

**Exhibit A – Declaration of Elbert Bowers and Attachments**

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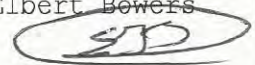
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16 GREEN ACTION FOR HEALTH FOR ENVIRONMENTAL JUSTICE

17  
18 NUCLEAR REGULATORY COMMISSION

19 IN RE: TETRA TECH, EC, INC.

20 ) DECLARATION OF ELBERT BOWERS IN  
21 ) SUPPORT OF PETITION TO REVOKE  
22 ) THE LICENSE OF TETRA TECH EC,  
23 ) INC.  
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2 I, **ELBERT BOWERS**, declare:  
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4 **Background and Work History**  
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6 1. I have been involved in the occupational radiation-safety industry since 1978. My  
7 experience within the industry has been diverse and I have been assigned to many worksites,  
8 including Department of Energy facilities, commercial nuclear power plants, and regulated  
9 environmental remediation and reclamation projects. I started at the Oconee Nuclear Power  
10 Station as a trainee. I completed Health Physics trainee "entry level" screening. This consisted of  
11 Health Physics fundamentals and classwork that lasted approximately six months. It was  
12 followed by in-depth Health Physics theory addressing, in part, ionizing radiation – its detection,  
13 sources and corresponding effects involving exposure to the living cell (i.e., biological risk). This  
14 training was supplemented with hands-on "in-field" exercises and additional follow-up classes  
15 within regular six-month intervals.  
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18 2. I worked my way up to becoming a Health Physics Specialist ("HP"), a process that took  
19 approximately four years. During that time, I also became ANSI 3.1-qualified. In April 1988, I  
20 gained instructor certification through the Institute of Nuclear Power Operations (INPO) to  
21 implement all aspects of Occupational Radiation Safety training programs. I gained similar  
22 certification to implement like programs at U.S. Department of Energy facilities in November  
23 1995, while assigned to the Rocky Flats Environmental Technology Site (RFETS).  
24

25 3. In addition to the aforementioned places I have worked, other tenures involving  
26 radiological work included assignments at: the Indian Point Nuclear power plant in Buchanan,  
27 New York; the Babcock & Wilcox nuclear fuel production facility in Lynchburg, Virginia;  
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1 Hartley & Hartley Landfill, Kawkawlin, Michigan; Grissom Air Force Base, Indianapolis,  
2 Indiana; Shapack Landfill, Attleboro Massachusetts; and Warren Peak Air Force Weather Station  
3 in Sundance Wyoming. Subsequently I worked at several places for New World Technology  
4 ("NWT"), a radiological safety staffing firm. (At that time, New World Environmental ["NWE"]  
5 was doing business under its corporate name, "New World Technology.") I worked for NWT in  
6 radiological roles at: Pickatinny Arsenal in New Jersey; China Lake Naval Air Station in  
7 Ridgecrest, California; and at Hunter Point Naval Shipyard ("HPNS") in San Francisco,  
8 California. After leaving NWT, I was employed by Tetra Tech EC at HPNS and finished that  
9 employment in a radiological role while assigned at Naval Air Station Alameda in Alameda,  
10 California.  
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13 4. I started working for NWT at HPNS in January 2001 and became the company's  
14 Radiation Safety Officer Representative ("RSOR") in January 2004. I worked in that capacity for  
15 approximately three and one-third years. Then, on March 30, 2009, after Tetra Tech EC invoked  
16 first time use of its own NRC materials license and ceased the conduct of operations under  
17 NWT's license, I "rolled over" - with endorsement by Navy Radiological Affairs Support Office  
18 ("RASO") Lead Environmental Program Manager, Laurie Lowman - from working for NWT to  
19 working for Tetra Tech EC directly as RSOR (with technical accountability to Mr. Clifford  
20 Stephan, Tetra Tech EC's License Radiation Safety Officer).  
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23 5. During my first week with Tetra Tech EC as the RSOR at HPNS, Mr. Stephan left the  
24 company after which I assumed the dual role of Tetra Tech EC License RSO (with technical  
25 accountability to Mr. Philip Bartley, Tetra Tech EC Vice President, Environmental Safety and  
26 Quality Services). In accordance with Nuclear Regulatory Commission (NRC) mandated  
27 approval protocol, my assignment as Tetra Tech EC License RSO was reflected on the  
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1 company's amended NRC license dated July 27, 2009 (designation as the company License RSO  
2 remained in effect through December 2009, the same approximate time Mr. Bartley's Tetra Tech  
3 EC tenure ended). I held the Tetra Tech EC RSOR position at HPNS for approximately eighteen  
4 months. I had prior experience as an RSOR at the high profile Superfund site of Shapack  
5 Landfill, Attleboro Massachusetts, and the Hartley and Hartley Landfill, Kawkawlin Township,  
6 Michigan. My responsibilities as RSOR at these sites included the accommodation of announced  
7 and unannounced NRC inspections as well as overseeing radiological activities at the projects to  
8 ensure uninterrupted licensee compliance with NRC mandated regulations, thus ensuring work  
9 was performed in a way that validated safe operations and ensuring the health and safety of the  
10 project staff, the general public and the environment.

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13 6. During the time I worked at Hunters Point Shipyard I had multiple concerns pertinent to  
14 radiological safety. They included safety oriented concerns centered around: Tetra Tech EC's  
15 ever worsening "production over safety" work culture; willful use and retention of unqualified  
16 and/or under-qualified workers; improper use of the Portal Monitor; and numerous incidents  
17 where I became aware that NRC license compliance was, at the very least, compromised and  
18 potentially violated. I have since learned to my dismay that the concerns I had were but the "tip  
19 of the iceberg" for I was not aware of the rampant radiological frauds that were being directed by  
20 the Tetra Tech EC management and supervisors with whom I worked.  
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#### 24 **Tetra Tech EC's Work Culture**

25 7. My most serious concern that I had while working at Hunters Point with RAD work  
26 practices involved the work culture of key construction oriented Tetra Tech EC "decision  
27 makers" – persons in upper level project management roles at HPNS. In order to comply with  
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1 NRC Form 3 and Materials License mandates, I found myself routinely obligated in ever  
2 increasing frequency to bring concerns about RAD safety shortcomings to Tetra Tech EC's top  
3 on-site managers, William "Bill" Dougherty, the Construction Project Manager, and Dennis  
4 McWade, the Construction Project Superintendent. However, over the course of my  
5 employment tenure under Tetra Tech EC, both Dougherty and McWade demonstrated a "profit  
6 driven production first" mentality adversely impacting, with increasing frequency, almost every  
7 radiologically-oriented project operation at the expense of basic radiological safety. I initially  
8 thought that these Tetra Tech managers simply displayed radiological incompetence which firm  
9 and assertive corrective actions on my part would easily correct. Instead, over the course of my  
10 last months as a Tetra Tech EC Hunters Point employee, I became more and more convinced that  
11 the underlying "envisioned" production needs of the Construction Department overrode proper  
12 radiological practices. The Construction Department for Tetra Tech EC viewed NRC regulated  
13 requirements and the HPs who enforced them as impediments to production at Hunters Point.  
14 Dougherty and McWade didn't respect the HPs professional responsibilities or authority. I  
15 observed that the example of Dougherty and McWade created an unhealthy "trickle down" effect  
16 as to how other Construction Department staff treated HPs in the field. I was aware that HP's  
17 were instructed to speed up work in order to meet production schedules or otherwise be viewed  
18 as willfully contributing to project cost overruns and subject to threat of termination.

19 8. Tetra Tech EC's poor safety culture was further enabled by dictating the preferential hire  
20 of unqualified HPs, as further detailed below, who were pliable and willing to be coerced into  
21 doing – right or wrong - what the Construction Department dictated as opposed to standing up to  
22 them and insisting that all rad work be done compliantly and in accordance with Tetra Tech EC's  
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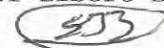


1 NRC issued license and supporting project RAD safety procedures, despite any potential delays  
2 in production.

3 9. Also as a result of Dougherty and McWade's attitude was a gradually implemented  
4 culture of deception. I didn't know it at the time, but I have since been informed by former HPs  
5 at Hunters Point that the Tetra Tech EC HP supervisors had an "early warning system," under  
6 which they were alerted when I would leave my office and go out to the field. Thus alerted, the  
7 supervisors, in particular Justin Hubbard and Stephen Rolfe, insured non-compliance and  
8 obvious cheating on rad practices ceased, at least until I went back to my office.  
9

10  
11 10. In addition to the early warning system, I discovered during the last few months of my  
12 Hunters Point tenure that the Construction Department kept me "out of the loop" of some of the  
13 places and times RAD work was being done. This was occurring despite the fact that, to ensure  
14 the safe and compliant conduct of all RAD work performed under Tetra Tech EC's NRC license,  
15 communication to me or my designee of such planned work was first required. As further  
16 described below, I only discovered such work was taking place by conducting RAD-safety  
17 integrity checks throughout the shipyard at various times of the day, including after-hours. I  
18 suspect that despite my efforts RAD work was conducted that I was never informed of, or  
19 discovered.  
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22 11. Looking back, I realize that safety culture expectations suffered when the nature of Tetra  
23 Tech EC's contract with the Navy changed. The contract transitioned from a time-and-materials  
24 contract to one with a firm fixed-price in 2009. See, Attachment 1, as an example of the firm  
25 fixed-price contract formats that were used from 2009 on, a June 24, 2011 Scope of Work  
26 Contract issued by the Navy. Under the time-and-materials contract, there was no financial  
27 incentive to cut corners as Tetra Tech EC was paid for its actual costs plus a percentage for  
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1 profit. However, under the firm fixed-price contract, there was an incentive to cut corners; profit  
2 was maximized by cutting costs, speeding up production, and finishing up as far ahead of  
3 schedule as possible. So, for example, costs were cut by laying off HPs. In fact, after the firm  
4 fixed-price contract model was instituted, 2 of the 3 HP slots that were designated to report to me  
5 for miscellaneous "Basewide" support purposes (i.e. NRC license compliance oriented  
6 confirmatory surveys of all Radiologically Controlled Areas not actively worked,  
7 incoming/outgoing Portal Monitor surveys, etc.) were eliminated beginning in January 2011.  
8

9 12. Costs could also have been more substantially cut by cheating on various RAD  
10 remediation processes. I was not aware of the RAD fraud at the time. I have learned from the  
11 *Investigation Conclusion Anomalous Soil Samples at Hunters Point Naval Shipyard* report, as  
12 well as the admissions by Anthony Smith and others, that widespread fraudulent cheating on soil  
13 samples, scanning, and remediation was done. This scheme of RAD fraud dramatically reduced  
14 costs to Tetra Tech, increased the profits to Tetra Tech, and potentially allowed RAD  
15 contamination above release criteria to remain on Hunters Point and to be shipped off Hunters  
16 Point as non-rad soils, threatening the health and safety of untold numbers of people for eons to  
17 come.  
18

19 13. After the contract changed, I noticed more frequent RAD-oriented discrepancies, going at  
20 first from one incident every 6 weeks or so that I discovered, to one every 2 weeks, to upwards  
21 of one or more a week. I have since learned after my removal from Hunters Point that dramatic  
22 and systematic RAD frauds were engaged in that were kept secret from me by Tetra Tech EC  
23 management and others.  
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25 14. The incentives that accompanied initiation of the firm fixed-price contracting model  
26 explain, in large degree, the deterioration of Tetra Tech EC's safety culture and the  
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1 accompanying RAD fraud. Based on my experience, following proper radiological procedures  
2 often results in production delays (e.g., a series of excavation steps that typically take 15 minutes  
3 for a heavy equipment operator to complete may, instead, take upwards of 45 minutes for the  
4 same steps if subject to radiological controls due to the plethora of monitoring intervals expected  
5 of HP safety personnel).

7 15. Eventually, after months of escalating "cooperative teamwork" difficulties with Tetra  
8 Tech EC's on-site construction management, I felt overarching pressure by Bill Dougherty, the  
9 Tetra Tech EC Construction Project Manager to "look the other way" – even though ever more  
10 bizarre RAD safety irregularities persisted. The situation reached its peak for me on the morning  
11 of January 13, 2011 when Dougherty angrily threatened to have my name "removed" from the  
12 license, then - in what remains the one and only such scenario of its kind encountered in my 30  
13 plus year professional career - followed up with shouted demands that I immediately remove  
14 myself from the project along with my personal belongings. This was the treatment I endured  
15 while adhering to the federally protected obligations and mandates of NRC Form 3. I was trying  
16 to apprise Dougherty of the most recently-discovered compliance concerns of adverse impact to  
17 Tetra Tech EC's NRC license.

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22 **Tetra Tech Did Not Correct RAD Fraud That Resulted In Release Of RAD**  
23 **Contaminated Soil To The Public**

24 16. When I began working at Hunters Point in 2001, and for some years thereafter, a major  
25 focus of Navy radiological cleanup protocol and the work of Tetra Tech – referred to as  
26 "characterization" or "investigative" assessments - was to survey buildings and areas of Hunters  
27 Point to try and determine whether an area or building was "impacted" (meaning elevated  
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1 readings of the building or area confirmed the probable presence of radiological contamination  
2 above release criteria levels established by the Navy and regulators). Because buildings and  
3 structures were the primary focus of Navy contract awards in the early years, there was not yet a  
4 significant priority at that time placed on extracting contaminated soils from Hunters Point and  
5 remediating that soil (e.g., pursuing efforts to remove the radiological contamination from the  
6 soil so that the soil left behind no longer posed a health hazard to workers, the public, and the  
7 surrounding environment.)  
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9  
10 17. In the mid-2000's, the Navy began to release contract awards for work to assess  
11 potentially RAD contaminated soil impacted areas of the shipyard, and remediate any  
12 radiologically contaminated soil where confirmed to exist. One process used for the purpose of  
13 soil remediation at Hunters Point in 2006 involved the staging and use of conveyor belt  
14 hardware. Working under two separate Navy awards, extracted soils originating from the  
15 Hunters Point Installation Removal – 02 (aka: "IR-02") and the PCB Hot Spot areas of Parcel E  
16 were staged to go through conveyor belt systems. Strategically positioned directly above each  
17 conveyor belt was a set of twelve radiation detectors that were connected to a computer system.  
18 Each computer was equipped with software featuring real-time RAD count rate detection  
19 displays and corresponding alarm indicators to alert system operators of RAD-elevated  
20 anomalies and RAD contamination when present. The soil to be processed was to be verified as  
21 non-saturated (from rain, etc.) and placed on the conveyor belt at a thickness of no more than 6  
22 inches. The soil was then to be moved at a slow, established monitoring rate, under the radiation  
23 detectors. If the detectors sensed RAD-elevated anomalies, i.e. radiological contamination,  
24 above a naturally occurring "background" radiation intensity level, the sensors triggered an  
25 alarm. Once the alarm was sounded the conveyor belt was to stop. A manual survey of the soil  
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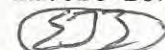


1 was to then be performed and the contaminated soil was to be removed from the belt and placed  
2 in low level radioactive waste containers. Containers in which rejected soils were placed would  
3 then be securely staged until arrangements were in place for a low level radioactive waste  
4 shipment from Hunters Point to one of the four federally approved low level radioactive waste  
5 disposal sites in the United States.

7 18. The soil from Parcel E that was being processed by the conveyor belt systems at that time  
8 also had other forms of contamination, such as oils and PCBs. Because of the parallel existence  
9 of non-RAD oriented contaminants, waste soil that was cleared of RAD concerns was to be  
10 shipped off Hunters Point to third parties that receive such chemically impacted soils. Although  
11 NWT and Tetra Tech were not the shippers of that soil, I understand that the final disposition of  
12 waste soil designated as non-RAD that was shipped off Hunters Point generally involved  
13 disposal nearby in Northern California.

15 19. Tetra Tech, as the construction company, had control over the conveyor belt system for it  
16 was considered construction based equipment. NWE RAD HPs were not permitted to change,  
17 adjust, or handle the conveyor belt processes. In particular, NWE RAD HPs were not permitted  
18 to adjust the conveyor belt speed. The conveyor belt speed was controlled by Tetra Tech EC  
19 management. There was no standard operating procedure of set frequency to check the belt  
20 speed, or any directives to check the belt speed at all. NWE HPs did have authority over the  
21 radiation detectors and the alarm used in the conveyor belt system for those sensors and the  
22 alarm specifically related to remediation of the RAD waste.

25 20. For months in 2005 and 2006 the conveyor belt systems ran processing thousands of  
26 cubic yards of soil, but early in the process a substantial amount of the soil was pulled as having  
27 excessively high radioactive content, and was segregated and disposed of as low level  
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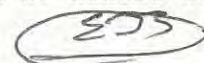




1 radioactive waste. Due to the employee time and costs related to the identification and removal  
2 of the radioactive contaminated soil through the conveyor belt system, I contacted Ulrika  
3 Messer, a Tetra Tech EC manager in San Diego who was responsible for the conveyor belt  
4 processing and this specific contract for Tetra Tech EC under Tetra Tech EC Vice President Neil  
5 Hart. I called Ulrika Messer and stated that NWE had incurred costs that equaled about 80% of  
6 the total contract allotment because of the labor time and associated expenses due to the large  
7 amount of radioactive waste that was identified and removed through the conveyor belts systems.  
8 Ms. Messer screamed at me over the phone that these costs were a very serious problem for Tetra  
9 Tech EC, and that she would have to get on her hands and knees and "crawl to (Tetra Tech VP)  
10 Neil Hart begging for more money", or words to that effect.

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13 21. I have learned through discussions with HPs, including Anthony Smith, that after I  
14 informed Ms. Messer that the soil processing through the PCB Hot Spot conveyor belt system  
15 was exhausting the funds budgeted for her project, that efforts were taken to cheat so as to  
16 increase production and decrease identification and remediation of radiological contamination in  
17 the soil. Mr. Smith informed me that Joe Levell, a Tetra Tech supervisor, substantially increased  
18 the speeds of the conveyor belts, which, in turn, compromised the previously established  
19 monitoring accuracy of the corresponding RAD detector sensors. I know that Joe Levell was a  
20 Tetra Tech EC employee who reported directly to Ms. Messer as her field lead at Hunters Point.  
21 Manipulating conveyor belt controls – including that for belt speed, was something that only a  
22 Tetra Tech EC manager was permitted to authorize, and NWE was barred from making such  
23 adjustments - including the belt speeds.

