

BEFORE THE UNITED STATES  
DEPARTMENT OF LABOR

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

*In the Matter of:* )  
 )  
WALTER TAMOSAITIS, )  
 )  
Complainant, )  
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v. )  
 )  
URS, INC., )  
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Respondents. )

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COMPLAINT OF DISCRIMINATION

Complainant Dr. Walter L. Tamosaitis, P.E., through counsel, hereby files this Complaint of Discrimination against his employer, URS, Inc., a contractor at the Hanford Nuclear Site, under the Energy Reorganization Act, 42 U.S.C. section 5851, and the Toxic Substances Control Act, 15 USC Section 2622.

I. PARTIES

- 1) Dr. Walter L. Tamosaitis ("Complainant"), residing at [REDACTED] is an employee of URS, Inc., a subcontractor to Bechtel National, Inc., at the Hanford Nuclear Site (Hanford). On July 2, 2010, Dr. Tamosaitis was removed from that assignment in retaliation for having raised performance and safety issues at a meeting held on that date. Prior to his removal, Complainant held the position of the Deputy Chief Engineer and Manager of the Research and Technology division and had been employed at the Hanford Waste Treatment Plant since 2003.
  
- 2) URS, Inc. ("URS"), located at 723 The Parkway, Richland, WA, 99352, (509) 946-3100, is a partner and Principal Subcontractor to Bechtel National, Inc. ("BNI") in a government contract to design, build and commission the Hanford Waste Treatment and Immobilization

Plant, which is intended to stabilize the radioactive and chemical wastes stored in underground tanks at the Hanford Nuclear Site. While URS is called a "subcontractor" they function as a partner in that they split profits (fees paid) 50/50 with BNI and also staff key positions. Their earnings are a direct result of contract milestone performance with BNI as judged by DOE rather than a typical subcontractor payment schedule.

## II. BACKGROUND

- 4) BNI is located at 2435 Stevens Center Place, Richland, Washington, 99352, is a prime contractor for the U.S. Department of Energy's (DOE) Office of River Protection at Hanford and is contracted to accomplish the design, construction, and start up of the Waste Treatment Plant at the Site. The Hanford Site consists of facilities and land, located in southeastern Washington State. Hanford is an environmental restoration and waste management site wholly owned by the DOE. Hanford previously produced plutonium for the U.S. nuclear weapons arsenal.
- 5) Until July 2, 2010, Complainant was employed by URS as the Research & Technology Manager and Assistant Chief Process Engineer at the Waste Treatment Plant ("WTP") at the Hanford Nuclear Site, located in Richland, Washington. Complainant has over 40 years of experience as a Professional Engineer. Complainant is still employed at URS, but is not in his position at the WTP or in a position of equal responsibility and accountability.
- 6) On April 1, 2003, Complainant was transferred by the Washington Group International (which was later acquired by URS, Inc.), to the WTP. Prior to his assignment to the WTP he worked 14 years at the Savannah River National Laboratory, Aiken, SC. Complainant's job duties at the WTP included:
  - a) Responsible for the Research and Technology Program supporting the \$12 billion Waste Treatment Plant Project. Program and Project management responsibilities included:
    - i) Project management of about \$500M of chemical process and flowsheet development and design involving worldwide support.
    - ii) Program management includes first-of-a-kind development programs involving chemical engineering, chemistry, as well as flowsheet development including mixing of non-Newtonian materials, elutable ion-exchange systems, caustic flow sheet vitrification, and metals removal processes. He also led the \$100M Pretreatment Pilot Plant Facility Program from conception to closure.
    - iii) Responsible for maintaining working knowledge of DOE 413.3A Project Management and Technology Readiness Reviews.
    - iv) Acted in the capacity of and represent the Chief Engineer in on and off site meetings and presentations. Responsible for overall guidance of the process flowsheet.
    - v) Led the External Flow Sheet Review Team (a.k.a. the Best and Brightest Review) of the WTP flowsheet consisting of over 50 worldwide recognized experts. This was a first-of-kind study for DOE which set a standard for other reviews. Study identified 28 issues and is key to the success and continuity of the Project.

