Hunters Point Radiation concerns Feb – May 2016

This compilation contains the following:

1. **Summary of concerns from EJ Task Force Meetings 3/16 and 5/18**
2. **Emails to EPA from public and press**
3. **Summary of issues from 4/12 technical meeting with Dan Hirsch**
4. **Emailed questions from Dan Hirsch beginning 2/10**
5. **Notes from EJ Task Force Mtg 4/21**
6. **Notes from EJ Task Force Mtg 5/18**

1. Notes from EJ Task Force Mtg 5/18 (DRAFT writeup 5-19-2016)

Disclaimer – This is not a transcript, but a rough summary in which I paraphrased and condensed.
Summary of concerns:

- Because Tetra Tech falsified samples, we don't trust that we are safe.
- EPA and DTSC should do criminal investigations in coordination with the Navy's investigations.
- EPA should collect samples independent of Navy, and they should be underground, not just surface
- Radioactive material could be going to the landfills in Buttonwillow and Kettleman City, both EJ communities
- The Navy should come back to the EJ Task Force Meetings and answer questions
- Treasure Island is related to Hunters Point and the EJ Task Force should also address Treasure Island problems.
- The Navy should bring back the RAB

Details appear at the end of this document

From: LEE, LILY
Sent: Friday, April 15, 2016 9:20 AM
To: 'Robinson, Derek J CIV NAVFAC HQ, BRAC PMO' <derek.j.robinson1@navy.mil>; 'Janda, Danielle L CIV NAVFAC SW' <danielle.janda@navy.mil>; 'william.d.franklin@navy.mil' <william.d.franklin@navy.mil>; 'zachary.edwards@navy.mil' <zachary.edwards@navy.mil>; 'matthew.slack@navy.mil' <matthew.slack@navy.mil>; 'Nina Bacey (Juanita.Bacey@dtsc.ca.gov)' <Juanita.Bacey@dtsc.ca.gov>; Lane, Jackie <Lane.Jackie@epa.gov>; tlow@waterboards.ca.gov
Cc: Chesnutt, John <Chesnutt.John@epa.gov>
Subject: Questions EPA has already received re Hunters Pt radiation issues

Derek requested yesterday all the questions that we have already received about Hunters Pt & Radiation. That is a great idea. I'm glad you suggested it.

Here are some notes to start with attached and below. I am sure I've received others that I didn't have in writing. I'll think about it some more.

3/16/16 - EJ Task Force Mtg: (Jackie, please help me because I am not sure if my memory is correct

Mr. James: My father and my wife's Uncle worked at the Shipyard. They died of cancer. It must have been from radiation left behind because Tetra Tech falsified samples. Tetra Tech should go to jail.

Carol Harvey – Tetra Tech worked at Treasure Island. Radioactive waste goes between Hunters Pt & Treasure Island. Tetra Tech works at both. They must be falsifying samples at Treasure Island too. The Hunters Pt EJ task force should advocate for Treasure Island because the issues are so related to one another.

Etecia Brown – Former workers whistleblowers and got fired because of it telling the truth about Tetra Tech's problems.

2. Emails to EPA

[redacted]

From: LEE, LILY

Sent: Monday, April 18, 2016 8:00 AM
To: 'Macchiarella, Thomas L CIV NAVFACHQ, BRAC PMO' <thomas.macchiarella@navy.mil>
Cc: Chesnutt, John <Chesnutt.John@epa.gov>; 'Robinson, Derek J CIV NAVFAC HQ, BRAC PMO' <derek.j.robinson1@navy.mil>
Subject: FW: Questions EPA has already received re Hunters Pt radiation issues

Dear Thomas,

Derek let us know that you will attend the meeting this Thursday. I'm glad you're coming. I apologize that I forgot to send this to you last week along with the others. I've been sending these questions to Derek and others in the Navy as I've been getting them so that the Navy is are aware of what we hear as well.

- Lily

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[redacted]

[redacted]

[redacted]

[redacted]

From: Huitric, Michele
Sent: Friday, May 20, 2016 4:03 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>; Lane, Jackie <Lane.Jackie@epa.gov>; Chesnutt, John <Chesnutt.John@epa.gov>
Cc: Harris-Bishop, Rusty <Harris-Bishop.Rusty@epa.gov>; Huitric, Michele <Huitric.Michele@epa.gov>
Subject: FYI - NBC Bay Area interview request - Hunters Point

Just a quick heads up that NBC Bay Area (KNTV) producer Liz Wagner has requested a phone interview (on background) with Lily regarding EPA superfund cleanup guidelines. This is in regards to NBC Bay Area's series of reports on the cleanup of the Hunters Point Shipyard.