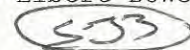
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27 22. In approximately July of 2006, HPs, who I think were Billy van Vo, Jack Schelebo,  
28 Emmitt Brown, Ray Roberson, and possibly others who worked in that operation, reported to





1 New World management that the conveyor belt systems were not being operated properly.  
2 During my tenure at the shipyard in July and August of 2006, I saw memos from Tetra Tech EC  
3 managers that stated that the belts had been run at twice the approved speeds. (See attachment 2,  
4 the August 23, 2006 email from Ulrika Messer of Tetra Tech EC to Mike Wilson, the CEO of  
5 New World, aka NWE.) In later discussions with some of the employees who worked in the field  
6 who knew how the belts operated, I was informed that the belt speeds were increased between a  
7 factor of six to nine times the approved speed. In my training and experience involving these  
8 types of radiation detectors, it is common knowledge that the detectors become much less  
9 effective when the scan speeds are increased. Based on my experience and knowledge, I would  
10 estimate that the radiation detection sensors would be nearly worthless to detect all but extreme  
11 radiation emissions at such high speed scan rates. The radiation detectors at these speeds would  
12 not be able to detect and alarm for radioactive contamination at the health and radiation safety  
13 criteria that the Navy and regulators had set for Hunters Point.  
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17 23. In the time I worked at Hunters Point I learned in and around July and August of 2006  
18 that individuals, including Senior HP Gary Wilson (who had recently been promoted into a  
19 supervisory role), were also involved in actions to intentionally cripple the conveyor belt  
20 system's ability to detect radiation. I was informed by New World project manager Dan  
21 Spicuzza that Gary Wilson, who is the brother of NWT CEO Mike Wilson, had silenced the  
22 radiation detector alarm on the PCB Hot Spot conveyor belt system. Mr. Spicuzza told me that  
23 Gary Wilson had stated when questioned, that Wilson had silenced the alarms because the alarms  
24 were going off so much that all the soil was being treated as radiologically "crapped up" and  
25 there was way too much down time (or words to that effect). Having a large amount of the  
26 processed soil deemed radiologically contaminated slowed the process down, and dramatically  
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1 increased the costs due to the steps necessary to segregate, containerize, and prepare for  
2 shipment the soil deemed low level radioactive waste. I understood from the discussions that  
3 Gary Wilson had felt pressure from Tetra Tech management to reduce the amount of soil that  
4 was removed as radioactive contamination in order to reduce costs and increase the clearance of  
5 soil as "clean" soil, and Wilson silenced the alarms as a result of that pressure from Tetra Tech. I  
6 now can only wonder if Ulrika Messer of Tetra Tech (again, the person who became so  
7 uncontrollably enraged when I advised her that the PCB Hot Spot budget had dwindled to a 20%  
8 reserve) vented as well to NWE CEO Mike Wilson (the brother of PCB Hot Spot RAD  
9 supervisor Gary Wilson), and intimidated CEO Wilson into persuading his brother Gary to  
10 increase PCB Hot Spot production using whatever means necessary. I am aware that Gary  
11 Wilson was subjected to some form of discipline for his actions in August of 2006, but he was  
12 not fired for that cheating. Months later Gary Wilson was let go because he had serious  
13 attendance and related problems. I am not aware that Joe Levell was disciplined by Tetra Tech  
14 EC at all for his deceptive act of drastically increasing the PCB Hot Spot conveyor belt speed.

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18 24. In August of 2006, I was informed and received emails that showed Tetra Tech VP Neil  
19 Hart was overseeing the response to the disclosure that Joe Levell and Gary Wilson had taken  
20 actions that made the conveyor belt system a fraud and ineffective in properly screening soil for  
21 radioactive contamination. Ms. Messer advised through e-mails and related communications that  
22 the VP Neil Hart was checking on the processes that were taken to screen the thousands of cubic  
23 yards of soil that had had been falsely screened by the conveyor belt system. I was aware that  
24 Justin Hubbard was put in charge of supervising the processing of the soil that had been  
25 fraudulently processed through the conveyor belt system. See, Attachment 2. I have learned  
26 over time after my Hunters Point tenure that Justin Hubbard was actively involved in a pattern of  
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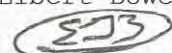


1 cheating during the radiological remediation of soil and buildings that ensued. I know of no  
2 steps taken by VP Neil Hart to have the third parties warned that the thousands of cubic yards of  
3 soil they received had been falsely screened by the conveyor belt system and were potentially  
4 contaminated with hazardous levels of radiological contamination. If Tetra Tech had wanted to  
5 give such warnings I would have to have been involved and informed due to the radiological  
6 nature of the problem. I believe Tetra Tech top management determined not to inform third  
7 parties and the government bodies to avoid having to redress the potential major health hazard  
8 the company had created by the release of radiologically contaminated soil into the public. In the  
9 five years following the discovery of the false conveyor belt scanning in July of 2006 while I  
10 worked at Hunters Point, I never learned of any information that Tetra Tech EC management  
11 changed its decision to hide the improper shipment of radioactive contaminated soil into the  
12 public. I am not aware of any information to date that Tetra Tech EC, the Navy, or any of the  
13 regulators have alerted the third parties, which may include towns, cities, and counties that  
14 received this soil, of the radiological health and safety hazard of that soil.  
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19 **Unqualified workers/willful submittal of fraudulent qualifications by staff**

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21 25. Another of my concerns centered on conformance with expected worker qualification as  
22 required by the Navy in order to work at Hunters Point as an HP. One stark example of someone  
23 in conflict with the Navy's expectation was Jane Taylor.

24 26. When a resume was submitted on behalf of someone interested in filling a vacant HP slot  
25 at Hunters Point, he or she was required to meet a minimum standard of qualification as  
26 contractually detailed in the agreement with the Navy. For the agreement between the Navy and  
27 Tetra Tech, for one to be considered for a junior HP role, a candidate had to have a minimum of  
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1 one year's experience in radiological remediation and safety prior to arriving at Hunters Point,  
2 while a senior HP candidate must have had a minimum of 3 years' experience. As for both junior  
3 and senior HPs, the Navy required that minimum experience levels had to comply with ANSI  
4 Standard 3.1. The ANSI 3.1 standard is based primarily on desired "skill set" driven experience  
5 that would involve extensive work experience in the radiological remediation and safety field.  
6

7 27. In addition to the contract requirements, I expected from my prior industry experience  
8 that some form of RAD "fundamentals specific" screening examination would be required to  
9 assess and document the baseline knowledge and skill sets of junior and senior HP candidates  
10 prior to hiring. However, I found that this was not the expectation for new hires at Hunters Point  
11 that were to work on behalf of Tetra Tech EC.  
12

13 28. Over the course of my professional career as both a RAD supervisor and Radiation Safety  
14 Officer Representative, I participated in reviewing the qualifications of potential new hires, but  
15 at Hunters Point my review of qualifications and influence in the hiring decisions were at times  
16 limited. Normally, I reviewed resumes at Hunters Point in conjunction with Mr. Bill Haney, my  
17 NWT direct supervisor, and NWT's Program Manager for Hunters Point, but that wasn't always  
18 the case.  
19

20 29. In February 2006, I received a copy of a resume for Jane Taylor from the NWT Human  
21 Resources Director, Kari Guidry. Upon reviewing it, I had serious doubts as to the veracity of the  
22 resume. Listed as Jane Taylor's only radiologically oriented tenure was prior experience as a  
23 senior HP with a company named "Taylor Made Construction." Taylor did not list any  
24 employment as a junior HP. Nor did her resume indicate that she was ANSI 3.1 qualified. From  
25 my prior job searches and my experience in the industry reviewing resumes and confirming  
26 qualification credentials, I was very familiar with the relatively limited number of companies that  
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1 specialized in RAD safety support services that would use HPs. I had never heard of Taylor  
2 Made Construction in the field, which raised an immediate red flag in my mind. I promptly  
3 shared my doubts on the authenticity of the resume by phone with Ms. Guidry. She abruptly said:  
4 "I'm H.R., you're project management. I'll do my job and you do yours – if I need your help I'll  
5 ask for it", or words to that effect. Despite my doubts about Jane Taylor's qualifications, which I  
6 attempted to address, Guidry told me that she still intended to hire Jane Taylor. I told Bill Haney  
7 about this conversation by phone and he told me "Put her somewhere with a senior where she  
8 can't hurt us, and keep an eye on her," or words to that effect. I tried to follow this direction and  
9 my own belief that Taylor was not qualified. However, in the later years due to Taylor's personal  
10 relationship with Tetra Tech EC Construction Superintendent Dennis McWade, I could no longer  
11 control the assignments of Taylor and she received special treatment by Tetra Tech management  
12 outside of my control.  
13

14  
15  
16 30. Jane Taylor was hired by New World Environmental on March 1, 2006 as a junior HP  
17 despite the doubts about her resume and her apparent lack of any legitimate prior RAD-oriented  
18 qualification - ANSI 3.1 or otherwise. In May 2006, less than three months into Taylor's initial  
19 Hunters Point tenure, Ms. Guidry informed me to my surprise that she was promoting Taylor  
20 into a vacant senior HP position which had opened at Hunters Point.  
21

22 31. On May 19, 2006, within a week of Taylor's promotion to the senior HP classification  
23 (and subsequent to being announced to the project staff), senior HP Richard Stoney stopped by  
24 my office and – obviously upset - tendered his immediate resignation. Upon attempting to  
25 identify the bases of what appeared an abrupt, emotionally driven decision, Stoney explained  
26 with words to the effect that "in good conscience", he could not "work alongside Jane Taylor"  
27 now that she was being placed "in a senior HP role" because he knew she didn't have "junior or  
28



1 senior HP qualifications” and that “the resume she submitted to New World was faked by  
2 Samantha” (Samantha Taylor, Jane Taylor’s daughter). I asked Mr. Stoney if, instead of  
3 resigning, would he be willing to discuss what he knew with Guidry. Still intent on immediately  
4 resigning, Stoney indicated that he couldn’t imagine “anything productive that could come from  
5 that,” or words to that effect. I then asked Stoney if he understood I had an obligation to convey  
6 to corporate Human Resources what he had conveyed to me, after which Stoney acknowledged  
7 that he was. Stoney permanently left the project that same day, and I relayed what had happened  
8 by phone to both Guidry and Haney. I wondered why Taylor had been promoted and so quickly  
9 for she did not have the background, training, and experience - and nothing she did while  
10 employed contradicted that she was a fraud. I heard from others over time that Ms. Taylor was  
11 involved in sexual relations with superiors at Hunters Point that might explain the favored  
12 treatment she received.

15  
16 32. As her presence at Hunters Point proceeded, I heard from another senior HP, Arthur Jahr,  
17 in the presence of New World HR Director Kari Guidry, that it did not appear Taylor knew what  
18 she was doing. For example, we were told she did not know how to use RAD scanning  
19 equipment properly, a skill any HP would be expected to have.

20  
21 33. On October 10, 2008, Taylor left Hunter Point Shipyard. She sought to return to work at  
22 Hunters Point in January of 2009. My understanding was that she left Hunters Point to seek  
23 work at the U.S. Department of Energy’s Oak Ridge Nuclear Facility (where RAD training  
24 department screening examinations are administered), but was unable to get a job there. As when  
25 Taylor first arrived at Hunters Point, I did not feel she should be re-hired because she was a  
26 fraud. However, on January 15, 2009, I received a directive from Dennis McWade, Tetra Tech  
27 EC’s Construction Superintendent, who told me that Taylor was going to be returning to work at  
28





1 Hunters Point and ordered me to have Taylor re-hired into a senior HP slot effective the  
2 following Monday. Tetra Tech was the general contractor that retained NWT, the company I  
3 worked for at the time. I stated to McWade that I would pass along his direction to New World  
4 HR to re-hire Taylor. Despite my personal thoughts about Taylor, her fraudulent resume, and the  
5 reports she did not know the job, I knew a precedent had already been set during her initial hire –  
6 the precedent was confirmed when I informed my supervisor Bill Haney, who again advised to  
7 “place her where she can’t hurt us”, or words to that effect. I was told that McWade previously  
8 had an ongoing sexual relationship with Taylor and personally witnessed that they appeared to be  
9 romantically attached. I suspected the sexual relationship was the primary reason he wanted  
10 Taylor rehired. I told McWade that there weren’t any senior slots available but McWade told me  
11 again to call my supervisor and “that HR lady” and to make sure Taylor was re-hired effective  
12 the following Monday and he would make sure there would be a senior slot opened for Taylor by  
13 that time. Despite my personal and professional reservations about Taylor’s rehire, I passed  
14 along McWade’s directive to my supervisor Bill Haney and New World’s HR Director, Kari  
15 Guidry. Taylor and McWade later got married during, per Taylor, a weekend “getaway” to Las  
16 Vegas.

17 34. The obvious favoritism shown Taylor through her hiring, promotion, and re-hire became  
18 a source of growing conflict among the HPs and Tetra Tech employees, and grew as  
19 Construction Superintendent McWade made the favoritism more obvious, such as when  
20 McWade arranged for delivery of a personal desk for Taylor next to McWade's in the  
21 Construction Superintendent office.

22 35. Upon Jane Taylor's re-hire in 2009, as the year went on I had less and less ability to have  
23 influence over where Taylor or anyone else on staff was assigned to work at Hunters Point.





1 Specific to Taylor, all reporting HP supervisors – who likewise were aware of her fraudulent  
2 qualifications – as well as her romantic connection to McWade, were asked to closely monitor  
3 Taylor's activities and performance skills while in the field and, as was passed on by my  
4 supervisor Bill Haney, continue to use her in roles "where she can't hurt us".  
5

6 36. In 2009 after I had rolled over from New World to Tetra Tech EC employment, my lead  
7 HP field supervisor, Adam Berry, informed me that Tetra Tech EC management, primarily  
8 Dennis McWade, saw to it that Taylor was assigned to work overseeing all Radiological  
9 Screening Yard (RSY) activities. McWade did not first seek my concurrence before the  
10 assignment of Taylor, and as in previous instances involving Taylor's retention for rad safety  
11 work at Hunters Point, I was not in favor of this assignment and informed my - now Tetra Tech  
12 EC direct report, License RSO Eric Abkemeier of Taylor's history and the current situation  
13 involving McWade's action. I shared with Abkemeier the prior reports from the New World era  
14 that Taylor did not know how to read a Ludlum RAD survey meter and that having difficulty  
15 with this fundamental task could present serious consequences, as such skill sets are a central  
16 prerequisite in the conduct of RSY work. Abkemeier advised that he would monitor and assess  
17 the situation. I later learned from senior HPs Archie Jackson and Susan Andrews that during  
18 this time Tetra Tech management no longer required HPs to collect soil samples at the RSY yard  
19 that would be submitted to the lab, but instead, would rely heavily on unskilled laborers under  
20 Taylor's oversight to perform this role - an act concealed from me that was occurring without my  
21 knowledge or concurrence.  
22

25 37. My concerns regarding whether the RSY soil pad work was properly being performed  
26 was increased due to the hiring of another individual that I believe was unqualified for the  
27 position, and hired for non-qualification reasons. In 2009, Tetra Tech EC hired Thorpe Q.  
28



1 Miller. I learned that I was to be the direct supervisor of Mr. Miller, but I had no involvement in  
2 his hire, contrary to Tetra Tech EC procedures. Mr. Miller was hired and installed in the position  
3 of Radiological Data Analyst that oversaw the data system for the RSY soil pad processing.  
4  
5 Miller's role included detailed work with extensive and sophisticated volumes of rad survey data,  
6 and the development of maps from such data to, in part, identify specific towed array rad scan  
7 locations for sample collection from soil pads presenting the highest probability of exhibiting  
8 radioactive contaminants. From the knowledge I gained regarding Mr. Miller and the limited  
9 skill sets he possessed, I concluded that he did not have the education, training, or experience for  
10 the position he was hired into, nor for nearly any position at Hunters Point dealing with  
11 radiological remediation and safety.  
12

13 38. I learned that Thorpe Miller was the son of Laurie Lowman, the Navy Radiological  
14 Affairs Support Office, aka: "RASO," Lead Environmental Program Manager out of Yorktown,  
15 VA - the person responsible for oversight of the RAD work at Hunters Point. I was informed  
16 that Miller had been fired from his last job and possibly criminally charged for his conduct with  
17 his prior retail store employer, which I heard was Target Stores. I concluded from the lack of  
18 education, experience, and training of Miller, and that he was the son of the key Navy  
19 representative overseeing the RAD related work of Tetra Tech at Hunters Point, that Miller was  
20 hired by Tetra Tech to curry favor with Navy RASO Lowman.  
21  
22

23 39. Throughout the time I remained at Hunters Point, I believed that Tetra Tech took active  
24 steps to continue to curry favor with RASO Lowman. For example, at the end of 2009 I was to  
25 do the performance evaluation of Thorpe Miller. I received clear pressure from General  
26 Manager Bill Dougherty to give Miller a positive evaluation. Dougherty gave me a detailed  
27 language template stating the performance achievements I was to use for the annual review. Due  
28



1 to the pressure from Dougherty I gave Miller performance ratings what I considered to be more  
2 than the most positive evaluation that his performance could have warranted, and I used the  
3 template language that Dougherty had directed. When I submitted the evaluation of Thorpe  
4 Miller to Dougherty for approval Dougherty did not approve the evaluation but required upward  
5 adjustments throughout the rating so that Miller would receive a pay raise above what his  
6 performance warranted. I did not take steps to block the upward adjustment that Dougherty  
7 directed to Miller's appraisal as the process was transferred from me to my direct report, Eric  
8 Abkemeier.  
9

10  
11 40. A few months after the performance appraisal was done, Tetra Tech Vice President Andy  
12 Bolt let me and other managers of Tetra Tech know that management of other companies  
13 working at Hunters Point or seeking work at Hunters Point raised objections to the Navy and to  
14 Laurie Lowman of RASO that the hiring of Thorpe Miller created a conflict of interest and as a  
15 result Lowman, RASO and the Navy favored Tetra Tech due to the employment of Lowman's  
16 son by Tetra Tech. VP Bolt, along with Dougherty and the owners of IO Environmental  
17 collaborated to have Miller formally "resign" from Tetra Tech, be "hired" and paid through IO  
18 Environmental as an "employee" but perform the same work for Tetra Tech, at the same Tetra  
19 Tech work desk and office at Hunters Point, to hide the conflict of interest. The resignation from  
20 Tetra Tech and immediate hire of Miller by IO Environmental was all orchestrated by VP Bolt to  
21 continue to curry favor with RASO Lowman, but hide the obvious conflict of interest. VP Bolt  
22 wrote in an e-mail of April 23, 2010 that "Thorpe's resignation removes that appearance of  
23 conflict. Thorpe will be taking a job with another company, but will most likely be working as a  
24 subcontractor for us. This should provide enough layers that the appearance of a conflict is  
25  
26  
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1 removed, and will help out Laurie Lowman and us, both." I have attached a chain of emails  
2 related to the "resignation" that was orchestrated by Tetra Tech's VP Andy Bolt as Attachment 3.