- vi) Interaction with all major review and customer groups including the DNFSB, State of Washington, the Department of Energy, Government Accountability Office, and Inspector General Office.
  - vii) Program coordination with major universities, national laboratories, and consultants worldwide.
  - viii) Research and development business development for URS involving direct and joint teaming proposals to DOE and program coordination with DOE grant recipients.
  - ix) Development and mentoring of personnel in URS and Bechtel including summer students and interns.
- 6) The Waste Treatment Plant Project represents the largest project of its kind in the nation and is the largest radioactive waste treatment plant for the U.S. Department of Energy (DOE). It is also one of the largest and most expensive environmental remediation projects in the world. The WTP Project is not only critical to protecting the environmental of the multistate area but also in critical to demonstrating our Nation's ability to perform in the nuclear renaissance.
  - 7) When complete, the WTP will be used to transform the 53,000,000 gallons of radioactive and chemical wastes being stored in underground tanks at Hanford into a stable glass form for permanent disposal. The plant uses the process of vitrification where the liquid waste is mixed with molten glass and solidified into a stable form. The full plant is scheduled to be operational by 2020.
  - 8) The WTP will use vitrification technology, which involves blending the waste with glass-forming materials and heating it to over 2,000 degrees Fahrenheit (> 1,100 degrees Celsius). The mixture is then poured into stainless steel canisters to cool and solidify. In this glass form, the waste is stable and impervious to the environment, and its radioactivity will dissipate over hundreds to thousands of years.
  - 9) The WTP Project construction site spans 65 acres and includes four major nuclear facilities -- Pretreatment, Low-Activity Waste Vitrification, High-Level Waste Vitrification and Analytical Laboratory. Construction began in October 2001, and is currently estimated to be about 70% complete overall. Construction is expected to be complete in about 2016, and, following commissioning, the full plant will be operational by 2020. The original Bechtel cost estimate for the WTP was about \$5B and now it exceeds \$12B. The original Bechtel startup date was 2008. Both cost and schedule have grown by over 240%.

### III. PROTECTED ACTIVITY

- 10) As part of his job responsibilities as the Research and Technology Manager, Complainant raised concerns to management about engineering and process issues that could potentially affect the safe operation of the WTP. These issues included but were not limited to:
  - a) Waste mixing issues: The high-level nuclear waste that will undergo treatment at the WTP is in a caustic form, and must be sufficiently and continuously mixed throughout processing. There are safety issues connected to the mixing issue, including the problem

that plutonium, a radioactive element, could settle to the bottom of a processing tank in sufficient quantity to cause a criticality, or nuclear reaction. This is regarded as a very severe accident with high potential for human health and safety consequences. In addition, such an accident would likely render the facility unusable. Another potential problem associated with the waste mixing issue is the probability that insufficient mixing could lead to solidification of the waste form, which would make processing of the wastes problematic, if not impossible. Any processing issue which extends the mission of the Plant is problematic since the WTP has a 40 year design life.

- b) There are several factors directly related to the vessel mixing program that have not been resolved despite the apparent closure of the program (referred to internally as "M3"). These include, but are not limited to, tank sampling, vessel level control, PJM operational control, pump out, heel removal, viscosity control, and pipeline transfer.
- c) In order to follow their own procedures, BNI Engineering must confirm the vessel designs. Their plan is to do this via the use of computational fluid dynamic modeling (CFD). This requires the validation and verification (V&V) of the model's use in fluid systems containing both liquids and solids over a broad range of parameters. This V&V will not be completed for at least a year. If, at that time, the vessels do not meet the design criteria, much rework may be needed.
- d) The current BNI Project Manager and the URS Deputy Project Manager have claimed that any vessel operational (mixing, etc) issues can be solved during startup because access entry ports will be maintained in the rooms the vessels are in. Many of these vessels are in "black cells," which are very confined rooms with little to no space. Making design changes at startup is highly questionable. Not only are the tanks nearly impossible to get to, major modifications would be required to enter the tank. If the plant was radioactive, making such changes would be extremely hazardous to the health of the workers involved and access would be limited to legally-binding exposure limits. The rework cost and delay would be monumental. Nonetheless, the BNI Project Manager stated he will ensure that access doors are provided which can be sealed later. The WTP Deputy Project Manager (URS) advocated putting in an access port for a boroscope to inspect what may be on the bottom of the tanks. Several of these tanks are over 20 feet in diameter and will have a liquid heel in them. Adequate visual analysis and capabilities will be very difficult if not impractical.
- e) Because of the sludge-like waste form, there is a serious risk that pipelines designed to carry the waste may plug. This issue is referred to as the M1 issue. Complainant advocated for a thorough examination of this issue to ensure all pipelines will operate satisfactorily. The BNI approach is to flush every line after a transfer. Tank volumes and processing rates must be carefully reviewed along with the disposition of the flush fluid and flushed materials. BNI Engineering contracted the Pacific Northwest National Laboratory to study the settling of materials in pipelines but has not accepted their recommendations due to the design changes that may be required.

