

Good morning Chair Mitchoff and Board,

I am here to summarize what I learned last week by reading and talking with many people familiar with the cleanup activities that have been occurring at the Hunters Point Naval Shipyard in San Francisco. My findings and recommendations for next steps are before you today because of concerns resulting from a San Francisco Chronicle newspaper article published on April 22nd in which there was an assertion that a Navy consultant's deliberate falsification of sampling data may have compromised adequacy of screening used to determine if soil should be accepted at Keller Canyon Landfill as well as several other landfills in California.

First, this is a serious implication, and so we immediately began researching this claim. And it is a complicated issue. Radiologic contamination is even more complex than chemical contamination.

Applicable state and federal regulatory agencies have found that there had been deliberate acts on the part of the Navy's selected consultant to misrepresent the radiological sampling data. To date these misrepresentations are tied to potentially contaminated soil/material being left on site instead of removing it. I want to repeat this, the reports released by the Nuclear Regulatory Commission and the USEPA reveal the falsification of data to allow soil to remain in place at the Hunters Point Naval Station.

At this point, we have no evidence that radiological material was sent to Keller Canyon; however there continue to be investigations by federal and state officials of the consultant's work. If some of the material that was sent to Keller Canyon, it was the same misrepresentations of the Navy consultant that allowed the material to be get to the landfill, and it almost no risk as it is either buried or dispersed and diluted in the roadway material. It is disappointing that the county nor Keller Canyon Landfill were contacted by any of the state or federal agencies about the possibility of Hunters Point waste being incorrectly sent to Keller Canyon.

As you are aware, Keller Canyon Landfill is a Class II landfill which primarily receives domestic garbage from Transfer Stations located in/near Martinez, North Richmond, City of Brentwood and Pittsburg. The landfill is not open to the public. In addition to domestic garbage Keller Canyon Landfill may accept Class II wastes, such as treated wood, soils with low levels of petroleum, and wastewater sludge. Approximately 10% of the material they receive is not domestic garbage (municipal solid waste). In order to be allowed to send Class II waste to the landfill, the responsible party must create an account with the landfill, attesting to the material that they will be sending, and providing specific information about the waste such as its characteristics and sampling data.

Keller Canyon is the most modern built landfill in the State with lining, a leachate and gas collection system and emissions and groundwater monitoring systems. It is not a landfill for the disposal of material deemed to be radioactive or hazardous. There is a radiation monitoring system that is on at all times when the facility is open. Each truck moves through the radiation monitoring system as it approaches the scales to weigh the load. The radiation monitor has been triggered in the past when higher levels of radioactive material were traced to a diaper of a child who had received a chemotherapy drug, in another instance the radiation monitor was activated with what ended up being a towel that a chemotherapy patient threw up in, and lastly another occasion when a driver of the truck set it off. The

truck driver had undergone a diagnostic procedure the day before that involved a radioactive tracer. However, the radiation monitor would not necessarily have been activated by low level radioactive waste that was buried in soil as the soil provides a shielding effect.

Keller Canyon has nearly 223 thousand tons of material on-site that came from Hunters Point Naval Shipyard. This material was deemed eligible for acceptance pursuant to the company's review and approval of 13 separate "special waste applications" for this waste, each one having its own data that was provided and certification stating it was not hazardous. Keller Canyon has never been notified that any of that data was falsified.

Along with my staff, we have found the following:

- The Shipyard which was closed in 1974 is being cleaned for chemical and radioactive material. The radioactive material is found at the shipyard because of the radium paint which glows in the dark and was used for ship deck markings and luminescent dials, gauges and signs; there was an animal testing lab; and from sandblasting ships that been part of the weapons testing in the South Pacific.
- The sewer line and storm drain system have been the focus of much of the radioactive investigation. Trenches have been dug over miles of the site to remove the pipes and the test the soil around it.
- The Navy identified in 2012 that there was some suspect soil data, and an investigation done by the consultant and provided to the Navy in 2014 supported this finding.
- An October 2016 report from the Nuclear Regulatory Commission found that as far back as 2011, the Navy consultant had misrepresented samples used to determine the need for soil removal.
- A December 2017 letter to the Navy from the USEPA commenting on a 2017 report from the Navy found the, "data analyzed demonstrate a widespread pattern of practices that appear to show deliberate falsification." The Navy is apparently in the process of designing a radiological assessment to follow-up on these falsifications.
- In 2015, 10 truck loads of material from Hunters Point was sent to Keller Canyon. A Navy engineer noticed that a trucking company was removing material from an area that had not yet been released. They contacted the California Department of Public Health who in turn contacted the landfill and indicated to them that the material had not yet been released for disposal. The landfill sent 20 truckloads back, gathering any material around where they had disposed of it. A subsequent investigation found that the material did contain several items that had low-level radioactivity which were removed from the material once it was back at Hunters Point. This is an example of when the system worked, the responsible party and the oversight agencies caught the mistake and took action to correct it. Our outstanding question is whether catching the mistake did not happen on other occurrences.

All of the studies and findings that I have reviewed and discussions I have had with state and federal point to contamination being left onsite as the concern. However, it is not clear how much effort has focused on understanding what was sent off-site, and in particular sent to Keller Canyon Landfill, and was that done correctly. So that leads us to recommend the following to the board.

- Formally ask the Navy to make itself available for meetings with interested community and stakeholders to better understand what might have occurred;
- Formally ask the Navy to investigate over a longer time period the quality of the data that was used to send the loads to Keller. Review the material that was provided to Republic Services to assert it could be disposed of safely at the landfill.
- Formally ask the Navy to conduct a surface survey of the site to see if there is any radiological hazard. Ask that this be done expediently to address our concerns, for instance within two months. Ask that the state Department of Public Health radiological experts, City of Pittsburgh, Republic Services, a community representative and the county be part of the planning of this effort. Doing this correctly is important as there is naturally occurring radioactive material and what will be done if a false positive occurs, how to interpret what is found. All of these issues take a knowledgeable person and a good plan. There is no acute health risk, so taking the time to do this correctly is important. I have talked with the California Department of Public Health and they too agree that the Navy should be asked to take the lead on the investigation. They offered to assist with the request of the Navy, and they offered their assistance with the planning of the investigation.
- Direct staff to return in 30 days with a follow-up status report for information and recommendations.