3 41. Tetra Tech continued efforts to curry favor with RASO Lowman in how it treated her  
4 son. RASO Lowman knew of the health and safety risks to the workers in RAD areas at Hunters  
5 Point, knew her son did not have training or experience with radiological hazards, and she did  
6 not want to have her son, Thorpe Miller, allowed to go onto Radiologically Controlled Areas.  
7 Miller was never issued a dosimeter badge that was required of anyone entering a RCA at  
8 Hunters Point. Nearly everyone working at Hunters Point other than secretarial staff were issued  
9 dosimeters for one reason or another as part of the job. Tetra Tech increased the efforts to curry  
10 favor with RASO Lowman by directing IO Environmental to not only hire Thorpe Miller, but to  
11 also hire the wife of Miller, the daughter-in-law of RASO Lowman, as a full-time archeologist to  
12 work at Hunters Point despite the fact that Hunters Point was virtually demolished and rebuilt  
13 during and post-World War II and as a result had little to no archeological importance. It was  
14 much more a standard practice for such projects with little obvious archeological importance for  
15 a company to contract with an archeologist to come on site if something was discovered during  
16 the project, and not to hire a full time archeologist.

17 42. I was concerned that the combination of having Jane Taylor, whose rad background was  
18 a fraud, in charge of the RSY pad surveys and processing, and Thorpe Miller, who had no  
19 relevant experience or training, put over the data from the towed array and maps used in the RSY  
20 pad work to obtain samples, would result in defective RSY remediation of radiological  
21 contamination. However, due to the clear direction from Tetra Tech management that these two  
22 people were to do these important tasks, I, nor my direct report Eric Abkemeier, were able to  
23 block the assignments. It was reported to me over the following months in 2010 and 2011 that  
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1 soil that had been cleared of radiological contamination from the RSY pads were failing the  
2 portal monitor screening at increasing rates.

3 43. Soil that had some contamination other than radiological contaminants, such as oils,  
4 PCBs, or asbestos, once processed on the RSY pads and cleared, went through a portal monitor  
5 and was shipped off Hunters Point to third-parties that would receive soil that did not have  
6 radiological contamination. Soil that did not have these other forms of contamination, once  
7 processed through the RSY pad and the samples approved by the lab, were returned to Hunters  
8 Point and used as backfill for the trenches on site. It was much less expensive for Tetra Tech to  
9 have the soil falsely cleared for use as backfill, than to have the soil repeatedly subjected to  
10 remediation of radiological contamination, and the associated time and expense of separating the  
11 non-impacted soil from portions with elevated radioactive contaminants that would have to be  
12 shipped to a low level rad waste landfill.

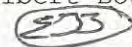
13 44. After Jane Taylor and Thorpe Miller were in positions of responsibility over the RSY pad  
14 processing, very, very high percentages of the soil removed from Hunters Point were deemed  
15 "cleared" and used as backfill into the Hunters Point trenches. For example, attachments 4 and 5  
16 to my declaration are e-mails of January 6, 2011 from Thorpe Miller. These e-mails show that a  
17 total of 1,023 cubic yards of soil were processed on the RSY pads from units 190 and 187 from  
18 Parcel UC3. The oversight of Taylor and Miller for the RSY pad processing resulted in only 10  
19 remediated cubic yards of RAD contaminated soil, or less than .01% of the soil. Having such a  
20 low level of soil remediated was a substantial cost savings to Tetra Tech under the firm fixed  
21 price contracts with the Navy.

22 45. I have had concerns regarding the qualifications of Jane Taylor and Thorpe Miller to  
23 perform their roles regarding the RSY soil pad processing. I am concerned that due to a lack of  
24



1 training, experience, skill, and commitment by these individuals that significant amounts of the  
2 soil that was used as backfill at Hunters Point was not properly screened, sampled, and  
3 remediated. I am concerned that there may be large amounts of soil used as back-fill at Hunters  
4 Point that did not meet the release criteria established by the Navy and regulators, and continues  
5 to have radiological contamination that poses a health hazard.  
6

7 46. My concerns that soils processed on the RSY pads after Tetra Tech had Jane Taylor, who  
8 the company knew was a fraud and incompetent, and Thorpe Miller, who the company knew as  
9 unqualified and hired to compromise Navy oversight of the work, and unskilled laborers  
10 performing the soil sampling on the RSY pad, would result in hazardous radiological  
11 contamination remaining in the soil that was backfilled at Hunters Point was not an academic  
12 concern. I learned that highly radioactive contamination did remain in soil processed on the  
13 RSY pad system that Tetra Tech "cleared" as free of radioactive contamination. For example,  
14 Billy van Vo had worked with NWE and had moved his employment over to Shaw  
15 Environmental, a company also performing some radiological remediation work at Hunters  
16 Point. I learned the following from Mr. Vo, and from others who learned of this situation but  
17 kept it quiet. Mr. Vo was with a Shaw junior HP on Hunters Point. The junior HP asked Mr. Vo  
18 to show him how to work a radiological scanner in the field, which Mr. Vo had and was  
19 experienced to use. Mr. Vo showed the junior HP some of the basics in the use of a Ludlum  
20 radiological detection field instrument and let the junior HP give it a try in the field. Mr. Vo and  
21 the junior HP were in an area of Hunters Point that had been trenched, and remediated by Shaw  
22 Environmental. The soil that had been used to fill the trench was largely backfill that came from  
23 the Tetra Tech managed RSY pads that Jane Taylor, Thorpe Miller, and the unskilled laborers  
24 had processed. This soil, once "cleared" by the RSY processed lab samples simply goes back  
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1 into the Hunters Point ground as backfill without any further check or scanning. The junior HP,  
2 while conducting a walk-over scan of the freshly placed trench backfill, observed that radiation  
3 readings on his instrument had suddenly jumped off scale (aka "pegged out") due to the area  
4 radiation levels being so high. When further investigating the source of the high radioactivity,  
5 Mr. Vo and the junior HP discovered what proved to be an "old generation button" of the kind  
6 used by the military decades earlier throughout Hunters Point. Radiation emissions coming from  
7 the button were so excessively high (in the milli-Rem per hour, aka mR/hr, range), that the  
8 Ludlum sensor being used was inappropriate for accurate measurement. A better, more  
9 specialized monitoring device had to be secured so precise assessment of the highly elevated  
10 readings could be gained. Radium 226 was the radioactive contaminant associated with the  
11 improperly discarded button from years past that the RSY processing failed to remove as highly  
12 elevated radioactive waste. The NRC and EPA have long recognized that radium 226 has  
13 historically existed in soils and materials throughout the shipyard at Hunters Point due to actions  
14 by the Navy, and is the most common radioactive contaminant still being discovered during  
15 clean of Hunters Point. Radium 226 is also recognized by the International Commission on  
16 Radiological Protection (ICRP headquartered in Ottawa, Canada) and the National Council on  
17 Radiation Protection and Measurements (NCRP based in Bethesda, MD) as being of the "Very  
18 High Radiotoxicity" classification. The NRC and others specializing in this field know full well  
19 there is a distinct likelihood people can die of cancer from uncontrolled exposure to radium 226,  
20 as well as many of the other thirty-three radionuclide contaminants confirmed or expected by  
21 the Navy to be present throughout Hunters Point. Blood and bone cancers lead the way as at least  
22 two of the distinct health hazards from exposure to radium 226. Young children, old people, and  
23 persons saddled with generally poor health are particularly susceptible to increased medical  
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1 issues, complications, and even death due to exposure to radium 226. Human sensitivity factors  
2 relate proportionally to radionuclide toxicity. Detrimental health effects can result if Hunters  
3 Point radionuclides of concern are absorbed through the skin, inhaled, ingested, or introduced  
4 uncontrolled into the body by like means. Radium buttons of the type Mr. Vo unexpectedly  
5 discovered, and other residual radium contaminants still present throughout the shipyard (e.g.,  
6 radium that has leached from devices and / or flaked off from old, improperly discarded,  
7 disintegrating buttons / deck markers as tiny but highly radioactive particles commingled in the  
8 Hunters Point soils) can very easily and unknowingly be absorbed, inhaled, ingested, etc if  
9 unknowingly gotten on ones hands, lips, nose, or mouth. I believe that Mr. Vo did not report this  
10 radium button incident to Shaw, the Navy or the NRC because he - like his co-workers - worried  
11 that exposing the fraudulent remediation at Hunters Point would result in loss of employment.  
12

13  
14 47. I had concerns with other workers' qualifications as well. Bryan White, for example,  
15 originally was a New World Technology employee that Human Resources Director Kari Guidry  
16 retained based on his stated willingness to fill a junior HP position although, according to  
17 Guidry, White possessed Senior HP skills. Once provided the opportunity to review White's  
18 resume, in concert with my direct report, Bill Haney, no verifiable place of prior employment  
19 could be confirmed through which White's claimed RAD experience was gained. Despite my  
20 doubts about his work history, White was hired as a junior HP on May 27, 2008. As was the case  
21 with Jane Taylor's fast ascension from the junior to senior HP category, White was promoted to  
22 a senior HP position less than 12 weeks later, on August 11, 2008.  
23

24  
25 48. Just before my Tetra Tech employment in March 2009 – and without my involvement or  
26 input, White resigned his New World position on February 20, 2009 to immediately "roll-over"  
27 as a Tetra Tech EC hire. (White would later be assigned to my staff as a Tetra Tech EC  
28



1 employee with direction later given to me by Bill Dougherty that White would be the lead RAD  
2 HP supervisor). Bill Dougherty, Tetra Tech EC's Construction Project Manager made the  
3 decision to hire White and, contrary to license protocol, I was not consulted. As the designated  
4 Project RSO (and NRC license RSO at the time), I should have been consulted to check that his  
5 qualifications complied with Tetra Tech EC's minimum position-oriented requirements as well  
6 as those listed in the Navy contract. As the potential direct supervisor of White, company  
7 procedures provided that I was to be involved in the hiring decision. Taking into consideration  
8 details from White's resume and prior experience, still not verifiable, I believed White was not  
9 qualified to adequately perform the level of RAD supervisory work expected of him, and I would  
10 not have given my approval to the hire and promotion of White to a RAD supervisor position for  
11 Tetra Tech at Hunters Point.  
12

13  
14 49. During the following months, the performance of Bryan White evidenced deficits in his  
15 skill, knowledge and abilities as a RAD supervisor. When annual performance reviews were to  
16 be done at the end of the year I was tasked with developing the performance review for the RAD  
17 supervisors, including White. When Bill Dougherty reviewed the draft performance evaluation I  
18 did for White, Dougherty went to my computer and he personally changed the performance  
19 evaluation and ratings to significantly increase and improve the ratings for White. Bill  
20 Dougherty's changes to the performance appraisal were done to falsely depict the performance of  
21 White and to promote White upwards 2 full pay scales to the level experienced RAD supervisors  
22 were receiving at Tetra Tech EC. I did not agree with the conduct of Dougherty or the changes  
23 he made to the performance evaluation of White. I discussed the circumstances with my Tetra  
24 Tech EC direct report, Eric Abkemeier, who finished White's appraisal process in coordination  
25 with Dougherty (retaining the excessive performance ratings for White). Dougherty conveyed his  
26  
27  
28





1 expectation as well that White be designated as acting project RSO representative when I was  
2 away from Hunters Point - which I felt was contrary to White's lack of experience and  
3 competence (an event during which Abkemeier's involvement also became necessary).  
4

5 50. I also had questions about the qualifications of Tina Rolfe, who was hired as a senior HP.  
6 She was married to Steve Rolfe, a senior HP and he was later a RAD-safety field supervisor for  
7 New World Environmental, then as a Tetra Tech EC employee (RAD safety field supervisor). I  
8 believe Tina Rolfe was hired based on favouritism and her relationship with her husband, as well  
9 as the fact that her brother-in-law Jeff Rolfe and his wife were also employed to work at Hunters  
10 Point.  
11  
12

### 13 **Portal Monitor**

14 51. The Navy required Tetra Tech EC to use a radiation-detection sensing Portal Monitor to  
15 screen vehicles designated for load carrying purposes (e.g., dump trucks, etc.) entering and  
16 leaving the shipyard to insure they were not carrying radioactive contaminants onto, or off the  
17 facility. The Portal Monitor was equipped with an alarm that activated if the sensors detected  
18 radiation at a level above the "natural background radiation" clearance standard. The procedure  
19 when a truck set off the alarm was to have the truck go through the Monitor again. If it failed two  
20 out of three passes, the truck's load was required to remain on the shipyard for further  
21 investigation of the source of the radioactive contamination alarm.  
22  
23

24 52. A troubling event involving the Portal Monitor took place in early April 2009, the first  
25 week after I transitioned from employment as New World Environmental's RSO representative  
26 to becoming a Tetra Tech EC employee in the same RSO representative capacity. At the end of  
27 the day, management staff gathered in the project conference room - including Tetra Tech EC's  
28

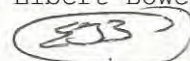


1 HP supervisors (Adam Berry, Bryan White, Justin Hubbard, and Steve Rolfe) to conduct a  
2 debrief specific to the day's activities. After one of the daily debriefs, Adam Berry came to my  
3 office looking very frustrated and worried. He told me that Dennis McWade, Tetra Tech EC's  
4 Construction Superintendent, directed a truck to leave the shipyard despite having set off the  
5 Portal Monitor alarm. Berry said that McWade told the responding HPs to stop surveying the  
6 truck and directed the driver to go ahead and leave the site, telling the HPs that it was the end of  
7 the shift and he needed the driver to "get off the clock."  
8

9  
10 53. Berry and I went to confront McWade. He was in Tetra Tech EC Construction Project  
11 Manager Bill Dougherty's office. McWade acknowledged that he'd allowed the truck to leave  
12 the shipyard. This was but one example of many instances in which I learned and observed that  
13 McWade took steps to have things done quickly and with less expense, with disregard for  
14 radiological requirements and radiological safety. This was just one example of the Construction  
15 Department overriding proper radiological procedure in favor of a "production first" attitude.  
16  
17

### 18 **Changing Analytical Results**

19 54. A lab technician, Neil Berrett, and a lab supervisor, Phil Smith, came to me on separate  
20 occasions with both complaining they were being asked by upper level project management  
21 consultants to "write away" laboratory analysis results by changing the results of sample  
22 analyses. In both instances, I asked if, before coming to me, they had attempted to resolve the  
23 issue directly with the consultant in question and each said they had not. I advised them that  
24 there were two options to achieve resolution. They could either pursue the matter directly with  
25 the consultant or all involved could meet with me to address the situation. Both chose not to have  
26 a meeting with all involved and myself. In later casual conversation I asked about the situation  
27  
28





1 and understood that the matter was resolved. I did not learn the specifics of what lab analysis or  
2 data were written away or changes as they indicated. Since my termination from Tetra Tech,  
3 however, I have learned of numerous instances in which lab results were ordered destroyed, and  
4 other improper lab related conduct. Incredibly, and on a personal level, I have also come to  
5 realize that employees who reported and resisted improper practices, including myself, were  
6 fired. I now wonder if these two individuals chose not to pursue correction of the lab issues they  
7 raised in order to remain employed at Hunters Point.  
8  
9  
10

### 11 **Concerns Raised During Field Safety Checks**

12 55. Part of my work as the Hunters Point project RSO representative (and, on occasion,  
13 Tetra Tech EC's License RSO) was to do a daily field check to see if there was anything going  
14 on contrary to license compliance and to make sure all Radiologically Controlled Areas, or  
15 RCA's, were secure at the end of the day. During those field checks I noticed many times that  
16 license requirements were not respected – so much so in the months prior to me being removed  
17 from the project at Hunters Point, that I found myself constantly pondering why someone at my  
18 level was discovering such obvious deficiencies that should have been caught/corrected well in  
19 advance of identification by me.  
20  
21

22 56. Some of the conditions I noted were dangerous. Building 217 was used to store  
23 radioactive waste commodities (subject to NRC license controls) prior to being transported off  
24 the shipyard. On or about March 17, 2010 after the field crews had left for the day and I was  
25 doing my "end-of-day" RAD integrity field check, I discovered that RCA posted Building 217  
26 had been left unsecured. We had a recurring problem with trespassers at the shipyard and they or  
27 anyone else could have gained unimpeded access to the radiologically controlled interior  
28





1 portions of the building and come in contact with radioactive material stored inside and subject  
2 to controls dictated by Tetra Tech EC's NRC materials license.

3 57. On two other occasions, I discovered similar problems at Building 217. On or about  
4 March 23, 2010 I found the building unsecured; a padlock on the latch used to secure the front  
5 sliding door was left open. On April 23, 2010, I again found the building unsecured; a window  
6 was propped open and a table was underneath it outside of the building, an open invitation for  
7 unauthorized people – in particular trespassers referred to as "Copper Miners" - to go inside.  
8

9 58. Unsecured areas were not only a problem at Building 217. On December 20, 2010, for  
10 example, I noticed that the lock was not secured at Radiation Screening Yard 4, or "RSY-4" in  
11 Parcel E; nor was the lock secured at the Utility Corridor work area gate.  
12

13 59. Twice, on or about November 18, 2010 and again on January 18, 2011, I discovered  
14 operative employee drinking water stations improperly staged inside a conspicuously posted  
15 Radiologically Controlled Area ("RCA"), in violation of the clearly posted prohibition of eating  
16 or drinking within an RCA. The first time, I noted that the corresponding RAD posting sign had  
17 also been tampered with. On both occasions, the ropes delineating the RCA had been improperly  
18 repositioned - and without authorization. The second time, I was accompanied by Eric  
19 Abkemeier, Tetra Tech's license Radiation Safety Officer ("RSO"), my direct technical report.  
20

21 60. On several occasions I discovered work going on that, as project RSO representative, I  
22 should have been informed about before its initiation, but wasn't. For example, sometime in  
23 2009, within what was called the "700 Triangle Area," I pointed out to Bill Dougherty and  
24 Dennis McWade some sections within the area that had highly elevated RAD-soil contaminants,  
25 which I knew of from prior work experience associated with the "open field" area - work  
26 suspended by RASO immediately after the contaminated area was discovered. Despite the fact I  
27  
28



1 informed them of the RAD contaminants present, I noticed some days later there was intrusive  
2 soil movement activity going on in this location – again something I had “stumbled upon” – and  
3 likewise, without prior notification that such an activity was about to begin.  
4

5 61. On March 18, 2010 while doing my “end-of-day” RAD integrity field check, I found  
6 indications of intrusive activity having occurred earlier that day (in radiological terms, “intrusive  
7 activity” refers - in this instance, to “impacted area” earth movement during construction of an  
8 alternate access road throughway). The work was taking place in a Parcel E area posted for  
9 radiological controls. The objective was to construct a temporary access throughway to be used  
10 by the University of California, San Francisco, which had (and still maintains) a facility on the  
11 shipyard. A temporary throughway was necessary because the existing entrance was going to be  
12 dug up and become impassable during upcoming sub-surface “utility corridor” RAD  
13 characterization and remediation work Tetra Tech EC was doing for the Navy. This was a new  
14 work area activity and during the afternoon debrief that same day, McWade, when asked if he  
15 had anything to share, said nothing while shaking his head from side to side to indicate he had no  
16 new information to add. No one else in attendance at the debrief indicated new work was  
17 occurring in that area. I had not been informed by McWade, any of the RAD supervisors  
18 reporting to me, or anyone else that work involving the breach of a Hunters Point property  
19 boundary barricade had begun.  
20  
21  
22

23 62. Prior to starting the new work, the outermost boundary of the radiologically impacted  
24 work area extended up to portions of Hunters Point property boundary fencing – a double fence  
25 barricade separating public properties from Hunters Point Shipyard. As part of “right-to-know”  
26 communication, yellow and magenta RAD signs were posted on the inside portion of the  
27  
28

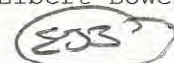


1 outermost property boundary fence – facing away from Hunters Point toward the general public  
2 side to alert that the shipyard side of the barricade was a Radiologically Controlled Area (RCA).