11) In October 2005, Complainant was appointed as the lead the first DOE External Flowsheet Review Team ("EFRT") study, also known as the "Best and Brightest" review. This study was initiated in response to criticism from the Government Accountability Office ("GAO") at a Congressional hearing in April 2005, and pursuant to commitments from the Energy

Secretary for an independent review. Over 50 consultants were hired to review the technical viability of the WTP project over a four-month period. BNI management was reluctant at first to the idea, but eventually agreed to support the review.

- 12) In February 2006, as the EFRT review process was concluding, Complainant clashed with BNI management over words used in the independent review and whether BNI would be allowed to “spin” the study’s findings in a cover letter. Complainant took a stand against allowing this type of letter, and eventually a compromise was reached with the Assistant Manager at BNI that enabled BNI to add a transmittal letter
- 13) The EFRT identified 28 major issues, and its report was the subject of media scrutiny and Congressional interest.
- 14) From March to September 2006, BNI delayed responding to, or setting up a process to respond to or resolve the issues identified by the EFRT. By September, due to pressure from DOE, BNI established a new process group titled the Process Engineering and Technology Group. This new group was supposed to have process ownership and responsibility for the process flowsheet, i.e., be the process design authority, but the BNI Engineering Manager would never relinquish ownership and responsibility to the new group.
- 15) As stated above, in late 2008 or early 2009, BNI took issue with a report issued by another site contractor, PNNL, on the issue of pipe plugging, which was raised by the EFRT group as one of its issues. PNNL engineers advocated changing the calculations model to add to the flow capacity, although at that rate of flow, many pipelines might not pass an acceptance review. This conflict in acceptance of the report has yet to be resolved as of the filing of this Complaint.
- 16) In early 2009, Complainant sent a letter to a URS Vice President identifying engineering issues and safety culture issues at Hanford. Upon meeting the new URS WTP Project Manager in about March, 2009, he stated to Complainant that he had seen the letter.
- 17) In June 2009, the BNI Engineering Manager held a meeting of key engineering-related managers and asked for issues to be submitted for review. Complainant attended this meeting and submitted about 100 issues. BNI downplayed their importance and classified them in a way that results in little action to many
- 18) In June 2009, an issue first identified in late 2003, was accepted by BNI Engineering as being a valid concern. This issue involved the precipitation (the formation of solids) of phosphates and oxalates in the feed streams to the ion exchange columns. The precipitation of these solids can significantly reduce the effectiveness and performance of the ion exchange columns which remove the radioactive element cesium. A BNI-led study recommended an equipment modification option, which would have provided for a robust solution. Through discussion and emails, Complainant encouraged BNI management to support the robust design solution and seek cost sharing with DOE. BNI management, however, overrode the Complainant and the committee and recommended the less expensive and less robust change. DOE did not accept the BNI recommendation. Also, during evaluation, in July 2009, a BNI

engineer quit the team she was assigned to rather than have her management believe she supported design changes.

- 19) In September 2009, the "M3", or mixing issue, was not resolved as scheduled. At the request of the highest DOE ORP manager, Complainant was appointed to lead the resolution effort.
- 20) In October 2009, a high ranking corporate BNI manager told Complainant that he wanted to use modeling to resolve the mixing issue (M3). Complainant insisted upon, and was successful in arguing for, the use of scaled testing rather than computer modeling.
- 21) In October, 2009, BNI management told Complainant to "throw the kitchen sink at it." This meant that any system changes needed to support the mixer changes. Complainant was told that a robust mixing design is the objective. This strategy and philosophy was conveyed to DOE.
- 22) In about November 2009, BNI again replaced the WTP project manager, the fifth manager in 8 years. The new manager is Frank Russo.
- 23) In December 2009, DOE scheduled a review with an external review team on the mixing issue (M3). Complainant advocated to DOE management that the review should be postponed since little documentation existed at that time. Complainant was overruled, and the external review team met and issued the expected criticism of the program.
- 24) In late December 2009, the DOE Federal Project Director called a special meeting to understand why the external review did not go well. Complainant explained that he was overruled by other DOE officials, which the Federal Project Director confirms.
- 25) In January 2010, BNI appointed a retiring manager to stay on and manage the M3 issue. Complainant stayed involved and provided several key contributions enabling closure efforts to proceed. The new WTP Project Manager changed the program approach to seek lower cost approaches, and stated that he will use his connections (a silver bullet) with a senior DOE official to get the issue approved by June 30 (the new deadline). Complainant questioned the change in strategy to a less robust approach. Complainant was concerned that political pressure will be applied to resolve the issue rather than a sound technical approach.
- 26) In February 2010, Complainant raised concerns when BNI modified the design approach to use different scaling parameters at different tank operating levels. Complainant was concerned that this increased safety risks and is clearly a questionable design approach.
- 27) In March 2010, unacceptable mixing test results caused BNI engineering to again change the design approach to mixing in a manner that further decreased the safety margin. This change involved only partial clearing of the bottom with each mixer pulse. Complainant again lodged concerns and was told that improved designs will be investigated in an optimization period following M3 closure.