She said that she has questions about what cleanup standards the EPA is using for superfund sites like Hunters Point. And that she will ultimately be requesting an on-the-record interview but thought it would be helpful to have a phone call first.

She is available next Monday and Tuesday for the call.

3. Hunters Pt Radiation Meeting 4/12/16 – Draft notes

Participants included Greenaction/EJ Task Force (e.g. Bradley Angel, Marie Harrison), UCSC (e.g. Dan Hirsch), Navy BRAC (e.g. Derek Robinson, Danielle Janda), Navy RASO (Zachary Edwards, Matt Slack), EPA Region 9 (e.g. Angeles Herrera, Lily Lee, Rob Terry, John Chesnutt, Jackie Lane), DTSC (Nina Bacey)

Issues/concerns raised by UCSC and EJ Task Force – draft notes

1. Does the Navy agree under CERCLA Fed Facility on NPL must be cleaned up consistent w/guidelines, rules, criteria of EPA? (See Section 120(a)(2) of CERCLA requires all Fed Facilities)

2. Re 2006 release criteria, which have not since been updated,
    a. Only the soil criteria reference EPA PRG's. What about Surfaces?
    b. Don't buildings fall under CERCLA too?
    c. Note b states "These limits are based on 25 mrem/yr," but EPA would have required at most 15 mrem/yr at the time and 12/ mrem/yr now
    d. Where is documentation that these criteria met EPA appropriate standards in 2006?
    e. Why haven't they been updated to become more conservative to be consistent with updates to EPA approaches nationwide?
    f. For example, the standard for Plutonium-239 (previously 2.59 pCi/g Residential soil) should now be 2 orders of magnitude lower now.
    g. Cite 40 year old AEC Reg Guidance, which cannot be used
    h. Cite 1991 EPA PRG, which is too old

3. EPA is supposed to approve the original cleanup standard using EPA approaches and update them routinely. EPA should not be evaluating afterwards.

4. EPA's analysis of Navy SUPR

    a. Based on mean, but for suburban residential, you are generally not supposed to average.

    b. Not supposed to be using net above background. It is supposed to use the full reading, not just incremental.

    c. One has wrong conversion factor.

5. Because the cleanup standards were not strict enough, radioactive material that is at 24 mrem/yr could have been considered "safe" and these people could be at risk:
    a. future residents could be living on top of radioactive material that should have been removed.
    b. Neighborhood residents could be exposed to dust from excavation that was not properly controlled because it was considered safe because it was below release

criteria.

c. Neighborhood residents could be exposed to dust from trucks transporting waste that was not properly controlled because it was considered safe because it was below release criteria.
d. Waste going to landfills could be at unsafe levels and expose residents of Kettleman City and Buttonwillow, which are EJ Communities
e. Where is documentation of sampling results for soil that is transported? Could some of it have had levels of less than 25 mrem/year but above 12 or 15 mrem/yr?

6. Containment (Durable covers) and Institutional control (restrictions on planting vegetables in soil) should not be the solution to radiological waste. Instead, all unsafe levels should be removed.

[redacted]

Attachment – 2006 Release Criteria

4. **Emailed questions from Dan Hirsh 2/10 – 4/18**

Lily forwarded all emails to Navy soon after receiving them.

From: Daniel Hirsch [mailto:dohirsch@ucsc.edu]
Sent: Monday, April 18, 2016 12:04 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>
Cc: Walker, Stuart <Walker.Stuart@epa.gov>
Subject: Hunters Point info request

Hi Lily,

The Hunters Point documents we have been reviewing indicate a remediation level for radium-226 of 1 pCi/g above background, not to exceed 2 pCi/g, "per agreement with EPA." Could you send me documentation of that EPA agreement and its basis, and any risk assessment that was performed at the time of the risk associated with that level of radium? [Lily is looking in EPA files but has not yet found this. Could the Navy also search its files?] Also, I am having trouble locating the value being employed for radium background—could you let me know what value is being used and where I can find the source for it?

Additionally, I have not been able to locate anything in the links you sent me for the 5-Year reviews regarding EPA review of those reviews as to compliance with EPA CERCLA guidance for radionuclides, including consideration of changes to EPA PRGs. Could you direct me to such review if it took place? [Lily is looking in EPA files but has not yet found this. Could the Navy also search its files?]

Lastly, during our call last week Derek Robinson from the Navy offered to provide additional information on request. On the 13th I emailed him regarding questions and documents about the Tetra Tech matter. I haven't heard back. Given the upcoming meeting on Thursday, I very much would like to have that information now. If there is anything you can do to help facilitate getting a response from the Navy, I would appreciate it.