3 63. The site previously had a permanently installed high integrity inner and outer fence  
4 representative of clearly established boundary barricades conspicuously posted to warn of RAD-  
5 oriented hazards within. On March 18, 2010, however, contrary to the definition of a secured  
6 boundary, significant portions of both the inner and outer fence had been extracted and signs of  
7 initial “heavy equipment” earth movement were evident. Flimsy overlapping fence panels, some  
8 held together with low grade hand-twisted wire and some not wired together at all, were staged  
9 in place of the outermost barricade. Nothing was erected in place of the permanent inner fence  
10 portion now missing as well. The original RAD postings from the removed permanent fencing  
11 sections appeared to have been forcibly ripped away, with one posting now on the ground in  
12 some nearby overgrowth, and the other “dangling” from the edge of a permanent inner fence  
13 section left intact.  
14  
15  
16

17 64. Within the next day or so, Anthony Smith was assigned to the area and found sources of  
18 radioactive material located between the inner and outer property boundary fence being worked.  
19 The source was fire brick that had not been detected before Smith did his survey that day.

20 65. I was alarmed by the severity of NRC license compromise that was obviously and  
21 knowingly left un-remedied by Tetra Tech EC RAD supervisor Justin Hubbard (and each RAD-  
22 trained project employee working alongside him, and McWade). If I had not “stumbled across it”  
23 and corrected the deficiencies, I have no doubt whatsoever that had the NRC encountered exactly  
24 what I did that same day and time, serious implications would have resulted for Tetra Tech EC  
25 and its NRC license.  
26  
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1 66. Similarly, on or about June 25, 2010, I discovered after-hours work involving unimpeded  
2 access to "RAD-impacted" areas of the project site. Work was being performed by a non-project  
3 utility provider. Allowed to access the shipyard as "visitors," the service team was not under the  
4 direct escort and supervision of a RAD-safety designated Tetra Tech EC representative. The  
5 incident was occurring along Parcel E's "Utility Corridor Roadway." Unattended Pacific Gas  
6 and Electric personnel were in lift-buckets extending around and above conspicuously posted  
7 RCA work areas created by Tetra Tech EC. The Pacific Gas and Electric crews were working on  
8 overhead wiring in multiple locations. I was not advised of plans for this after-hours work to  
9 occur and, as in earlier incidents, happened to "stumble" upon what was happening. As project  
10 RSOR, once again I should have been informed so I could assess the planned activity and ensure  
11 adequate HP support had been arranged to accompany the "visitor designated" Pacific Gas and  
12 Electric crews.  
13

14  
15  
16 67. During the portion of my Hunters Point tenure while I was a Tetra Tech EC employee,  
17 increasingly disturbing discoveries of what were, simply put, purely avoidable non-compliance  
18 issues escalated, reflecting "attention to detail" lapses of the type not expected of "ANSI 3.1-  
19 designated" professionals. What I found during "in field" inspections involved, in part, the  
20 improper posting of RAD-controlled areas, most often those being actively worked.  
21

22 68. Recurring posting compromises, typically discovered during days' end "RAD integrity"  
23 field checks, were both surprising and unacceptable. Prior to leaving for the day, corresponding  
24 RAD-safety supervisors, as well as their assigned HP's, and fellow RAD-trained work crews,  
25 were personally and repeatedly reminded during morning safety tailgates to secure work areas  
26 and verify intact RAD postings at shift's end. Nevertheless, it was me, the project RSO, who was  
27  
28

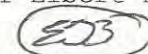




1 way too often “happening upon” these compromising conditions which – if left uncorrected,  
2 would represent a violation of Tetra Tech EC’s NRC license.

3 69. For example, on or about September 16, 2009, I noticed that the RAD posting at an area  
4 referred to as “Installation Removal 7,” or “IR-07” in the Parcel B portion of the shipyard did not  
5 compliantly reflect “right-to-know” postings warning of RAD safety hazards (for project cleanup  
6 purposes, the Hunters Point Shipyard was divided into Parcels A-G). I documented and corrected  
7 the right-to-know” compromise. In another example, I likewise discovered and had to personally  
8 correct a non-compliant RAD posting scenario on or about April 7, 2010 at Radiation Screening  
9 Yard 4, or “RSY-4”, in Parcel D.

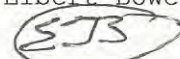
10 70. There were also instances where RAD posting “discrepancies,” and active work activities  
11 involving NRC licensees Tetra Tech EC and Shaw Environmental (a Tetra Tech EC competitor),  
12 came to be in conflict. One example occurred on December 1, 2010, when I observed heavy  
13 equipment (Shaw Environmental rentals), being used to transfer imported fill sand, entering and  
14 exiting a posted RAD “Contaminated Area” in Parcel E. More often referred to as the Installation  
15 Removal 2, or IR-02, portion of the shipyard, the activity, which was occurring without the  
16 presence of Shaw Environmental RAD-safety oversight, allowed for multiple large-capacity  
17 dump trucks to deliver “clean” import sand (originating from an offsite source) directly into the  
18 muddy, rain saturated Shaw Environmental RCA. Then the trucks exited the same  
19 “Contaminated Area” location without first being RAD-monitored for contamination of the  
20 transport tires and “foot traffic” shoe soles. Tetra Tech EC had work occurring alongside the  
21 observed Shaw Environmental IR-02 activity, inside a location referred to as the Parcel E  
22 “Triangle Area.” The “Triangle Area” was also posted as a RCA subject to radiological controls,  
23 but survey monitoring did not indicate elevated contaminants warranting “Contaminated Area”  
24  
25  
26  
27  
28





1 designation. Intersecting the Shaw Environmental and Tetra Tech EC work area RCA's was a  
2 "non-impacted" roadway (constructed with placement of a high durability liner covered with  
3 clean import sand and gravel). A critical purpose of the "non-impacted" roadway was to allow  
4 for vehicle movement (e.g., those associated with project staff transport, security patrols,  
5 management inspections, VIP "windshield" tours, RAD integrity checks, rental equipment  
6 delivery and pick up, etc.) throughout "high contaminant probability" shipyard locations with  
7 reduced risk of source contaminant transfer to vehicle tires (e.g., metal slivers in tire treads  
8 originating from rusty, deteriorated deck markers, dials, and like items haphazardly disposed of  
9 over the decades, although associated with very highly radiotoxic Ra-226 contaminants, etc.). As  
10 is industry standard, project personnel and equipment associated with "intrusive activities" inside  
11 RAD "impacted areas" at Hunters Point always required RAD clearance monitoring before  
12 crossing back into a "non-RAD impacted" area. In this situation, which was clearly incompatible  
13 with general RAD-safety practices and expected NRC licensee protocol, the referenced Shaw  
14 Environmental activity compromised established and recognized industry standards designed to  
15 reliably prevent uncontrolled RAD contaminant migration.

16  
17  
18  
19 71. There was also another example adversely impacting the same Shaw Environmental "IR-  
20 02" and Tetra Tech EC "Triangle Area" locations. In December 2010, there was a series of  
21 unusually strong winter storms bringing heavy downpours of rainwater. Beginning on December  
22 17, 2010 and continuing through about December 21<sup>st</sup>, I witnessed storm water that had  
23 accumulated in Shaw Environmental's RAD "Contaminated Area" overflowing from IR-02 onto  
24 the "non-impacted" roadway. In concert with each subsequent downpour, the storm water was  
25 "ponding" so much so that, at its peak, its mass engulfed not only large portions within the Shaw  
26 Environmental RAD "Contaminated Area" and the "non-impacted" roadway, but also consumed  
27  
28





1 adjoining surfaces extending into the Tetra Tech EC "Triangle Area" (still under RAD controls,  
2 but not with "Contaminated Area" designation). This example was clearly incompatible with  
3 general RAD-safety practices and expected NRC licensee protocol. The disintegrating conditions  
4 that resulted due to Shaw Environmental's work strategy compromised established and  
5 recognized industry standards designed to reliably prevent uncontrolled RAD contaminant  
6 migration.  
7

### 8 9 **Removal from the Shipyard**

10  
11 72. On January 12, 2011, another event occurred near "the triangle area" when I was doing  
12 my end-of-day field check. I saw two Tetra Tech trucks driving through an area with radiological  
13 concerns in Parcel E. As RSOR, I should have been aware of any activity taking place at that  
14 location, but I was not and the HP in charge of the area, Justin Hubbard, was not there to monitor  
15 the activity. The next morning I attended the regular supervisors meeting and questioned  
16 Hubbard about the finding I had made the night before. He just "blew up," verbally attacking me  
17 saying that there were not any radiological concerns at this place because this area has been  
18 downgraded. This wasn't the case. It was the culmination of increasing problems I had been  
19 finding. Bill Dougherty, the Project Manager, heard the commotion and came into the room. He  
20 sided with Hubbard and told me, "You seem to have concerns about all of this because it's your  
21 name that's on the license. I can arrange to have it removed," or words to that effect. I took this  
22 as a threat to my job.  
23

24  
25 73. Later, I went to Bill Dougherty's office and told him that if we didn't get this issue  
26 resolved, as RSOR I'd be obligated to call the NRC to notify them of the license non-  
27 compliance. Dougherty replied with words to the effect, "Call the NRC, call anyone you want,  
28





1 but while you're at it, pack your shit and get the hell off my project." I was removed from my  
2 post as Tetra Tech's RSOR at HPNS and transferred to its project at Alameda Naval Air Station,  
3 where I worked for a time before getting laid off entirely.  
4  
5

#### 6 **5-Minute Intervals Between Taking Soil Samples**

7 74. I was not aware of this at the time, but after I left Tetra Tech EC I learned that numerous  
8 chain-of-custody, or "COC," documents for soil samples claimed they were taken every 5  
9 minutes precisely. COCs stated, for example, that certain soil samples were taken at 10:00 am,  
10 then at 10:05, 10:10, 10:15 and every 5 minutes thereafter. Based on my training, experience and  
11 familiarity with the sampling procedures specified in the site's "Basewide Radiological Work  
12 Plan," I believe it was impossible to take soil samples every 5 minutes. Decontamination  
13 between sample-taking alone was likely to take far beyond 5 minutes if done properly.  
14 Decontamination under the Work Plan was a 5-step process: 1) sampling equipment was scanned  
15 using a hand-held meter; 2) the equipment would then be washed with a solution of non-  
16 phosphate detergent and water; 3) it would be rinsed with potable water; 4) it would be rinsed a  
17 second time with potable water; and 5) it would be set aside on a clean plastic covered surface  
18 and be allowed to air dry. In my experience, air drying alone could take 5 – 10 minutes,  
19 depending on the weather conditions. Had I known that COCs claimed soil samples were  
20 purportedly taken exactly 5 minutes apart, it would have raised immediate red flags that either  
21 the COCs were filled out in error, which would violate proper COC procedures, or that sampling  
22 was done fraudulently.  
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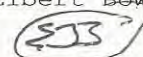
1 **Fraudulent Class 1, 2 and 3 Building Scans**

2 75. Among the projects Tetra Tech undertook at Hunters Point was one involving building  
3 surveys to be done in three stages: Class 1, Class 2 and Class 3.  
4

5 76. The contract between the Navy and Tetra Tech defined Classes 1, 2, and 3 differently  
6 from the way supervisors in the field may have used the terms. Under the contract, Classes 1, 2,  
7 and 3 were defined in large part based on information as to whether the area was known to be  
8 contaminated with radioactivity, suspected to be contaminated, or not believed to have  
9 contamination above free release levels, respectively. However, in practice, HP supervisors  
10 appear to have considered investigation of the floor and walls up to 2 meters high (or about six  
11 feet) to be Class 1, the upper walls to be class 2 and the ceiling and roof to be Class 3.  
12

13 77. I was not aware of it at the time, but since I left Hunters Point I have learned that project  
14 HPs conducted fraudulent building surveys. Senior HP Anthony Smith informed me that his  
15 supervisor, Steve Rolfe, told Smith and his survey team to forgo doing Class 2 and 3. Rather,  
16 Smith and his team were instructed to "just get some numbers and get it done." They did what  
17 they were told and reported fraudulent numbers for those surveys of record. Smith informed me  
18 that among the buildings for which he was told to "just get some numbers," I recall included  
19 buildings in the 500 series and their footprints, 351, 351A, 411, 401, 414, 406, 144, 146, 130,  
20 113, 103, 146, 521 and possibly building 203, though he's said he was not certain about that site.  
21 Anthony Smith has told me that when Smith challenged this practice, he said Tetra Tech EC  
22 RAD Safety Supervisor Steve Rolfe told him, "That's what Bill Dougherty 9Tetra Tech EC's  
23 Construction Project Manager) wants."  
24  
25

26 78. Smith also told me that HP Rick Zahensky told him that he, Zahensky, also reported false  
27 data for RAD surveillance associated with Building 707. On yet another occasion, Rolfe told  
28





1 Zahensky and Smith "just set your meter down on the ground and let it count," or words to that  
2 effect. Zahensky and Smith did so and reported the fraudulent data that resulted. I was not aware  
3 of this fraud, and not aware that the supervisors under me were following the directions of  
4 construction management, namely Dougherty and McWade. I am saddened to conclude that the  
5 HP supervisors with whom I worked effectively lied to and misled me by not informing me of  
6 these improper practices of fraudulent sampling and scanning that they were directing to be  
7 done.  
8

#### 9 10 11 **Unqualified Laborers Doing Sampling**

12 79. After I left HPNS, I also became aware that Tetra Tech EC used untrained laborers to  
13 take soil samples. This was a violation of proper procedure, as only HPs were qualified to do  
14 sampling.  
15

#### 16 17 **Complaint to the NRC**

18 80. As both a License RSO and Project RSO representative while at Hunters Point, I felt I  
19 shouldered some degree of responsibility and accountability for any violations of the NRC  
20 license and felt obligated to report it according to regulatory protocol detailed in NRC form 3. I  
21 tried to share my concerns with the NRC, which conducted a Tetra Tech EC requested  
22 "inspection" (not to be confused with investigation, and requested by Tetra Tech to trick the  
23 NRC into finding fault with me, and ignore the frauds of the company) from March 29 through  
24 March 31, 2011. After this inspection, NRC inspectors Bailey and Nicholson came to talk to me  
25 in Alameda, CA after normal work hours. They asked me about the concern I had about Tetra  
26 Tech EC's radiation safety program but they limited the meeting to about 90 minutes. This only  
27  
28






1 face-to-face meeting with NRC representatives - who appeared technically astute in rad-safety  
2 matters and proper remediation procedures, did not remotely provide a sufficient platform  
3 needed to fully capture the magnitude and depth of licensee oriented RAD-safety concerns which  
4 in my opinion continue to pose very likely, long-term, detrimental health threats to all having  
5 had a physical presence at the shipyard while fraud was committed (as well as consequential  
6 threats impacting the surrounding environment and the general public nearby). The Special  
7 Agent, whom I met with in subsequent face-to-face meetings on behalf of the NRC admitted he  
8 possessed no RAD-oriented background whatsoever. I never had the opportunity to fully share  
9 all my concerns. I tried to reach NRC officials, leaving numerous messages, but an  
10 overwhelming majority of my efforts went unanswered. I don't think the NRC took my  
11 complaints about Tetra Tech seriously, nor do I think that a real or thorough enough  
12 investigation was conducted by the NRC at that time and for the years thereafter, to the present.  
13 I understand that in June of 2016, Anthony Smith met with the NRC and explained in great detail  
14 a number of these radiological frauds addressed throughout these declarations, but the NRC has  
15 not subsequently contacted me or followed up with Susan Andrews (who I know also reported to  
16 the NRC in 2011 her concerns of similar wrongful RAD practices at Hunters Point by Tetra  
17 Tech).

21  
22 I declare under penalty of perjury that the foregoing is true and correct. Executed on

23  
24 June 17, 2017 in Six Mile, SC  
25 Date City and State

26   
27 Elbert Bowers  
28



## EXHIBIT 1

June 24, 2011 Scope of Work Contract





**DEPARTMENT OF THE NAVY**  
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST  
1220 PACIFIC HIGHWAY  
SAN DIEGO, CALIFORNIA 92132-5190

IN REPLY REFER TO:

10D0809  
RAQB0.CK  
24 June 2011

VIA E-MAIL TO: [andrew.Bolt@tetrattech.com](mailto:andrew.Bolt@tetrattech.com)

Tetra Tech EC Inc  
Attn: Andrew Bolt  
1230 Columbia St, Suite 750  
San Diego CA 92101

**Subject:** MODIFICATION 03 TO CONTRACT N62473-10-D-0809, CTO 0004, BASEWIDE  
RADIOLOGICAL SUPPORT AT HUNTERS POINT SHIPYARD, SAN FRANCISCO, CA

Please submit a fee proposal for the enclosed scope of work dated June 24, 2011. Your fee proposal must be delivered via e-mail to [cynthia.mafara@navy.mil](mailto:cynthia.mafara@navy.mil) no later than the close of business **July 11, 2011**. A Contract Negotiation Board will review your proposal and if negotiations are required, you will be contacted by telephone to set up a mutually convenient time.

This does not constitute a notice to proceed nor shall it be considered as a commitment on the part of the government. Any costs incurred prior to award of this contract task order modification cannot be reimbursed.

Your cooperation in submitting the requested information within the specified time is appreciated. If you have any questions concerning this letter, please contact Cynthia Mafara at (619) 532-0978.