- 28) In very late March, 2010, a DOE technologist raised a concern about the mixing of thin solutions (water-like) in tanks designed to mix thick solutions (similar to ketchup). Complainant offered to provide a technical rebuttal to this issue. On about April 8th, Complainant told BNI management that in good faith and professional judgment he cannot provide the technical basis to refute the DOE concern. This conclusion was partially a result of a calculation error made by a consultant. BNI management and the URS Deputy Manager grilled and chastised Complainant in the presence of nearly 15 people for almost an hour over his decision. The BNI Project Manager and a URS manager are both heard threatening to ruin the career of the consultant. BNI then launched a revised effort to show that no testing was needed for some of the tanks despite the lack of apparent sufficient data to support such a decision.
- 29) In May 2010, the URS Deputy Project Manager called for a meeting with only the URS employees supporting M3 and chartered a clandestine effort to prepare for a test to resolve the DOE concern raised in late March. Complainant questioned this and noted that this is in direct violation of the Earned Value Management System ("EVMS") principles by which the Project is sworn to operate. The URS Deputy Manager said in response, "he is the boss and the group should just do it". PNNL is asked to provide their recommendations on how this test might be conducted. On information and belief, the estimated cost for this clandestine effort exceeds \$150K and the test never occurred.
- 30) Between February and June 2010, the URS Deputy Project Manager stressed the importance of closing the M3 issue and the impact on careers and compensation if it is not closed. Complainant pointed out to the URS Deputy Manager that BNI leads this effort and URS is not in the position to lead closure. The URS Deputy Manager told the Complainant and another URS employee that "he is fed up with BNI Engineering, how slow they are, and their bullshit", and then named a couple BNI employees he thought should be fired.
- 31) In mid-June, two external consultants sent independent emails stating that they talked with the mixing consultant advisor to the external review committee, and it is their opinion that he has major concerns with the mixing design recommendation. Complainant sent the consultants emails, which stated, regardless what they think they heard, or what others said, the review team has accepted the BNI recommendations.
- 32) In late June, PNNL issued a report suggesting conditions and approaches for conducting a test the test referenced in item #29 above. In the report is a section that raises questions about the BNI mixing scaling approach referenced item #26 above.
- 33) On June 30, 2010, the BNI Project Manager issued an email praising everyone for meeting the closure date for the M3 waste mixing issue.
- 34) On July 1, 2010, Complainant participated in a meeting called by the BNI Technical Director to discuss open issues. The Technical Director did not attend and delegated the meeting to the BNI Chief Engineer. The BNI Chief Engineer brought cherry's to the meeting and stated to Complainant, "Maybe you will choke on the cherries" or words to that effect. Complainant provided a list of about 50 open issues along with a list of about 100 other

issues submitted a year before, most of which were still open. Others attending provide issue lists but none were as extensive as Complainant's list. The Chief Engineer attempted to minimize and dismiss Complainant's concerns. Complainant also raised the same concern he had raised the year earlier, which was that BNI should maintain one list of open issues for issue tracking; otherwise, tracking issue resolution is impossible. The BNI Chief Engineer played down his concern. The BNI Chief Engineer also contended that many of the issues presented by Complainant were not really issues. Several at the meeting disagreed with her.

