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NUCLEAR REGULATORY COMMISSION

IN RE: TETRA TECH EC, INC.	**DECLARATION OF ROBERT MCLEAN IN SUPPORT OF PETITION TO REVOKE THE LICENSE OF TETRA TECH EC, INC.**

I, Robert McLean, declare:

1. I began work in the nuclear industry in approximately 1988 as a radiation worker in when I was hired as a "deconner" (i.e. a decontamination technician) to do decontamination work for nuclear power plants. My first nuclear power plant work was with Shearon Harris Nuclear Power Plant in New Hill, North Carolina. I received extensive training from this nuclear power plant and at others that I worked. I was tested repeatedly on my knowledge of Health Physicist (HP) information. I took and passed the Department of Energy's (DOE) Radiological Control Technician (RCT) CORE Exam three times. The DOE CORE Exam covers fundamental radiation concepts and functions performed by HPs (also known as radiation control technicians, or "RCTs"), including mathematics and physical science, sources of radiation, sampling methods, survey instrumentation, dosimetry, and worker safety, among other topics. Passing the CORE exam qualified me to work as an RCT/HP at the nuclear power plants and other such facilities.

2. I worked at approximately 15 nuclear power plants in the years before I began work at Hunters Point Naval Shipyard in 2005. In addition to work at the nuclear power plants, I also worked for the Department of Energy at the Nevada Nuclear Security Test Site near Las Vegas, the Idaho National Laboratory, and the Savannah River Nuclear Site in South Carolina. I received extensive radiological training as part of my employment at the Department of Energy sites.

3. In the early fall of 2005, I was hired by New World Environmental to work at the Hunters Point Naval Shipyard as a Senior Health Physicist, also known as a Radiological Control Technician. I worked there for about four months, was layed off for a short period of time, and then returned to work at Hunters Point in early 2006 until the fall of 2006. I was then transferred from Hunters Point to work over at Treasure Island as a lead Senior HP for New World Environmental to assist in the radiological evaluation of Treasure Island. I worked at Treasure Island for approximately a year and a third. I was released from work at Treasure Island. I was

informed that the Navy insisted I be released from work at Treasure Island because I had received extensive radiological exposure due to my work at Treasure Island.

4. When I began work at Hunters Point I was assigned to work as a Senior HP. I was assigned, with others, to assist in the radiological component of soil screening that was being done on a conveyor belt system. The conveyor belt system I worked on received soil from the area known as the PCB Hot Spot in Parcel E.

5. The conveyor belt system provided for soil to be spread on the belt in a thickness of less than six inches. The soil when spread on the belt then was to slowly pass under radiological sensors at a set speed as I recall of 2 inches a second. Each day I and other HPs were to test the sensors to confirm the sensors worked by having a known radiological source pass under each of the sensors on the belt to assure the alarm would be triggered. I and others were also to confirm that the belt speed was correct.

6. When soil passed under the sensors and the alarm sounded, the soil on both sides of the sensors at a prescribed number of feet was to be removed from the belt. The soil removed from the belt was to be scanned by an HP, and the soil that gave elevated radiological readings was to be segregated and placed into low level radiological waste bins for disposal at a low level radiological disposal facility licensed by the United States government. The soil that had gone through the conveyor system without any alarm was stockpiled in designated areas to be loaded onto trucks for disposal as non-radiologically impacted soil at landfills that could accept PCB contaminated soil. These landfills were not licensed or authorized to accept radiologically contaminated soils.

7. The HPs involved in the conveyor belt processing with me during this early phase were Gary Wilson, Jane Taylor, Madena McLean [my wife], Demarius Bradley, Curtis Hales, and Damian whom I do not recall his last name. Bradley acted as the first level supervisor over the

HPs, and Justin Hubbard acted as the supervisor over Bradley. If Bardley and Hubbard were not present, I was considered, with Gary Wilson, to be the most senior HPs working the conveyor belt. However, Jane Taylor was also given lead responsibility or authority, despite the fact that Jane Taylor did not have the knowledge, skill, or experience for the position. Based on my observations Jane Taylor was not qualified to be in the position she held involving the conveyor belt system.