Sincerely,

  
C.W. DEPEW  
Contracting Officer

Enclosure:  
Scope of Work Dated June 24, 2011



**SCOPE OF WORK  
CONTRACT N62473-10-D-0809  
MODIFICATION TO CTO-0004  
BASEWIDE RADIOLOGICAL SUPPORT  
AT HUNTERS POINT SHIPYARD  
SAN FRANCISCO, CA  
DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST  
SAN DIEGO, CALIFORNIA 92132-5190**

**DATED 24 JUNE 2011**

**SECTION 1 - GENERAL**

This Contract Task Order (CTO) **modification** is to provide Base-Wide radiological support under the Contractor's United States Nuclear Regulatory Commission (NRC) Broad Scope Radioactive Material License (RML) to enable contractors to complete both chemical and radiological removal and remediation work at Hunters Point Shipyard. Base-wide radiological support includes operating **two** Radiological Screening Yards (RSYs) that accept and process radiologically impacted soils from impacted storm and sanitary sewers removals at Hunters Point Shipyard (HPS), providing on-site and off-site radiological laboratory screening and conformation sample analysis, performing routine surveys of radiologically impacted buildings and sites, maintaining site-wide radiological postings and controls, routinely providing site specific radiological training, providing radiological support to contractors performing non-radiological work in a radiologically-impacted site, and other activities described within this SOW at the Hunters Point Shipyard, San Francisco California (Figure 1). The duration of work under this Contract Task Order is 12 months with an Option period for an additional 12 months. The Department of the Navy (Navy) Naval Facilities Engineering Command Southwest (NAVFAC SW) will administer this contract, and the Base Realignment and Closure (BRAC) Program Management Office (PMO) West will manage the Work Elements under this CTO. All references identified in basic contract remain in full effect.

**This Modification to Contract Task Order (CTO) -0004 is to extend the period of performance for Base-Wide radiological support under the Contractor's United States Nuclear Regulatory Commission (NRC) Broad Scope Radioactive Material License (RML) to enable contractors to complete both chemical and radiological work at Hunters Point Shipyard. This CTO Modification reflects a reduction in scope compared to Option 1 due to changing laboratory requirements and a smaller volume of soil expected for screening. Deletions to the original Scope of Work (SOW) are lined out. Additions to the SOW are in bold font. This Modification extends the period of performance by approximately 8 calendar months to August 31, 2012. All references and requirements in the basic contract and original SOW remain in full effect.**

- 1.1 Performance Objective (s) are to provide the Base-Wide radiological support under the Contractor's United States Nuclear Regulatory Commission (NRC) Broad Scope Radioactive Material License (RML) to enable contractors to complete both chemical and radiological removal and remediation work at Hunters Point Shipyard. The main objective(s) of this project are to provide on-site and off-site laboratory services to support expedient turnaround of survey samples and optimize remediation effort, operate the **two** Radiological Screening Yards (RSYs 3 and 4), perform routine surveys of radiologically impacted buildings and sites, maintain site-wide radiological postings, routinely provide site specific radiological training, provide radiological support to contractors performing non-radiological work in a radiologically-impacted site, and other activities described within this SOW, in order to support radiological TCRA's and investigations performed under different SOWs. The main objective of the required laboratory services is to maintain on-site laboratory services (Section 2.5.3.1) for analysis of radionuclides of concern in order to support expedient turnaround of survey samples, optimize remediation efforts, and procure and manage off-site radiological laboratory costs and services (Section 2.5.3.2). The main objectives of operation of the RSYs is to support radiological TCRA's and investigations performed under different SOWs. RSY operations in the next **8** months are projected to support Radiological TCRA activities for: (1) Parcel C sewers and storm drain removal, (2) Parcel E 500 Series buildings, sites, sewers and storm drain removals, (3) **Ship shielding range cleanup**, and (4) **Parcel E-2**.



The contractor shall obtain final approval of the work required by BRAC PMO West, Naval Facilities Engineering Command and concurrence from appropriate regulatory agencies i.e. USEPA, DTSC, CDPH, and RWQCB upon completion of these performance objective(s).

- 1.2 Background: After thorough review of the operational history of Hunters Point Shipyard (HPS) and site-specific investigation data, the Navy determined that multiple buildings and sites at Hunters Point Shipyard are radiologically-impacted and may contain residual radioactive contamination. This determination was documented in the Final Historical Radiological Assessment, Volume II (HRA) (Reference 4.2.7). Table 4-3 of the HRA lists the potential radionuclides of concern associated with the activities at Hunters Point Shipyard. The Navy is directing the current removal action under the Department of Defense Installation Restoration Program (IRP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), along with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Final Base-wide Radiological Removal Action, Action Memorandum – Revision 2006 outlines these removal actions. The Final Project Work Plan, Revision 3, Base-wide Storm Drain and Sanitary Sewer Removal outlines the procedures for removing and remediating the storm drain and sewer sanitary system for potential radiological contamination. The Base Wide Radiological Work Plan, Revision 1 outlines the procedures for surveying and remediating impacted buildings and sites for potential radiological contamination. Changes to the existing work plans and methodologies for surveying, remedial actions, and on-site laboratory performance/reporting are subject to review by the BRAC PMO and the regulators. Any new SOPs intended for use at HPS shall be submitted to the Navy for review and approval prior to use or integration with the Base-wide work documents.

## 1.1 “PRE-PROPOSAL” CONFERENCE

### SECTION 2 - WORK ELEMENTS

The work elements under this SOW are identified as follows:

- Work Element 1 – Project Management/Support/Administration
- Work Element 2 – Project Coordination and Meetings
- Work Element 3 – Project Infrastructure
- Work Element 4 – Planning Documents
- Work Element 5 – Site Support Activities

## 2.1 WORK ELEMENT 1 - PROJECT MANAGEMENT/ SUPPORT/ ADMINISTRATION

This element includes personnel and resources for the management and control of project activities, such as scoping, planning, estimating, executing, tracking, controlling, analyzing, coordinating, and closure of this project. This element also includes direct management of the project, as well as the support for administrative functions needed for successful project management.

Project management shall include coordination of the tasks in the scope work all on-going field activities at the site and responding to Navy requests for information as they occur.

Project management shall also include appropriate coordination with Navy and Regulatory cultural and archaeological resource managers should actions under this SOW fall within an area of archaeological or historical zone on Hunters Point Shipyard.

All work shall be performed under the contractor’s Nuclear Regulatory Commission (NRC) license. The contractor shall ensure that the NRC is notified of the site work at least 14 days prior to mobilization. A copy of the contractor’s NRC license shall be provided to the Navy along with approved Standard Operating Procedures. A Memorandum of Understanding shall be signed by the contractor and Navy detailing responsibilities for radioactive materials and contamination handled at the site.



Project management shall also include the detailed tracking and planning, in consultation with BRAC PMO for work execution schedules for all radiological work in accordance with early transfer schedule goals.

Invoicing shall conform to the measurement and payment items described later in this SOW. Sufficient detail shall be provided to enable Navy to reconcile the costs with the negotiated schedule of values in order to make fair progress payments. Upon request, the Navy Remedial Project Manager (RPM) or Resident/Regional Officer in Charge of Construction (ROICC) representative shall be provided with documentation that substantiates the basis of payment requests during construction.

Project Management activities are anticipated to also include the following:

- Provide Meeting minutes for kickoff meetings and meetings with Navy members and regulators.
- Provide schedule and monthly progress reports to the Navy RPM and Radiological Affairs Support Office (RASO)
- Conference calls at least once a week to update the Navy RPM and the RASO on the project status
- E-mail daily site reports when field activities are occurring to Navy RPM and RASO
- Review, approve, and track project costs and prepare financial information
- Develop and maintain project files
- Conduct administrative project close out contractual requirements
- Weekly project QA/QC meetings and meeting notes with ROICC personnel during field operations

## **2.2 WORK ELEMENT 2 - PROJECT MEETINGS**

### **2.2.1 KICK OFF MEETING**

### **2.2.2 BCT MEETINGS**

**The contractor shall attend 2 BCT meetings during the course of the 8 month period of performance.**

### **2.2.3 CONTRACTOR COMMUNICATION COORDINATION AND MEETINGS**

Project meetings also entail coordination requirements between multiple contractors and the Navy. Meetings with the Base-wide Radiological Contractor, on-site laboratory manager, CSO, ROICC, BRAC PMO, NFECSW, RASO, corresponding Remedial Project Managers and CERCLA report project managers shall be accounted for under this task. During formal contractor coordination meetings, this Contractor shall be required to provide appropriate figures and or presentations to integrate with other contractors working on site. One formal contractor integration meeting is required during the 8 month period of performance. Weekly informal meetings will be required between various contractors operating on site.

#### **2.2.3.1 COMMUNICATION**

Effective communication is the key to the success of this project. The Contractor shall assist the Navy in preparing presentations to the community to the regulatory agencies at the monthly BRAC Cleanup Team (BCT) meetings. In addition, communication with other contractors performing work at HPS is critical.

#### **2.2.3.2 COORDINATION**

Coordination with other contractors is crucial throughout this project. Coordinating efforts will be required with BRAC PMO, NFECSW, RASO, CSO, ROICC, other on-site radiological remediation contractors, base-wide transportation and disposal contractors for chemical waste streams and radiological waste streams, ongoing groundwater treatability study contractors at Hunters Point (parcels G, D-1, C, and E), the base-wide groundwater monitoring program contractor, and appropriate BRAC Cleanup Team (BCT) members for site access coordination.



The Contractor shall interact and consult with the base-wide Low-Level Radiological Waste (LLRW) disposal contractor, and other contractors performing radiological work at HPS using several methods to convey field activities, issues, and information to all interested parties. The Contractor shall:

- Coordinate with radiological remediation contractors through routine meetings.
- Produce daily Production and Contractor Quality Control Reports that will be distributed electronically with a hard copy provided to the ROICC.
- Host weekly Contractor Quality Control (CQC) meetings to be held with the ROICC and the CSO. The agenda shall describe the previous week's work and include a 3-week "look ahead" schedule.
- Be available to join the weekly conference call between the BRAC and the RASO.
- Submit a monthly progress report to the Remedial Project Manager (RPM) and Contracting Officers Technical Representative (COTR) to update costs, schedules, submittals, and accomplishments.
- Submit data concerning RSY operations to RASO, the RPM, and when appropriate, to other site contractors on a routine basis. This information shall include pad scan data, systematic and biased sample data, figures with proposed remediation, pad investigative samples, Final Status Survey (FSS) results, proposed remediation, additional trench characterization, and pipe and manhole sediment analytical results.
- The Contractor shall coordinate with the CSO and ROICC to establish soil stockpile staging areas, equipment staging areas, request HPS security passes from the San Francisco Redevelopment Agency (SFRA), identify sources of water for dust control, and identify other site requirements.
- Contractor shall arrange meetings with the on-site laboratory contractor to coordinate logistical issues, sample submission procedures, data transfer options, and reporting requirements.

## **2.3 WORK ELEMENT 3 - PROJECT INFRASTRUCTURE**

The Contractor shall provide a work environment that maintains the health and safety of working personnel at the shipyard as the Navy's number one priority. The Contractor shall maintain a health and safety program that encourages the prevention of all work-related accidents. **The previously approved Site Safety and Health Plan (SSHP) shall be updated, if necessary,** with appropriate references to work plans, Accident Prevention Plans (APPs), SSHP elements, and Activity Hazard Analyses (AHAs).

Services should be provided in accordance with the current Architectural-Engineering (A-E) Guide for A-E Firms performing services for NEFCSW.

### **2.3.1 PROCUREMENT**

This element includes personnel and resources used in the procurement of the project equipment and materials. Equipment, materials and supplies that are used throughout the fieldwork shall be procured and stored on site at a safe location. Note: Charges for procurement should be included in the cost of the equipment and materials, under the various technologies and structure elements.

### **2.3.2 MOBILIZATION**

### **2.3.3 SITE CLEANUP AND DEMOBILIZATION**

The Contractor shall perform cleanup activities during progress of the Work, at the completion of the Work, and in accordance with the Basic Contract. The Contractor shall perform periodic cleanup to keep the site and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris resulting from construction operations. As a condition precedent to final acceptance of the Work by the Government, the Contractor shall remove all waste materials, rubbish, and windblown debris resulting from construction operations. All sidewalks and streets affected by the work shall be swept clean and returned to a condition consistent with that prior to commencement of work.

Upon finishing site cleanup and receiving concurrence from a site inspection by the CSO and ROICC, the Contractor shall demobilize equipment, personnel, and facilities equipment from the site in an orderly manner.

### **2.3.4 LOGISTICAL SUPPORT**

Base-wide logistical support should include the costs associated with rental of an appropriate number of field trailers and other costs associated with general contractor field operations support (e.g. copiers, trailer utilities, etc.). Initial period of logistical support should be for **eight** months.



The Contractor shall provide and maintain administrative field office facilities at Hunters Point. Government warehouse facilities will be available to the Contractor's personnel for equipment and sample storage. The Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area.

The Contractor shall obtain the necessary permits for connections to necessary services provided by utility companies serving the project area.

## **2.4 WORK ELEMENT 4 - PLANNING DOCUMENTS**

### **2.4.1 EXECUTION PLAN**

The Contractor shall develop an Execution Plan, guidance document, detailing work procedures for executing the SOW. The Execution Plan shall be based on current and applicable Hunters Point Shipyard documents incorporating any necessary changes to the current applicable documents, appropriate Standard Operating Procedures, and Radiological Work Instructions as directed for review and approval by the Navy and federal and state regulators. The current Hunters Point Documents in which the work shall be accomplished unless otherwise stated in this SOW include the Base-wide Radiological Work Plan, Revision 1 Hunters Point Shipyard, San Francisco, CA October 2007; and the Final Project Work Plan, Revision 2, Base-wide Storm Drain and Sanitary Sewer Removal, Hunters Point Shipyard, San Francisco, California ("Base-wide Sewers and Storm Drain Work Plan"). The current Time Critical Removal Action falls under the Base-wide Removal Action Memorandum, Hunters Point Shipyard, San Francisco, California, Revision 2006. Additionally, applicable base-wide Standard Operating Procedures (SOPs), Hunters Point base work instructions, and NFECSW environmental work instructions are to be followed. The Contractor shall prepare and receive approval from NAVFAC SW Quality Assurance Officer (QAO) and the regulators for the Draft and Final Sampling and Analysis Plan (SAP) that incorporates the current Navy requirements for Field Sampling Plans and Quality Assurance Project Plans, as described in the NAVFACSW Environmental Work Instruction #2 (Review, Approval, Revision, and Amendment of Sampling and Analysis Plans).

The Contractor shall update as appropriate existing planning documents outlining their approach for completing this SOW. The Navy seeks to maintain the same approach under the current Base-wide Sewer and Storm Drain Removal Work Plan. The contractor shall perform radiological surveys and laboratory analyses as has been developed by the reference documents in Section 5. However, the Navy also seeks new and innovative approaches and efficiency gains. During the course of this SOW, the Contractor may propose alternative methods for achieving the same end state desired and execute new methods and procedures after receiving the Navy's (and BCT's where appropriate) concurrence.

As previously stated The Contractor shall develop a detailed stand alone Execution Plan providing all the necessary information and details to perform this SOW utilizing the current regulatory approved Base-wide Radiological Work Plan, Base-wide Sewers and Storm Drain Work Plan, Design Plan, and approved modifications or deviations from these Base-wide Work Plans. The Execution Plan shall also have key Contractor specific plans that shall be developed by the Contractor. At a minimum the Execution Plan shall have an Introduction, Site Description and Background, Regulatory Framework, Radiological Control Plan, Final Status Surveys, Sewer and Storm Drain System Description, Field Work Implementation, Waste Management Plan, Radiological Protection Plan, and an Environmental Protection Plan. Additional Appendices as outlined in the key elements below are also required.

#### **2.4.1.1 ACCIDENT PREVENTION PLAN AND SITE SAFETY AND HEALTH PLAN**

The Contractor shall maintain the Accident Prevention Plan (APP) and a Site Safety and Health Plan (SSHP). Updates to the current APP and SSHP shall be submitted in the formats as required by the US Army Corps of Engineers' EM 385-1-1 manual. There are overlapping elements when preparing both APP and SSHP as provided in the Army's manual. The SSHP elements that overlap with the APP elements need not be duplicated provided each safety and health issue receives adequate attention and is documented in the APP/SSHP. The title of the plan shall be APP/SSHP and shall include all elements and sub-elements, including the AHA (Activity Hazard Analysis), as stated in the manual. In addition, the contractor shall comply with the requirements of the UFGS (Unified Facilities Guide Specifications) 01 35 29 (January 2008).



The APP/SSHP shall provide a safe and healthful environment for all personnel involved as well as personnel working near the sites. Certify to the NAVFAC Southwest RPM that the Final APP/SSHP have been reviewed with each contractor and subcontractor employee prior to mobilization and start of fieldwork activities.

An *Internal Draft Final* and *Final* APP/SSHP shall be submitted according to the schedule, and will be printed under a separate cover from the Work Plan. Both the APP/SSHP shall be immediately accessible to all workers at the site at all times during the project, and copies shall be mounted on, located adjacent to the contractor's Safety and Health Bulletin on site or available in every vehicle utilized for work under this Task Order.

The contractor shall conduct an annual review of the APP/SSHP; the AHAs shall be "living" documents in that changes in the field shall be documented and added to the AHAs. The APP/SSHP shall be amended as appropriate and must be reviewed and accepted by the Navy RPM, NAVFAC Command Safety Officer, and Navy and Marine Public Health Center (NMPHC) Safety Officer.

#### **2.4.1.2 STORM WATER POLLUTION PREVENTION PLAN**

The Contractor shall prepare a project-specific SWPPP to supplement the current contractor-prepared base-wide SWPPP for sewer work performed at HPS. This shall include specific installation and maintenance of Best Management Practices (BMPs) for controlling storm water. A general NPDES storm water construction permit is not required because the activities are conducted under Section 121(e) of CERCLA. The SWPPP shall be maintained and updated as necessary. At a minimum the SWPPP shall cover the site description, Best Management Practices (BMPs) to be implemented for construction activities, BMPs to be implemented for erosion and sediment control, waste management and disposal spill responses, post-construction controls, site inspection and monitoring programs, responsible personnel, training requirements, and certifications and compliance requirements. The SWPPP shall meet the requirements of the State of California general permit for storm water discharges from construction sites. Submit the SWPPP along with any required Notice of Intent, Notice of Termination, and appropriate permit fees, via the Contracting Officer, to the appropriate State agency for approval, a minimum of 14 calendar days prior to the start of construction. A copy of the approved SWPPP shall be kept at the construction site office, and continually updated as regulations are required to reflect current site conditions.

All applicable NFECSW Environmental Work Instructions shall be followed.