- 35) At the meeting on July 1, the recommendation was made by another manager that a process hazards operations review should be conducted. It was suggested that this review would identify what issues really existed. The BNI Chief Engineer stated that the review can be done "if it is quick and short." The manager said that it will be long and tedious as it should be to be effective. The BNI Chief Engineer again repeated her words to "make it quick and short."
- 36) After the meeting, Complainant sent an email to the manager suggesting the process hazards review and offered his support; he also requested information on how he and his group can support it.
- 37) Complainant left the site about noon on July 1 planning to return for a meeting at 7a.m. the next day (a scheduled vacation day for Complainant). The purpose of the meeting was to discuss the final details of the movement of Complainant's R&T group to a new division. Complainant's group had scope (identified project work) and funding (money) for over 2 more years.
- 38) In the afternoon of July 1, on information and belief, the BNI Project Manager directed URS to fire Complainant immediately from the Project.
- 39) On July 2, 2010, Complainant arrived at work for his 7a.m. meeting, having planned for a discussion to define the final details of his group's reassignment to the new division. Instead, he was told that the topic of the meeting had changed. He is told that he is fired from the Project and directed to return his badge, phone, and Blackberry, and to leave the site immediately. Complainant returned his badge and phone which he had on him. He was told he cannot go to his office to retrieve any personal belongings. He was told he must leave immediately, talk to no one, and informed that he would be escorted out of the building.
- 40) Complainant was reassigned to a URS facility off of the Hanford site, in downtown Richland. Complainant's supervisor had lunch with Complainant shortly after he began reporting to that location and told Complainant that he would be better off simply dropping the matter, and that, "If you go to court, Bechtel is going to win." The supervisor went on to state, "If you pursue this, your longevity is in danger."
- 41) On July 16, 2010, Complainant sent a letter to the Defense Nuclear Facilities Safety Board ("DNFSB") outlining his concerns about the engineering issues and the manner in which matters relating to safety of the nuclear and chemical processes were being handled. Complainant also filed concerns with the DNFSB about his retaliatory termination.

#### IV. ADVERSE ACTIONS

- 41) After 40 years of service and over 20 years in the Environmental Management arena supporting DOE, Complainant's career has been irreparably harmed by the Respondent's illegal and retaliatory removal of Complainant from his position at URS at the WTP site, because of his protected activity.
- 42) Complainant has been threatened and warned not to pursue a claim as a result of his removal.
- 43) Complainant's career growth in the Hanford and DOE community has been irreparably harmed as a result of the Respondents' retaliatory termination.
- 44) Complainant's reputation in the community as well as his reputation in industry is severely damaged by Respondents' illegal and retaliatory actions.
- 45) Respondents' actions have caused a chilling effect on the willingness and ability of other employees at the Waste Treatment Plant to bring forth safety and engineering concerns that could impact the cost and schedule of the facility in a manner that might threaten the fees and profits of Respondents.
- 46) Complainant was subjected to a hostile working environment.
- 47) Complainant's future career was threatened, and insinuations about his physical well-being being in jeopardy were communicated to him.

#### V. CAUSES OF ACTION

- 47) Complainant's acts in reporting violations of laws and regulations and safety non-compliances, are protected activities under the Energy Reorganization Act, 42 USC sec 5851, 42 U.S.C. section 5851, the Toxic Substances Control Act, 15 USC Section 2622.
- 48) The Respondents had knowledge of the foregoing protected activity.
- 49) Respondents acted in concert to harass and terminate Complainant in a discriminatory manner, and subject him to a hostile working environment.

#### VI. REQUEST FOR RELIEF

Complainant respectfully requests the following relief from the Department of Labor:

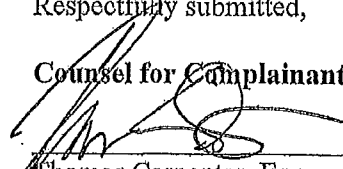
- The contractors of the WTP Project be directed to conduct periodic independent third party reviews of the Safety culture;
- The WTP Project to establish a well documented process to document all issues on a single list so that the status is readily available;

- The WTP project to establish an issue resolution process that crosscuts WTP divisions and includes the DOE;
- The prominent posting by the current contractors of the WTP Project to post in visible places and distribute to all employees individually a statement denouncing their action towards Complainant (this statement must meet the approval of Complainant);
- The contractors of the WTP project to undertake training for their management in how to prevent retaliatory actions, prevention of issue suppression, and how to prevent a chilling environment;
- Payment equal to what would have resulted from the Complainant's career plans over the next decade. This includes all benefits such as his 401K, medical, and life insurance;
- An award of damages to compensate Complainant for emotional harm and the deliberate infliction of pain and suffering;
- An award of damages to compensate Complainant for lost future wages, lost future business opportunities, lost benefits, and retirement;
- Exemplary damages so that contractors across the DOE complex understand the significance of this improper action by Respondent;
- All costs for bringing this action, including attorney fees and litigation costs; and
- Any and all such other relief to which Complainant may be entitled.

SUBMITTED this 30<sup>th</sup> day of July, 2010.

Respectfully submitted,

Counsel for Complainant

  
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JULY 30, 2010

  
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