8. At the start of the day, I would log into the computer system at the conveyor belt. The HPs were to perform a test with the radiological sources to be sure each probe was functioning and that the belt speed was proper. Within a short period of time I noticed that when I and other HPs working the conveyor belt system went to lunch, when we returned the belt would be running at excessive speed. I recall repeatedly calling the office and having to report the belt speed had been increased. The HPs were not authorized to alter the belt speed during the day. We were repeatedly told to continue to run the conveyor belt at the excessive speed rather than shut the conveyor belt process down. In this early time period, it took hours for Tetra Tech to send personnel to change the belt speed to the slower correct speed.

9. Weeks went on where repeatedly when I and HPs returned from lunch or break, the conveyor belt speed had been changed by Tetra Tech employees to run at excessively fast speeds. The conveyor belt system was made much less effective running at faster speeds than the approved slower speed. In the early time, when the belt speed was properly set, the radiological probes alarmed with some frequency, hourly or more frequently, so that the conveyor had to be stopped and the soil removed, scanned, and segregated for low level radiological waste treatment. When the belt speed was increased during our lunch breaks, the frequency of the probes alarming was greatly reduced, resulting in much less soil being removed, scanned, and treated as low level radiological waste.

10. After some weeks of the belt speed being secretly increased and I and other HPs reporting and complaining about the increased belt speed to Tetra Tech management, I recall heated arguments with Justin Hubbard of Tetra Tech. Mr. Hubbard told us we did not know what we were talking about when complaining of the belt speed increases. I and other HPs felt threatened by Mr. Hubbard. The conduct and statements of Mr. Hubbard seemed to threaten our jobs, and also seemed to threaten us physically. I tried not to be intimidated by Mr. Hubbard, and continued to report and complaint about the belt speed being improperly tampered with and increased.

11. A short time after the confrontation with Mr. Hubbard, I discovered that the conveyor belt had been locked so that the belt speed could not be changed. However, the belt speed was locked at far too fast a speed well above the established standards. I objected to Tetra Tech that the belt speed was too fast and locked. I and the other HPs that objected got no support from the Tetra Tech management. I was told I did not know what I was talking about, and things were to stay as they were. The tampering of the conveyor belt speed was done by Tetra Tech to obtain faster, cheaper production of processed soil, without regard for proper identification and removal of hazardous radioactive waste. Within a relatively short period of time thereafter, I was laid off of work at Hunters Point in late 2005.

12. In early spring of 2006, I was recalled to work at Hunters Point. The Navy appeared to have discovered that the conveyor belt system had been run too fast, and had not been operated properly while I was on lay off status. The conveyor belt system for the PCB Hot Spot soil processing was shut down. Large amounts of soil that had gone through the conveyor belt system when it was improperly run at excessive speeds (and other potential problems) had to be screened to obtain clearance as non-radiologically impacted soil, or segregated as low level radioactive waste. Justin Hubbard was put in charge of the process of evaluating and clearing

these thousands of cubic yards of soil. Mr. Hubbard directed that the soil was to be scooped up by backhoes and frontloaders in large scoops. The scoops of soil were approximately 3 feet or more thick and as much as 7 feet wide. An HP was to hand scan the soil in the scoop to try and detect radioactive contamination. Based on my years of experience in the field I knew that the hand sensors we utilized were ineffective in detecting low level radiological waste more than a few inches below the soil surface, and were shielded by the thick steel of the scoop. I objected that the scoops were multiple feet thick and the sensors had no ability to detect hazardous radioactive contamination that could be in the center and back of the scoop. I objected that it was a fraud to give clearance to the scoop of soil with only a hand scan. I objected and urged that the soil had to be put down in a spread out manner with limited thickness and scanned to obtain valid clearance. Tetra Tech management refused to have the soil scanned in a proper manner to detect and remediate the soil. I was ordered to do the hand scanning process that I believed based on my training and experience was ineffective for scanning an entire soil scoop. I did the work despite my objection and belief that the work was ineffective and wrong. I believe that a great amount of soil was shipped off Hunters Point and labeled as non-radiological soil, when if proper radiological scanning had been done, the soil would have been designated as hazardous low level radiological waste and required to be disposed of in one of the few sites authorized to receive radioactive waste.

I declare under penalty of perjury that the foregoing is true and correct to the best of my personal knowledge.

Executed on June 27, 2017 in Fayetteville, North Carolina.

Robert L McLean

Robert McLean