#### **2.4.1.3 SAMPLING AND ANALYSIS PLAN**

The existing base-wide sampling and analysis plans (SAPs) shall be maintained and updated as necessary. The current SAP (Attachment 1) for both the Base-Wide Radiological Work Plan and the Sewer and Sanitary Storm Drain Work Plan shall be followed and may be referenced appropriately to develop any future on site support SAPs.

The Contractor shall also be responsible for producing and providing a SAP package that may be utilized and referenced by other on site radiological remediation contractors in their SAP. This package shall meet the UFP/QAPP requirements for SAPs and provide applicable on-site laboratory standard operating procedures.

#### **2.4.1.4 QUALITY CONTROL/ QUALITY ASSURANCE PLAN**

The Contractor shall maintain and update as necessary a Quality Control and Quality Assurance Plan. At a minimum the Contractor shall include:

- A description of the quality control organization, including a chart showing lines of authority;
- The name, qualifications, duties, authorities, and responsibilities of each person assigned a QC function;
- A schedule for managing submittals, testing, inspections, and any other QA function (including those of Contractors, Subcontractors, fabricators, suppliers, purchasing agents, etc.) that involves assuring quality workmanship, verifying compliance with the plans and specifications, or any other QC objectives. An outline on the courses of action for how the on-site laboratory shall perform third party review of the laboratory shall also be included. Internal review and third party review shall include inspections to verify compliance with all environmental requirements, and may also encompass air quality and emissions monitoring records and waste disposal records, etc;
- Reporting procedures and reporting format for QA/QC activities including such items as daily summary reports, schedule of data submissions, inspection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation.



#### **2.4.1.5 MATERIALS DATA MANAGEMENT**

A large quantity of data will be produced and managed to prepare the needed documentation to achieve the remedial goals at Hunters Point. The current Hunters Point “cradle-to-grave” data management system integrates all phases of the work process from the initial excavation through backfilling of the trench survey units including: lifecycle tracking of excavated material, tracking excavated pipe and manholes. The Contractor shall operate and maintain a data management system that has the ability to support multiple “current/and to be awarded” radiological remedial action contracts and task orders being performed by the different Hunters Point contractors.

The Contractor data management system should be capable and able to be used to efficiently generate routine updates for the RPM, and be able to allow the Contractor to quickly and accurately respond to data requests from the Navy, and allow the Project Manager to identify trends. The Contractor under this SOW shall provide the on-site radiological remediation contractors with analytical laboratory data associated with their projects suitable for their upload into the Navy NEDD-NIRIS database.

##### **LIFECYCLE TRACKING OF EXCAVATED MATERIAL**

Truck tickets are prepared by The Contractor’s field engineer initiating the tracking activities necessary for each truckload of excavated material going to the RSY. Each on-site radiological remediation contractor shall be responsible for bringing truckloads of excavated material to the RSY for screening and placing the truckload of material on the appropriate screening pad as directed by The Contractor. The Contractor shall ensure pertinent information related to each truckload (e.g., IR site identification (if appropriate), trench segment identification and load numbers and screen pad identification numbers and unique stockpile identification number) will be entered into the data management system on a daily basis as a component of the tracking process. The data management system will continue to track each load of excavated soil from when it is first placed on a screening pad through the scanning, sampling, and if necessary, remediation activities performed by The Contractor. If the soil is free-released, it shall be stockpiled outside of the RSY; if the soil is contaminated, it shall be disposed of as LLRW by the Navy’s radiological waste contractor. The Contractor shall communicate with the on-site radiological remediation contractors as to when each stockpile becomes available for use as backfill or whether soil is disposed of as LLRW such that the information can be duly recorded in the database. Each truckload and each stockpile shall be carefully tracked through the data management system, to enable on-site radiological remediation contractors to be able to backfill the soil generally within the same area from which it was excavated.

##### **TRACKING EXCAVATED PIPE AND MANHOLES**

Information shall be entered into the tracking database for the excavated pipe and manholes. Each pipe segment and manhole excavated shall be numbered with the associated trench segment identification number and consecutive piece number and shall be closely tracked to ensure that potentially radioactive materials are properly controlled and that each pipe and manhole are radiologically surveyed. The type and dimensions of the piping and the date on which it was excavated shall be recorded in the database as well as other relevant metadata. By using the data management system, Contractor shall be able to generate and issue accurate lists to the field of piping to be radiologically surveyed for release or disposed of as LLRW.

##### **SAMPLE CHAIN-OF-CUSTODY**

Using the data management system, the Contractor shall track all samples from the time the sample arrives at the on-site laboratory. The Contractor shall ensure that the database management system includes a chain-of-custody (COC) module that generates the sample labels and COC forms to minimizing errors. The Contractor shall use the COC module to upload COC information into the database management system on a daily basis. The COC shall include information related to the sample and collection locations. The Contractor shall work with all on-site radiological remediation contractors to ensure that the same COC form and naming convention is used for samples submitted to the on-site laboratory.

#### **2.4.1.6 ENVIRONMENTAL CONTROLS**

The Execution Plan that shall include appendices that specifically address environmental controls. These plans shall be a further refinement of the existing plans that have been successfully used to perform work at HPS for the past several years.

##### **WASTE MATERIAL MANAGEMENT**



The Contractor shall prepare a Waste Material Management Plan to supplement the current Contractor-prepared base-wide Waste Management Plan. The plan shall present waste management practices, coordination, procedures for the LLRW waste expected to be generated during the field activities.

Waste minimization practices shall be followed to reduce the volume of waste generated, stored, and removed from the site with an emphasis on recycling to the extent practicable.

#### DUST CONTROL

Contractor shall maintain strict dust control practices while performing this SOW at HPS. Of special concern is a "Community Asbestos Monitoring" station known as HV-10 in the parking lot of Building 101 near the corner of Fisher and Robinson Street. Dust control is an ongoing issue within the community and to the Navy. Contractor shall manage dust during the operation of the RSYs including the yards and the truck routes to and from the RSYs.

#### AIR MONITORING

Air monitoring shall be employed during all outdoor radiological activities. Specifically, Contractor shall:

- Install wind socks to allow the radiological supervisor to determine the prevailing wind direction and ensure proper placement of the radiological air monitoring equipment on a daily basis.
- Operate the upwind and downwind air monitoring equipment for asbestos, PM10, TSP, lead and magnesium and ensure it is operational prior to any invasive work.
- Perform air monitoring for worker safety using NIOSH sampling and analysis methodologies.
- Brief site workers on the California Air Resource Board regulation concerning "Asbestos Airborne Toxic Control Measures for Construction Sites" to comply with the substantive requirements identified in section (d) for "Road Construction and Maintenance.
- Review dust control procedures and place equipment to limit fugitive dust.

## **2.5 WORK ELEMENT 5 – SITE SUPPORT ACTIVITIES**

The Contractor shall be required to maintain appropriate radiological work area controls. Coordination efforts will be required with the Navy and other contractors on site to control access to the radiological work areas established as part of this SOW.

### **2.5.1 ON SITE CONTINGENCY WORK**

The Contractor shall provide radiological screening support to other contractors involved at HPS as directed by the Navy including field staffing of an on-site portal monitor to allow for screening of all exiting haul vehicles during normal working hours. Work shall include conducting radiological awareness briefings (minimum of 15 1-hour briefings) and development and/or modification of work instructions (minimum of 8) that shall be followed to support other non-radiological remediation contractors (minimum of 135 hours field support, 2-person team) in executing non-radiological work in radiologically impacted areas.

The Contractor shall provide radiological support associated with the planned Parcel G and E ground water remediation and monitoring being performed by other Navy contractors and subcontractors.

In addition to the requirements described above the Contractor shall provide the following under this work element:

- Surveys of incoming/outgoing equipment.
- Thermo luminescent dosimeters (TLDs) for staff and other non-radiological remediation contractors performing work in radiologically impacted areas.
- Site-wide radiological controls and postings in radiologically-impacted areas not covered by an on-site radiological remediation contractor.
- Routine radiological surveys with respect to the RSYs operations.
- Work Instructions for of site specific radiological support.
- Prepare and/or update HPS Standard Operating Procedures (SOPs)

### 2.5.2 OFF-SITE CONTINGENCY RESPONSE WORK

Costs associated with off-site contingency work shall be presented as an option separate from the base bid. The contingency response work element shall include a rapid response (as quickly as possible, but no longer than one working day from notification) to support the Navy's need to quickly assess and address off-site remedial needs. These needs are anticipated to include situation assessment and sampling for either chemical and/or radiological parameters with a rapid analytical report period and also the potential removal and stockpiling of materials as directed on a selected Navy-owned property area. Non-radiological waste disposal may also be required as parts of this task, but no radiological disposal costs are assumed with the exception of waste characterization support. Assume 2 separate response actions entailing 5 analyses for full chemical and radiological parameters (15 total), 4-hours each for a 4-person team (80 hours total), and the excavation, transportation, and storage of 150 cubic yards of materials.

### 2.5.3 ANALYTICAL LABORATORY SERVICES

The Contractor shall be responsible for procuring the following on-site and off-site laboratory services.

#### 2.5.3.1 ON-SITE RADIOLOGICAL LABORATORY

Contractor shall maintain operation of an on-site radiological **screening** laboratory to support the on-going field survey efforts and support over-all radiological operations at the site. Staffing and equipment should be balanced to support the anticipated survey sampling needs site-wide. Laboratory analyses are to be supported by a minimum of **eight (8)** gamma spectroscopy units and **one (1)** swipe sample analysis machine. The Contractor shall include all laboratory equipment and trailer rental requirements. The Contractor shall also account for archiving and storage of soil and sediment samples. For estimation purposes the contractor can anticipate a throughput of **400** gamma scans per week during the period of performance of this contract **task order modification. Some variation is expected. The laboratory shall adjust resources to maintain a 7-day turnaround time.**

- **The Contractor shall ensure that the on-site laboratory equipment is verified quarterly to maintain accuracy in screening radiological samples.**

#### SAMPLE SUBMITTAL

It is recommended that samples be submitted as a functional unit such as a complete survey unit, trench characterization, etc. This allows the lab to process the samples as a unit and the data is reported when the entire unit is complete. The following are current procedures the radiological remediation contractors used while submitting samples;

- Soil samples are submitted using a completed Chain-of-Custody (CoC) form.
- The naming convention for the samples conforms to the SAP associated with the Base Wide Radiological Work Plan (example of naming conventions provided)
- Each soil sample provided to the lab should contain approximately 1000 grams of soil.
- Each sample should be double bagged to account for damage from the field, to account for wet samples, etc.
- Both of the bags shall contain the sample ID and other corresponding info from the CoC, (date, time, mR reading)
- Submitter should note any unusual odors or site conditions, and if it is known to contain chemical contamination, asbestos, PCBs, fuel, etc. (for the safety of the lab techs)
- The lab tech on duty will sign the CoC after insuring that the samples correspond to the associated CoC
- After signing, a copy of the CoC is provided to the lab manager for tracking, inventory, prioritization, etc.

#### SAMPLE PREP

Listed below are examples of current routine sampling prep procedures to be used for comparison purposes.

- Samples are placed on a metal tray and dried in oven for approximately 2-4 hrs
- Samples with odors or other contaminants are air dried (which may extend processing time)



- Samples are run through a series of sieves, approximately 350-400 grams of soil is required to perform on site gamma spectroscopy
- Once sieved, the soil is placed into sample containers, sealed with tape, and then the mR per/hr (provided by sample submitter) and the dry weight is written on the top of the container

#### SAMPLE ANALYSIS

Listed below are examples of current routine sampling analysis procedures currently used for comparison purposes.

- Samples are processed through the lab as directed by the Navy
- The lab tech places the samples into the lead cave
- The sample ID, date, time, weight, and the tech ID processing the samples are entered into the computer that controls the gamma spec unit
- Samples are analyzed using the on site gamma spectroscopy for a 45 minute count time
- At the end of the 45 minute count time the technician reviews the report
- Based on this initial review, the technician may process the sample for an additional 90 minutes based on pre-set criteria (interference, resolution, uncertainty, etc.)
- Equipment software generates an output file for each sample analysis
- At the end of each shift, the technician prepares an report file (ASCI file) for management review

#### DATA REVIEW

Listed below are examples of current routine data review steps/procedures to be used for estimation purposes.

- Each shift ASCI report file is reviewed by the lab technician who performed the analysis, the shift supervisor, and the lab manager
- Any of these reviewers may initiate a re-analysis in an effort to provide accurate data
- Once reviewed, the data is deemed acceptable, and a PDF file of the ASCI file is created
- Both the PDF and the ASCI files are made available to the submitting contractor
- The data packages from the on site analyses are not intended, and are not sufficient, for data validation.

#### LABORATORY ANALYSIS CONTINGENCY PLAN

The Contractor shall prepare an in-house laboratory contingency plan that will document procedures used to address on-site laboratory equipment failures, disruptions in or loss of off-site laboratory services, and procedures to increase on-site production and off-site laboratory procurement if capacity modifications are requested by the Navy.

#### **2.5.3.2 OFF SITE LABORATORY SUPPORT**

**The Contractor shall procure off-site analytical services in support of the on-site screening laboratory. The off-site analytical laboratory shall be Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) certified and California Department of Public Health ELAP certified where applicable.**

- **All definitive data used in conjunction with Final Status Surveys shall be sent to the off-site laboratory**
- The off-site data shall be validated and provided electronically to The Contractors.
- The on-site lab will submit samples requiring additional analysis to the off-site laboratory for processing. **For estimation purposes, the Contractor shall assume up to 7,000 alpha spectroscopy samples will be sent off-site with a 10-day turnaround time (TAT).**
- **Further off-site analysis of other radioisotopes may be requested by the Navy RPM during the period of performance. Off-site analysis of these following radioisotopes shall constitute an equivalent number of off-site gamma spectroscopy analyses:**
  - **Gamma Spectroscopy to include Radium 226, Cesium 137, and up to 20 total isotopes Radium 226 in water**
  - **Total Alpha Radium (TAR) – screening for Radium 226 in water**
  - **Tritium**

- **Total Strontium – screening for total strontium**
- **Strontium 90**
- **Gross Alpha and Beta**
- **Isotopic Plutonium including Pu-238 and Pu-239**
- **Isotopic Thorium including Th-228 and Th-230**
- **Isotopic Uranium including U-233, U-235, and U-238**

#### **2.5.4 RADIOLOGICAL SCREENING YARD**

The Contractor shall manage and operate the **two** Radiological Screening Yards (RSYs 3 & 4) at Hunters Point. The RSYs will provide soil and material screening support for sewer removal and remedial activities as required by contractor work plans such as, but not limited to, the Base-wide Radiological Work Plan and Base-wide Storm Drain and Sanitary Sewer Removal Work Plan.

The Contractor shall be responsible for receiving materials in the RSY from other on-site radiological remediation contractors. The on-site radiological remediation contractors will coordinate with the RSY management personnel to move materials to an RSY pad for screening. The soils on the RSY pad will be surveyed and sampled by The Contractor. Once the sample results are received, The Contractor shall categorize the material as (a) radiological waste, (b) chemical waste, (c) mixed waste, or (d) on-site backfill material. For waste cases (a), (b) and (c), The Contractor shall stockpile and or load waste materials into appropriate containers, stage materials for appropriate transportation and disposal pick-up, and transfer appropriate chemical and radiological waste categorization data to the appropriate Hunters Point Shipyard transportation and disposal contractors. The transportation and disposal contractors will be responsible for providing appropriate containers and moving the materials to their staging areas. For materials cleared for use as backfill (case (d)), The Contractor shall notify the on-site radiological remediation contractor for pick-up of the material and provide all data associated with the clearance of the materials. The on-site radiological remediation contractor will be responsible for moving the material from the RSY, staging the backfill material, and using material as backfill near the excavation origin.

Turnaround time for material screening in the RSY is expected to be no longer than 15 business days from the time of receipt of materials to the time materials are requested for pick-up with corresponding data packages.

In addition to the requirement described above The Contractor shall perform the following under this work element:

- Operate **two** RSYs at Hunters Point; currently, RSY-3 contains 10 screening pads; and RSY-4 contains **24** screening pads and an equipment decontamination pad.
- Post and manage the RSYs as Radiologically Controlled Areas (RCAs) in accordance with field work documents and The Contractor's NRC license.
- Brief site workers on the California Air Resource Board regulation concerning "Asbestos Airborne Toxic Control Measures for Construction Sites." Although The Contractor shall not trigger the requirements of this regulation, we will comply with the substantive requirements identified in section (d) for "Road Construction and Maintenance."
- Maintain wind socks at each RSY to determine the prevailing wind direction to ensure proper placement of the radiological air monitoring equipment on a daily basis.
- Install upwind and downwind air monitoring equipment for asbestos, PM<sub>10</sub>, Total Suspended Particulate, lead, and magnesium to provide the Navy defensible data that no fugitive dust is being generated during RSY operations.
- Provide specific worker training on how to identify sandblast grit, bottles, jars, and/or other unidentified containers that may be found during removal actions. If found, Contractor shall immediately notify the Navy and will follow the requirements outlined in the HPS Standard Operating Procedures.
- Maintain storm water controls as identified in the Storm Water Pollution Prevention Plan (SWPPP).



#### 2.5.4.1 EXCAVATED SOIL TRANSFER

The following procedures shall be followed during the transfer of soil to and from the RSYs;

- The on-site radiological remediation contractor coordinate with The Contractor to determine which RSY will be used prior to excavation of soil and how much soil will be coming to the RSY from any one excavation area.
- The on-site radiological remediation contractor field engineer supervising the excavation will complete a truck ticket containing pertinent information related to each truckload (e.g., trench segment identification and load numbers and screen pad identification numbers and unique stockpile identification number) which will be given to the driver prior to transporting the soil to the RSY.
- All excavated soil transported to the designated RSY will be free of debris greater than 6-inches in size and no pipes or manholes will be transferred to the RSY.
- The Contractor will segregate the soil appropriately per the information on the truck tickets. In addition, excavated soil that emits odors or is stained will be noted by the on-site radiological remediation contractor field engineer on the truck ticket and the field engineer will notify the RSY contractor so that the material can be segregated prior to radiological scanning and sampling.
- Upon arrival at the RSY, the driver will give the ticket to the RSY staff who will direct the driver to place his load of soil on the appropriate of the soil screening pads.
- All trucks entering the RSY will be covered.
- The on-site radiological remediation contractor performing excavations is responsible for informing the RSY operator that no more soil will be generated from a given IR site or Work Area so that clearing operations may begin.
- The on-site radiological remediation contractor performing excavations is responsible for performing the chemical sampling of excavated soil for IR contaminants. This activity will be coordinated with the RSY contractor.

