sent a letter to DNFSB requesting access to all of the Board's investigative files.[17] On June 30, 2011, Dr. Peter Winokur, the Chairman of DNFSB, sent a letter to DOE Secretary Steve Chu declining this request, citing the Board's long-standing practice of keeping such files confidential so as to preserve the trust of past, current and future whistleblowers or other parties who cooperate with the Board's investigations. On this same date, the DOE responded[18] to the DNFSB report, indicating that it did not agree with the findings of the Board.

My understanding is that despite the emergence of new, serious complaints about the safety culture at the WTP site, allegations about retaliatory behavior against those raising safety concerns on the part of Bechtel and URS personnel, and its own studies that show the project is seriously troubled, the Department continues to disagree with the DNFSB's safety culture

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[14] http://www.kplu.org/post/statement-department-energy-safety-hanford

[15] See the June 21, 2011 article in the Tricity Herald entitled "DOE Alleges Mistakes in Safety Board's Report on Vit Plant" and the June 18, 2011 memo from Deputy Secretary Poneman to Hanford employees

[16] See the June 21, 2011 article in the Tricity Herald entitled "DOE Alleges Mistakes in Safety Board's Report on Vit Plant"

[17] See the June 30 2011 letter from DNFSB to DOE Secretary Steve Chu.

[18] See the August 12, 2011 letter from the DNFSB to DOE Secretary Steve Chu

findings, continues to demand unprecedented access to the Board's files, and continues to assert that the technical matters raised by these individuals are inaccurate.

So that I can more fully understand the Department's views, as well as its management over its contractors, I ask for your prompt response to the following questions and requests for information.

1) I have been informed that Bechtel has selected and is paying for its own panel of individuals to investigate itself.
    a. Please provide me with the names, affiliations and biography of each individual that was selected to serve on this panel.
    b. Please provide me with a copy of the charter, scope or other similar documents that describe the nature of the work this panel has been charged with. What is the timeframe associated with this panel's review?
    c. Will Bechtel and/or DOE be provided, or has either already been provided, with a draft or drafts of this panel's report before it is finalized and transmitted? If so, will Bechtel and/or DOE be afforded the opportunity to make editorial suggestions?
    d. Please provide me with copies of all drafts of the panel's report, including the final transmitted report, as they are made available to Bechtel and/or DOE.

2) For each recommendation made by the DNFSB in its June 2011 report to DOE, please fully describe the steps the Department has taken, is taking or plans to take in response, including a timeline for all such actions or planned actions. If no steps are planned, please explain why not.

3) As noted, the projected costs of the WTP project increased from about $4 billion to $12.3 billion between 2000-2006 and as of yesterday, an additional $800-900 million to more than $13 billion. What is DOE's current cost projection and estimated date of accomplishing a) construction of the facility and b) completion of the treatment of the waste? How much of the cost increases is due to the technical issues that have arisen?

4) There were 28 technical issues identified by the 2006 External Flowsheet Review Team. For each issue, please indicate whether the issue is completely resolved, or, if not, what remains left to do in order to resolve it, the projected date on which the issue will be fully resolved, and the expected costs associated with resolving it.

5) Please describe all steps taken by the Department to investigate and resolve the allegations of retaliation submitted by Dr. Tamosaitis, Ms. Busche and Dr. Alexander? Please provide me with copies of all documents (including reports, emails, memos, phone or meeting minutes or other materials) possessed by DOE or the DOE Inspector General related to the allegations made by these individuals.

6) Please provide me with copies of all documents (including reports, emails, memos, phone or meeting minutes or other materials) possessed by DOE related to any inquiries conducted into the safety culture at the WTP facility within the last five years, including

documents pertaining to allegations of harassment, intimidation, retaliation or discrimination by employees at the WTP in the last five years.

7) Please provide me with copies of a) any emails to/from Dale Knutson from either his PNNL or DOE email addresses in the March 1, 2010, to July 31, 2011 period, b) any emails to/from Shirley Olinger in the March 1, 2010, to July 31, 2011 period, c) any emails related to the WTP or the allegations of safety problems at WTP to/from then-Assistant Secretary Triay or Deputy Secretary Poneman in the April, 2010 to July 2011 period.

8) Please provide me with copies of all DOE reports or analyses that include cost, technology and schedule projections for the WTP plant that were prepared within the last three years, including but not limited to a) the assessment report requested by Mr. Dale Knutson when he assumed responsibility as the WTP Federal Project Director in 2010, b) any systems engineering reports for the WTP, c) copies of any technical assessments done on the WTP during the period April 1, 2010 to July 31, 2011, including assessments performed by groups such as DOE's Environmental Management Advisory Board or the Consortium for Risk Evaluation with Stakeholder Participation.

9) Please provide me with a summary of the fees paid to Bechtel that were related to its completion and/or closing of any of the 28 technical issues raised by the External Flowsheet Review Team.

Thank you very much for your attention to this important matter. Please provide your response no later than close of business on Friday December 16, 2011. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of my staff at 202-225-2836.

Sincerely,

Edward J. Markey

Edward J. Markey