#### 2.5.4.2 RSY SCREENING PAD SURVEYS

The current typical operation of the RSYs is described in the following bullets;

- Once a screening pad is determined to be ready, surveys of excavated materials on the pads (not to exceed 1,000 m<sup>2</sup>) will be initiated. The surveys will be performed as a MARSSIM final status survey to clear the materials for reuse as backfill. The surveys will include a 100% scan of the soil surface, static readings at predetermined systematic sampling locations, and additional static readings at biased sample locations. Samples will be taken and forwarded to the on-site laboratory for analysis. The soil will remain on the pad pending receipt of sample analysis.
- The soils will only be used as backfill after Navy confirms that the results of the radiological surveys and sampling activities confirm that no contamination is present above the action levels.
- Should radioactive materials be present above the RROs in any sample collected from a RSY, The Contractor may take additional samples to better define the area for remediation of pad materials as waste. If the majority of samples indicate radioactive materials above the RROs, it may be necessary to waste the entire pad.
- The Contractor is responsible for processing the soil and receiving Navy concurrence on the release of the soil for use as backfill.
- The Contractor will stage the cleared material and notify on-site remediation contractors that it is available for use as backfill material.
- Any chemically contaminated material that is radiologically cleared, will be stockpiled on 20-mil HDPE by the RSY contractor and the RPM will be notified to coordinate handling.
- If the soil is free-released, it will be stockpiled outside of the RSY; if the soil is radiologically contaminated or designated as chemical/solid and radiological contamination, it will be disposed of appropriately by the Navy's radiological waste contractor. The Contractor will communicate with appropriate on-site contractors as to when each stockpile becomes available for use as backfill or is to be disposed of as LLRW and track on

all such information in the database. Because each truckload and each stockpile is carefully tracked through the data management system, on-site radiological remediation contractors will be able to backfill the soil generally within the same area from which it was excavated.

## **2.5.5 WASTE MATERIAL MANAGEMENT**

The Waste Management section in the Base-wide Radiological Work Plan and the Base-wide Sewers and Storm Drain Work Plan provides guidelines for waste handling. Changes to this general approach may be recommended by the Contractor but will require Navy approval before implementation. However, regulatory requirements for waste management referenced in the Base-wide Sewers and Storm Drain Work Plan may not be changed.

### **2.5.5.1 RADIOLOGICAL/MIXED WASTE**

Radiological and mixed wastes (contains both hazardous waste as defined by RCRA and its amendments, and radioactive waste as defined by AEA and its amendments) are to be properly characterized and stored for disposal. Bins required for bulk storage of radiological/mixed wastes will be provided by the Navy LLRW Program on-site waste management contractor. Coordination between The Contractor and the on-site waste management contractor will be required. Assume sampling for waste characterization will be performed by the waste management contractor. Coordination efforts with the Navy RPM, RASO, Army Joint Munitions Command (DoD LLRW Executive Agency responsible for contracting for the Navy LLRW Program) and the radiological waste contractor will be required. The Contractor will coordinate with the waste management contractor and ensure appropriate radiological waste handling procedures are conducted within their controlled radiological work area. The Contractor will prepare a waste information sheet for each waste source detailing the existing analytical information available or expected to be generated for each waste storage unit (drum, bin, etc.) as well as information on the wastes (source area, filed instrument readings, on site laboratory results, etc.). Currently procurement of the containers, manifesting, transportation and disposal is all arranged by the waste management contractor. Once waste is properly identified and placed in waste containers, it will be transferred to the waste management contractor. Pending transfer to the waste management contractor, the radiological/mixed waste is to be stored under a broad scope license authority. After transfer, it will be stored under the waste management contractor's license authority until transported to an appropriate waste disposal facility. All applicable NFECWS Environmental Work Instructions regarding low level radiological waste are to be observed.

### **2.5.5.2 NON-RADIOLOGICAL WASTES**

Waste management, characterization sampling, stockpiling, and storage are covered under this contract. The Base-wide Radiological Work Plan and the Base-wide Sewers and Storm Drain Work Plan document the difference between IRP and non IRP site soil and waste material handling processes. These guidelines remain in effect. Final off-site transportation and disposal of soil and debris wastes shall be managed under a separate base-wide chemical waste transportation and disposal contract. These efforts will be associated with non-radioactive waste generated under this SOW. All construction debris and chemical waste material are to be stockpiled or packaged in appropriate containers and staged in approved areas. Coordination efforts between the base-wide transportation and disposal Contractor, the CSO and the ROICC shall be required.

## **SECTION 3 - SPECIAL CONDITIONS**

**3.1** "Section 2912 of the FY 1994 Defense Authorization Act (Pub. L. 103-160) establishes the following preference for business located in the vicinity of base closure and alignment work:

(a) Preference required – In entering into contracts with private entities as part of the base closure or realignment of a military installation under a base closure law, the Secretary of Defense shall give preference, to the greatest extent practicable, to qualified businesses located in the vicinity of the installation and to small business concerns and small disadvantaged business concerns. Contracts for which this preference shall be given shall include contracts to carry out activities for the environmental restoration and mitigation at military installations to be closed or realigned."

DFARS Subpart 226.71 and 226.72 implement the requirements of Section 2912 of the FY 1994 Defense Authorization Act.

"Section 817 of the 1994 Defense Authorization Act ) Pub L. 103-337) authorizes the Secretary of Defense to give preference to entities that plan to hire local residents when entering into contracts for



services to be performed at a military installation that is affected by closure or management under a base closure law.”

DFARS Subpart 226.7104 implements the requirements of Section 817 of the FY 1995 Defense Authorization Act) Pub. L. 103-337). DFARS 226.7104 states:

“When planning for contracts for services related to base closure activities at a military installation affected by a closure or realignment under a base closure law, contracting officers shall consider, including, as a factor in source selection, the extent to which offerors specifically identify and commit, in their proposals, to a plan to hire residents in the vicinity of the military installation that is being closed or realigned.”

The Government hereby makes it a condition of this award that the prime Contractor shall abide by the federal laws mentioned herein. The prime Contractor shall provide an explanation of all efforts and results to award subcontracts and hire personnel within the vicinity of Hunters Point Naval Shipyard, San Francisco, California. Vicinity, as defined in this award, refers to the following three postal zip codes: 94124, 94134, and 94107.

- 3.2 All requirements of the basic contract, in addition to those specifically mentioned in this scope of work, remain in full effect and performance.
- 3.3 Minutes of regulatory agency, Navy and/or Activity meetings shall be submitted to the RPM, CS and activity Point-of Contact (POC) within ten (10) calendar days after each meeting.
- 3.4 Public Affairs – The Contractor shall not disclose any data resulting from action in this contract to the news media or public. The Contractor shall refer all press or public contacts to the Activity POC and shall notify the RPM of their actions. The Contractor may not distribute reports or data to any other source, unless specifically authorized by the Public Affairs Officer in accordance with NAVFAC Instruction.
- 3.5 Any oral directions, instructions, explanations, commitments and/or acceptances given by any government employee to the Contractor or his personnel shall not be construed by the Contractor as a scope change to this proposal scope of work. Only the Contracting Officer has the authority to issue any change in SOW to the Contractor, and scope changes shall be issued in writing.
- 3.6 The Contractor shall provide copies of all correspondence to the RPM and Contract Specialist.
- 3.7 The Contractor shall make every effort to prevent the spread of contamination or release of contaminants to the environment in accordance with federal, state, and local laws, regulations and instructions.
- 3.8 Forward all deliverables to the NFEC SW RPM. A copy of the deliverables transmittal letter shall also be forwarded to the Contract Specialist.
- 3.9 The Contractor’s cost proposal format shall be in accordance with the cost estimate format provided in Section 4 – Government Furnished Data, enclosure (1).

#### **SECTION 4– REFERENCES (LIST FEC/BRAC SPECIFIC DOCUMENTS)**

##### **4.1. GENERAL REFERENCE DOCUMENTS**

- 4.1.1. Installation Restoration Chemical Data Quality Manual (IRCDQM), NFESC, 1999
- 4.1.2. EPA Requirements for QAPP for Environmental Data Operations, EPA QA/R-5, 2001
- 4.1.3. Guidance Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, EPA 2006
- 4.1.4. DoD Quality System Manual for Environmental Laboratories, Version 4.1, April 2009
- 4.1.5. EPA Uniform Federal Policy for Quality Assurance Project Plans, March 2005
- 4.1.6. SOUTHWESTNAVFACENGCOMINST 5100.1.A of February 1995
- 4.1.7. 20 CFR 1910.120 (Hazardous Waste Operations and Emergency Response)
- 4.1.8. EM 385-1-1 Us Army Corps of Engineers Safety and Health Requirements
- 4.1.9. Manual Navy/Marine Corps Installation Restoration Program Manual

## 4.2 PROJECT SPECIFIC DOCUMENTS

- 4.2.1 Local Activity safety plans and standard operating procedure
- 4.2.2 Hunters Point Historical Radiological Assessment, Vol 2, August, 2004
- 4.2.3 Basewide Radiological Removal Action Memorandum, Hunters Point Shipyard, San Francisco, California, Revision 2006
- 4.2.4 Base-Wide Radiological Work Plan Revision 1, October, 2007
- 4.2.5 Final Project Work Plan, Revision 2, Base-wide Storm Drain and Sanitary Sewer Removal, Hunters Point Shipyard, San Francisco, California, June 2008.
- 4.2.6 Survey Unit Project Report Abstract for the Sanitary Sewer and Storm Drain Removal Project, Hunters Point Shipyard, San Francisco, California, July 2008.
- 4.2.7 Field Sampling Plans and Quality Assurance Project Plans, Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) Revision 4 October 9, 2009.

## SECTION 5- GOVERNMENT FURNISHED DATA:

### 5.1. CD ROM ENCLOSURE(S)

- (1) Project Specific Reference Documents: Hunters Point Historical Radiological Assessment, Vol 2, August, 2004, Base-wide Radiological Removal Action Memorandum, Hunters Point Shipyard, San Francisco, California, Revision 2006, Base-Wide Radiological Work Plan Revision 1, October, 2007, Final Project Work Plan, Revision 2, Base-wide Storm Drain and Sanitary Sewer Removal, Hunters Point Shipyard, San Francisco, California, June 2008. Survey Unit Project Report Abstract for the Sanitary Sewer and Storm Drain Removal Project, Hunters Point Shipyard, San Francisco, California, July 2008. Field Sampling Plans and Quality Assurance Project Plans, Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) Revision 4 October 9, 2009.
- (2) Project Drawings/Maps: Hunters Point RSY Location Map, Hunters Point Autocad dwg
- (3) Project Specifications: Laboratory Analysis On Site, and Of-Site

### 5.2. PRICING SCHEDULE

## SECTION 6 - POINTS-OF-CONTACT

Point-of-Contact	Name	Address	Phone
Lead Remedial Project Manager (RPM)	Melanie Kito, P.E. (BPMOW.MK)	BRAC PMO West 1455 Frazee Road, Suite 900 San Diego, CA 92108	Phone: (619)532-0787 Fax: (619)532-0995
Contract Specialist (CS)	Cindy Mafara (RAQB02.CK)	BRAC PMO West 1455 Frazee Road, Suite 900 San Diego, CA 92108	Phone: (619)532-0978 Fax: (619)532-0983
Activity Point-of-Contact (POC)	Mike Mentink	BRAC Field Team Caretaker Site Office (TI)	Phone: (415)743-4729 Fax: (415)743-4700
Resident Officer in Charge of Construction (ROICC)	Mel Asuncion	ROICC San Francisco Bay Area Engineering Field Activity West 2450 Saratoga St., Suite 200 Alameda, CA 94501-7545	Phone: (415)743-4721 Fax: (415)743-4700
	Shirley Ng		Office:(510)749-5939 Mobile:(510)755-5878
Radiological Affairs Support Office	Laurie Lowman	Radiological Affairs Support Office Building 1971 NWS PO Drawer 260 Yorktown, VA 23691-0260	Phone: (757) 887-7644
Quality Assurance Officer (QAO)	Nars Ancog	Commanding Officer, Attn: Code [EVR.NA] Naval Facilities Engineering Command Southwest 1220 Pacific Highway San Diego, California 92132-5100	Phone: (619) 532-2540 DSN: 522-2540 Fax: (619) 532-1195



**SECTION 7 - DELIVERABLE SCHEDULE MATRIX**

<b>Item Number</b>	<b>Deliverable</b>	<b>SOW Reference Paragraph(s)</b>	<b>RPM (# of hard copies/ electronic copies)</b>	<b>RASO (# of hard copies/ electronic copies)</b>	<b>ROICC/CS O (# of hard copies/ e-copies)</b>	<b>Regulatory Agency(ies) (# of hard copies/ disks)</b>	<b>Corresponding On Site Radiological remediation contractors (# of hard copies/ electronic copies)</b>	<b>Due Date</b>
1	Monthly Progress Reports and Schedule Updates	Section 2.1	0/1	0/1	0/1	0/0	0/0	Concurrent with monthly invoice issuance
2	Conference Call Agenda and previous call minutes	Section 2.1	0/1	0/1	0/1	0/0	0/0	1 working day prior to weekly call
3	Daily Field Reports	Section 2.1	0/1	0/1	0/1	0/0	0/0	2 working days following field activities
	Community Meeting Support Presentations/ Notes (Task 2.2.2)	Section 2.2.2	0/1	0/1	0/0	0/0	0/0	1 week prior to BCT/RAB meeting
5	Contractor Coordination/integration Meetings	Section 2.2.3	0/1	0/1	0/0	0/0	0/0	1 week prior to Integration meeting
6	Planning Documents (Drafts)	Section 2.4 (For Tasks 2.4.1.1 through 2.4.1.6)	1/1	1/1	0/1	0/0	0/0	45 days after kick off meeting
7	Planning Documents (Finals)	Section 2.4 (For Tasks 2.4.1.1 through 2.4.1.6)	1/3	1/1	0/1	10/25	0/1	45 days after issuing Draft

Item Number	Deliverable	SOW Reference Paragraph(s)	RPM (# of hard copies/ electronic copies)	RASO (# of hard copies/ electronic copies)	ROICC/CS O (# of hard copies/ e-copies)	Regulatory Agency(ies) (# of hard copies/ disks)	Corresponding On Site Radiological remediation contractors (# of hard copies/ electronic copies)	Due Date
8	La b Analytical Data Packages	Section 2.5	0/1	0/1	0/0	0/0	1/1	10 working days after receipt of samples
9	RSY Analytical Data Packages	Section 2.5	0/1	0/1	0/0	0/0	1/1	45 days after receipt of BCT comments
10								



**SECTION 8 – PERFORMANCE MEASUREMENT AND PAYMENT SUMMARY**

Within the table the tasks have been rolled up under each Work Element so as to avoid repetition of the text. Performance measurement and payment will however be made at the task level. The Contractor's proposal and invoice shall therefore be broken out by task.

<b>Work Element / Task</b>	<b>Performance Standard</b>	<b>Acceptable Quality Level</b>	<b>Assessment Method</b>	<b>Performance Payment and Incentive</b>
Section 2.1 (Task 1- Project Management)	Accurate and timely cost and schedule management. Accurate and timely meeting support.	Subjective	Navy performance evaluations	Lump sum payable monthly as a percentage of completion of each task. CPARS.
Section 2.2 (Task 2- Project Meetings)	Attendees are prompt and appropriately prepared to meetings and presentations.	100% on promptness; subjective on preparation	Navy receipt of Contractor-prepared minutes within 10 days of meeting when required by SOW; Navy feedback	Lump sum payable pro-rated as a percentage of meeting completion schedule upon Navy acceptance of the meeting minutes.
Section 2.3 (Task 3- Project Infrastructure)	Completion of procurement activities, mobilization efforts, utilities coordination. Maintain a clean and secure work site. Mobilize and demobilize personnel with minimal impacts on base operations ongoing outside Contractor's scope.	Subjective	Navy performance evaluations	Lump sum payable monthly as a percentage of completion of each task. CPARS.
Section 2.4 (Task 4- Planning Documents)	Navy acceptance of deliverables (no resubmittal required due to inadequate content or poor quality). The execution plan, to include SSHP, and all sections and appendices shall include sufficient information to implement the mobilization of equipment and personnel, excavate and remove the sewer and storm drain pipes, demolition of buildings, site preparation, perform the appropriate sampling and surveying, clear the appropriate material and trenches, record and maintain appropriate data in support of site close out, backfill trenches, and demobilize when complete. The planning documents must be clearly written, and have minimal transcription, typographical, and grammatical errors. The SSHP, AHAs, and APPs must be accepted by BRAC PMO, NFECSW, NMCPHC, and comply with all applicable codes, standards, and regulations (including the NCP).	100% Navy acceptance	Navy acceptance by Contracting Officer (KO) or Remedial Project Manager (RPM); acceptance by RASO, ROICC, CSO, and NMCPHC. Concurrence by BCT will also weigh in.	Lump sum payable as a percentage of completion through submission of deliverables to Navy with the following milestone limits in the payment schedule: 30% of the proposed task cost at distribution of internal draft, 30% of task cost upon acceptance and distribution of draft document by KO or RPM, RASO, ROICC, CSO, and NMCPHC, and 40% of task cost upon acceptance and distribution of final document by KO, RPM, and FFA signatories as applicable.

Work Element / Task	Performance Standard	Acceptable Quality Level	Assessment Method	Performance Payment and Incentive
Section 2.5 (Site Support Activities)	<p>Navy acceptance of on site support operations to include:</p> <ul style="list-style-type: none"> <li>-timely support for basewide radiological training and implementation of radiological controls</li> <li>-Efficient laboratory support for on site contractors, complying with the SAP, and meeting project QA/QC objectives.</li> <li>-Efficient processing of radiological and chemical waste material through screening yard and waste manifesting process. Accurate and timely transportation and disposal of waste material from site.</li> </ul> <p>Factors that influence Navy acceptance include timeliness, completeness and accuracy. Manifests shall conform to the report requirements outlined in the SOW; be clearly written; and have minimal transcription, typographical, and grammatical errors.</p> <p>Environmental considerations, in particular dust mitigation and SWPPP measures must be adequately maintained at all times.</p>	100% Navy acceptance	<p>Navy acceptance by Contracting Officer (KO) or Remedial Project Manager (RPM) and RASO; acceptance by ROICC and CSO. Spot visits by Navy, review of field logs and manifest sheets.</p>	<p>Prorated costs of laboratory analyses and radiological screening yard based on number and type of analytical samples processed and volume of material processed through RSY.</p>



## **SECTION 9 – PERFORMANCE REQUIREMENTS AND PAYMENT**

- 9.1** The contractor shall be responsible for achieving the performance objectives in this Performance Work Statement (PWS) and successfully performing all the intermediate tasks required for successful performance. Incentive payments shall be made based on achievement of performance of selected performance objectives in the Performance Requirements Summary (PRS). Performance objectives are also referred to as performance milestones in this PWS. The contractor shall propose a Performance Milestone Schedule that demonstrates understanding of objectives and challenges to successful performance with a target completion date proposed of 8 months from date of award. If the proposed completion date is scheduled beyond 8 months from date of award, a thorough explanation shall be provided.
- 9.2** Payments shall be made to the contractor upon completion of the following:
- 1) Verification that the corresponding performance standards and AQLs have been satisfactorily achieved, and
  - 2) Submission of a properly prepared invoice. Invoices that fail to meet the requirements of this paragraph and/or the invoicing or prompt payment clauses of the contract may be rejected in their entirety; partial payments shall not be made. The Milestone Schedule may be revised only by written agreement of the Contracting Officer.
- 9.2.1** If the work associated with performance milestones is eliminated or not necessary for accomplishing project completion, the payment amount associated with the performance milestone shall be paid to contractor upon achieving the performance standards of the next performance milestone in the Performance Milestone Schedule.
- 9.2.2** Failure to demonstrate that the remedy is operating properly and successfully to achieve the site remedial action objectives may result in non-payment of the final milestone.
- 9.3** BASE BID ITEM: Firm Fixed Price (Lump Sum) including all labor, equipment, and materials for Remedial Design and Remedial Action Installation Restoration Hunters Point Base-wide Radiological Support at the Hunters Point Shipyard San Francisco, California. The proposal is to be submitted as shown in the pricing schedule below:

**PRICING SCHEDULE****FIRM FIXED PRICE WORK**

CLIN	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
2.1	Project Management, and Administrative Support	8	MO	\$ _____	\$ _____
2.2.2	BCT Meetings	2	EA	\$ _____	\$ _____
2.2.3	Contractor Communication and Coordination	8	MO	\$ _____	\$ _____
	Contractor integration meetings	1	EA	\$ _____	\$ _____
2.3	Project Infrastructure	8	MO	\$ _____	\$ _____
2.5.1	On Site Contingency Work ~ provide radiological screening support to other contractors include operating portal monitors	8	MO	\$ _____	\$ _____
2.5.2	Off Site Contingency Work ~ to respond to address Navy off site response action provide radiological/chemical screening support to Navy	8	MO	\$ _____	\$ _____
2.5.3.1	On Site Radiological laboratory	8	MO	\$ _____	\$ _____
2.5.3.2	Off Site Laboratory Support	8	MO	\$ _____	\$ _____
2.5.4	Radiological Screening Yard	8	MO	\$ _____	\$ _____
2.5.5	Waste Material Management	8	MO	\$ _____	\$ _____
				<b>TOTAL FFP</b>	<b>\$ _____</b>

All quantities are estimated for purposes of evaluation. Payments shall be made for actual work performed and accepted in accordance with the contract requirements.



## EXHIBIT 2

2006 Emails re: Soil Conveyor Belt

Subj: **Conveyor system description revised**  
Date: 4/21/2006 2:22:50 P.M. Eastern Daylight Time  
From: [kbradley@newworld.org](mailto:kbradley@newworld.org)  
To: [bertb@newworld.org](mailto:bertb@newworld.org), [bertbowers@aol.com](mailto:bertbowers@aol.com)



The referenced conveyor system supported with attached pictures utilizes a "Grizzly" vibrating hopper, several conveyor belts to move soil/small debris, and an array of 6 GM detectors for beta/gamma detection and 6 sodium iodide detectors for gamma detection which are connected to a laptop computer to display real-time count information.

Soil is loaded into the grizzly, which separates large rocks that can be surveyed individually from the soil/small debris. The soil continues on the conveyor, passing under the detector array to be monitored by the HP Technician assigned to the computer readout. When radioactive material is detected, an alarm shows on the computer and the belt is stopped. A manual survey is performed to confirm/isolate the contamination which is then removed and the system is restarted to continue stockpiling the surveyed "clean" material.

**From:** Kenneth Bradley  
**Sent:** Fri 6/2/2006 12:33 PM  
**To:** John Polyak  
**Cc:** Bert Bowers; Justin Hubbard  
**Subject:**

Monday, May 15, 2017 AOL: BERTBOWERS

---



#### General conveyor facts –

- No procedure exists in NWT for the operation of the conveyor system.
- There is no set frequency to check the belt speed.
- There is no “training” for the system or the belt. All knowledge is passed on by “experienced” people.
- Based on interviews with technicians/supervisors, from the beginning of the project, Tetra Tech supervision (I was told Bill Williams) stated that the conveyor belt was “equipment” that technicians were not allowed to operate except to stop for an alarm.

#### Facts about the PCB conveyor –

- The generator was reinstalled in the area after Christmas shutdown on Feb 13, 2006
- There is no evidence the belt speed was checked after the generator was installed.
- There is no record of when the speed was last checked.
- All 2x2 alarm setpoints are right. All GM setpoints have been raised by 2.
- HP’s working the conveyor believe that the belt speed is Tetra Tech’s responsibility.

#### Recommendations for conveyor operations –

- Through discussions w/TT, establish clear responsibility for conveyor operations. Belt speed is as important to us as detector height or alarm setpoints. We MUST control this and be allowed to stop operations when a certain variance is exceeded.
- The need for a procedure for setup and operation is paramount. Operations cannot be left to memory or “tribal knowledge”.
- Training must be conducted. Knowledge and understanding of these systems vary too much to depend on memory to ensure adequate training of all personnel.

**EXHIBIT 3**

Emails re: Thorpe Miller Resignation



**From:** Abkemeier, Erik  
**Sent:** Tuesday, May 04, 2010 9:18 AM  
**To:** Bowers, Bert  
**Subject:** FW: TQM Letter of Resignation

Bert,

Here is what I received....let me know if there something you need me to do....

**Erik Abkemeier CHP PE CSP CHMM** | Corporate Health Physics Manager  
Direct: 757.466.4906 | Fax: 757.461.4148 | Cell: 757.944.0921  
[erik.abkemeier@tetrattech.com](mailto:erik.abkemeier@tetrattech.com)

**Tetra Tech EC | ESQ**  
Twin Oaks, Suite 309, 5700 Lake Wright Drive | Norfolk, VA 23502 | [www.tetrattech.com](http://www.tetrattech.com)

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**Think Green - Not every email needs to be printed.**

**From:** Bolt, Andrew  
**Sent:** Friday, April 23, 2010 6:02 PM  
**To:** Abkemeier, Erik; Charette, Jessica  
**Cc:** Dougherty, Bill  
**Subject:** FW: TQM Letter of Resignation

Attached is Thorpe Miller's resignation. He's actually helping us out by doing this. Thorpe is the son of Laurie Lowman from RASO. While the Navy Legal verified hiring Thorpe did not create a conflict of interest, Laurie has received some negative comments stating she favors TtEC only because her son works for us. Thorpe's resignation removes that appearance of conflict.

Thorpe will be taking a job with another company, but will most likely be working as subcontractor for us. This should provide enough layers that the appearance of a conflict is removed, and will help out Laurie Lowman and us, both.

Erik - Thorpe is your resource. I recommend accepting Thorpe's resignation with a date of May 7, and wishing him all the best. He has been a superstar for us at Hunters Point. His attention to detail on the rad database is impressive.

Thanks,  
Andy

**From:** Dougherty, Bill  
**Sent:** Friday, April 23, 2010 2:30 PM  
**To:** Bolt, Andrew  
**Subject:** FW: TQM Letter of Resignation

Andy,

Attached is Thorpe Millers resignation.

Bill sends...

**Bill Dougherty** | Project Manager  
Direct: 415.216.2731 | Cell: 415.238.7006  
[bill.dougherty@tetrattech.com](mailto:bill.dougherty@tetrattech.com)

**Tetra Tech** | Remediation  
200 Fisher Avenue | San Francisco, CA 94124 | [www.tetrattech.com](http://www.tetrattech.com)

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**Think Green - Not every email needs to be printed.**

**From:** Miller, Thorpe  
**Sent:** Friday, April 23, 2010 2:16 PM  
**To:** Dougherty, Bill  
**Cc:** Dougherty, Christine  
**Subject:** TQM Letter of Resignation

Bill,

Attached you will find a signed copy the letter below:

"April 23, 2010

Thorpe Q. Miller  
118-A Chippenham Drive  
Yorktown VA, 23693

Mr. Dougherty,

I hereby submit to you my request for resignation from the position of Radiological Data Analyst with Tetra Tech EC, Inc. My final day available for employment will May 7, 2010. I am truly appreciative of the opportunities given to me with the company and find no fault with the people I have encountered both on-site and in the corporate offices. This is a personal decision on my end and I hope that with my departure, the relationship between Tetra Tech EC, Inc. and myself remains in both strong and in good standing. Thank you again for the professional development and personal growth during my time at Hunters Point Shipyard, and if there is anything else, you need please do not hesitate to inquire.

Thank you,

---

Thorpe Q. Miller"

If any other items are needed from myself, please inform.

Thank you

**Thorpe Q. Miller** | Radiological Data Analyst  
Direct: 415.216.2773 | Main: 415.671.1990 | Fax: 415.671.1995 | Cell: 415.405.5088  
Thorpe.Miller@tetrattech.com

**Tetra Tech EC Inc.** | ESQ  
200 Fisher Ave. | San Francisco, CA 94124 | [www.tetrattech.com](http://www.tetrattech.com)

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**Think Green - Not every email needs to be printed.**



**EXHIBIT 4**

Jan. 6, 2011 Email re: Backfill Trenches Unit 187

**From:** Miller, Thorpe

**Sent:** Thursday, January 06, 2011 7:24 AM

**To:** Berry, Adam; Bowers, Bert; Bray, Jeff; Chiu, George; Dougherty, Christine; Hanif, Chris; Hubbard, Justin; Kanaya, Rich; Keenan, Daniel; McWade, Dennis; Miller, Thorpe; Montgomery, Shanti; Rolfe, Stephen; Weingarz, Richard; White, Bryan; Crabtree, Allen; Ho, Sam; Lai, Timothy; Pena, Luis

**Subject:** FW: HPS Data - Parcel UC3 Sewer Trench Unit 187 (TO03)

Team,

We have received concurrence from the RASO to backfill Trench Unit No. 187. Trench Unit No. 187 (TU187) is located in Work Area #16 of Parcel UC3. It is 757 square meters in area (8148.28 square feet) and 376 linear feet in length. Engineers have estimated that a total of 759 cubic yards of soil will be needed to backfill this trench unit.

The backfill soil proposed for TU187 is as follows:

							Total	RASO
Trench	Work	ES	IR	Estimated	Adjusted	Remediated	Estimated	Cleared
Unit	Area	Unit #	Site	Yards <sup>3</sup>	Yards <sup>3</sup>	Yards <sup>3</sup>	Yards <sup>3</sup>	Backfill
187	UC3	0307	00	324	243	2	241	17-Nov-10
	16	0309	00	300	225	7	218	17-Nov-10
		0318	00	140	105	0	105	25-Oct-10
		Total		764	573	9	564	

Imported Mills Peninsula Hospital soil will be utilized for additional cubic yardage (est. 195 yd<sup>3</sup>) given the project requirement for a final compacted soil layer. Please keep the Data Group informed on a daily basis as to the actual quantity used in backfilling the trench and the quantity left over to be used in a different trench unit in the future if applicable.

Thank you,

Thorpe Q. Miller | Data Manager

Direct: 415.216.2773 | Main: 415.671.1990 | Fax: 415.671.1995 | Cell: 415.710.3096

Thorpe.Miller@tetrattech.com

IO Environmental & Infrastructure, Inc. | Hunters Point Shipyard

2840 Adams Ave. | San Diego, CA 92116 | [www.ioenvironmental.com](http://www.ioenvironmental.com)

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-----Original Message-----

From: Jensen, Jarvis K CIV SEA 04, 04NR [<mailto:jarvis.jensen@navy.mil>]

Sent: Thursday, January 06, 2011 7:15 AM

To: DeLong, Daryl; Lowman, Laurie L CIV SEA 04 04N; Slack, Matthew L CIV SEA 04 04N; Owens, Patrick A CIV SEA 04 04N; Edwards, Zachary L CIV SEA 04 04N; Stambaugh, Allen R CIV SEA 04, 04N

Cc: Henderson, Brian; Dougherty, Bill; Dougherty, Christine; Miller, Thorpe; Bray, Jeff; Weingarz, Richard; Chiu, George

Subject: RE: HPS Data - Parcel UC3 Sewer Trench Unit 187 (TO03)

Daryl,

I have reviewed the Survey Unit 187 Project Report. I concur with backfilling the trench.

Jarvis

Jarvis Jensen

NAVSEADET RASO

Yorktown Naval Weapons Station

(757) 887-4483

[jarvis.jensen@navy.mil](mailto:jarvis.jensen@navy.mil)



-----Original Message-----

From: DeLong, Daryl [<mailto:daryl.delong@tetrattech.com>]

Sent: Wednesday, December 01, 2010 9:02 AM

To: Jensen, Jarvis K CIV SEA 04, 04NR; Lowman, Laurie L CIV SEA 04 04N; Slack, Matthew L CIV SEA 04 04N; Owens, Patrick A CIV SEA 04 04N; Edwards, Zachary L CIV SEA 04 04N; Stambaugh, Allen R CIV SEA 04, 04N

Cc: Henderson, Brian; Dougherty, Bill; Dougherty, Christine; Miller, Thorpe; Bray, Jeff; Weingarz, Richard; Chiu, George

Subject: HPS Data - Parcel UC3 Sewer Trench Unit 187 (T003)

Attached for your review is the Internal Draft Survey Unit 187 Project Report and Attachments 1 through 5, 7, and 8. Attachment 6 is QA data and is not available at this time. We would like concurrence to backfill the trench.

Daryl DeLong | Consulting Health Physicist

Direct: 415.216.2734 | Main: 415.671.1990 | Fax: 415.671.1995 | Cell: 415.308.7027

[Daryl.Delong@tetrattech.com](mailto:Daryl.Delong@tetrattech.com)

RSRS | Health Physics

200 South Virginia St. Suite 800 | Reno, NV 89501 | [www.radsvcs.com](http://www.radsvcs.com)

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## EXHIBIT 5

Jan. 6, 2011 Email re: Backfill Trenches Unit 190



**From:** Miller, Thorpe

**Sent:** Thursday, January 06, 2011 1:09 PM

**To:** Crabtree, Allen; Ho, Sam; Lai, Timothy; Pena, Luis; Berry, Adam; Bowers, Bert; Bray, Jeff; Chiu, George; Dougherty, Christine; Hanif, Chris; Hubbard, Justin; Kanaya, Rich; Keenan, Daniel; McWade, Dennis; Miller, Thorpe; Montgomery, Shanti; Rolfe, Stephen; Weingarz, Richard; White, Bryan

**Subject:** FW: HPS Data - Parcel UC3 Sewer Trench Unit 190 (TO03)

Team,

We have received concurrence from the RASO to backfill Trench Unit No. 190. Trench Unit No. 190 (TU190) is located in Work Area #16 of Parcel UC3. It is 580 square meters in area (6243.07 square feet) and 250 linear feet in length. Engineers have estimated that a total of 635 cubic yards of soil will be needed to backfill this trench unit.

The backfill soil proposed for TU190 is as follows:

							Total	RASO
Trench	Work	ES	IR	Estimated	Adjusted	Remediated	Estimated	Cleared
Unit	Area	Unit #	Site	Yards <sup>3</sup>	Yards <sup>3</sup>	Yards <sup>3</sup>	Yards <sup>3</sup>	Backfill
190	UC3	0312	00	300	225	1	224	17-Nov-10
	16	0317	00	300	225	0	225	25-Oct-10
		Total		600	450	1	449	

Imported Mills Peninsula Hospital soil will be utilized for additional cubic yardage (est. 186 yd<sup>3</sup>) given the project requirement for a final compacted soil layer. Please keep the Data Group informed on a daily basis as to the actual quantity used in backfilling the trench and the quantity left over to be used in a different trench unit in the future if applicable.

Thank you,

Thorpe Q. Miller | Data Manager

Direct: 415.216.2773 | Main: 415.671.1990 | Fax: 415.671.1995 | Cell: 415.710.3096

Thorpe.Miller@tetrattech.com

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2840 Adams Ave. | San Diego, CA 92116 | [www.ioenvironmental.com](http://www.ioenvironmental.com)

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-----Original Message-----

From: Jensen, Jarvis K CIV SEA 04, 04NR [<mailto:jarvis.jensen@navy.mil>]

Sent: Thursday, January 06, 2011 1:05 PM

To: DeLong, Daryl; Lowman, Laurie L CIV SEA 04 04N; Slack, Matthew L CIV SEA 04 04N; Owens, Patrick A CIV SEA 04 04N; Edwards, Zachary L CIV SEA 04 04N; Stambaugh, Allen R CIV SEA 04, 04N

Cc: Henderson, Brian; Dougherty, Bill; Dougherty, Christine; Miller, Thorpe; Bray, Jeff; Weingarz, Richard; Chiu, George

Subject: RE: HPS Data - Parcel UC3 Sewer Trench Unit 190 (TO03)

Daryl,

I have reviewed the Survey Unit 190 Project Report. I concur with backfilling the trench.

Jarvis

Jarvis Jensen

NAVSEADET RASO

Yorktown Naval Weapons Station

(757) 887-4483

[jarvis.jensen@navy.mil](mailto:jarvis.jensen@navy.mil)

-----Original Message-----

From: DeLong, Daryl [<mailto:daryl.delong@tetrattech.com>]

Sent: Thursday, December 02, 2010 4:02 PM

To: Jensen, Jarvis K CIV SEA 04, 04NR; Lowman, Laurie L CIV SEA 04 04N; Slack, Matthew L CIV SEA 04 04N; Owens, Patrick A CIV SEA 04 04N; Edwards, Zachary L CIV SEA 04 04N; Stambaugh, Allen R CIV SEA 04, 04N

Cc: Henderson, Brian; Dougherty, Bill; Dougherty, Christine; Miller, Thorpe; Bray, Jeff; Weingarz, Richard; Chiu, George

Subject: HPS Data - Parcel UC3 Sewer Trench Unit 190 (T003)

Attached for your review is the Internal Draft Survey Unit 190 Project Report and Attachments 1 through 5, 7, and 8. Attachment 6 is QA data and is not available at this time. We would like concurrence to backfill the trench.

Daryl DeLong | Consulting Health Physicist

Direct: 415.216.2734 | Main: 415.671.1990 | Fax: 415.671.1995 | Cell: 415.308.7027

[Daryl.Delong@tetrattech.com](mailto:Daryl.Delong@tetrattech.com)

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