From: Daniel Hirsch [mailto:dohirsch@ucsc.edu]
Sent: Wednesday, March 30, 2016 4:41 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>
Cc: Walker, Stuart <Walker.Stuart@epa.gov>; Janice Davis <jadadavi@ucsc.edu>; Lucien Martin <lumamart@ucsc.edu>; Maria Caine <mcaine@ucsc.edu>; Janie Flores <jalflore@ucsc.edu>; Liora Huebner <lhuebner@ucsc.edu>; Flora Lu <floralu@ucsc.edu>; bradley@greenaction.org
Subject: Re: Stuart Walker will join RE: request re conference call April 12
May I ask, in preparation for the call, if you could either provide me with copies, or direct me to links if they are posted on a website, for any 5-year reviews performed for portions of Hunters Point to ascertain the potential impact of revised EPA cleanup standards and guidance that may have come into being since cleanup planning and decisions and risk analyses were originally initiated? If the 5 year reviews were done by EPA, it would be helpful to see them. If they were done by the Navy, it would be helpful to be able to obtain them as well as any EPA reviews of the Navy analyses.
[Lily already sent links to 5 year reviews]
Also, if EPA has done any other reviews of how updated EPA guidance and standards and risk assessment methodologies might impact Hunters Point past cleanup actions, decisions, and risk

analyses, it would be very helpful to see those as well.

From: Daniel Hirsch [mailto:dohirsch@ucsc.edu]
Sent: Sunday, March 20, 2016 7:57 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>
Cc: Walker, Stuart <Walker.Stuart@epa.gov>; Janice Davis <jadadavi@ucsc.edu>; Lucien Martin <lumamart@ucsc.edu>; Maria Caine <mcaine@ucsc.edu>; Janie Flores <jalflore@ucsc.edu>; Liora Huebner <lhuebner@ucsc.edu>; Flora Lu <floralu@ucsc.edu>; bradley@greenaction.org
Subject: request re conference call April 12

Hi Lily,

We would appreciate it if you would arrange for Stuart Walker, the EPA Superfund remedial program's National Radiation Expert, to participate in the conference call on Hunters Point issues scheduled for April 12.

We note that "Radiation Risk Assessment at CERCLA Sites Q&A ," (EPA Office of Superfund Remediation and Technology Innovation Directive 9200.4-40, May 2014) states:

"**Q10. For CERCLA risk assessments at remedial sites, is it appropriate to use guidance or approaches developed by other Federal, State or Tribal Agencies or by International or National Organizations?**

A. EPA has made the policy decision that risks from radionuclide exposures at remedial sites should be estimated in the same manner as chemical contaminants, which is consistent with EPA's remedial program implementing guidance (e.g., EPA 1997g, 1999d, 2000f). Consequently, approaches that do not follow the remedial program's policies and guidance should not be used at CERCLA remedial sites. Should regional staff have questions, they should consult with the Superfund remedial program's National Radiation Expert (Stuart Walker of OSRTI at the time this fact sheet was issued, at (703) 603-8748 or walker.stuart@epa.gov), before using guidance from other organizations that is not already incorporated into this and other EPA Superfund remedial program guidance."

Among the issues we wish to explore during the conference call is whether remediation standards, models, and other guidance were used at Hunters Point that are inconsistent with the EPA remedial program's policies and guidance. If so, we would like to understand whether EPA Region IX consulted with Mr. Walker before allowing use of guidance that is not incorporated in EPA Superfund remedial program guidance, and if so, on what basis the approvals were made. If there was no consultation with Mr. Walker, we would like to learn why not.
-----Original Message-----
From: Daniel O Hirsch [mailto:dohirsch@ucsc.edu]
Sent: Wednesday, February 10, 2016 3:14 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>
Cc: bradley@greenaction.org; Marie Harrison <marieH@greenaction.org>
Subject: Re: setting up meeting or conference call with epa, navy, dtsc about shipyard environmental studies

Lily,

Among the technical issues about which we have questions and for which it would be helpful to have your technical people available who can answer questions in those areas are:

1. How the remediation goals for radionuclides were derived.

2. How the risk estimates for specific estimated radiation doses were derived, and how those doses themselves were derived.

3. The standards that have been and are being used to declare materials to be or not be low-level radioactive waste and where these materials have been and are being sent for disposal or recycling.

4. Questions about pre- and post-remediation risk assessments for both chemicals and radionuclides.

5. Numerous questions about status of characterization, environmental impact review, and remediation for different portions of HPBV.

6. Availability of various key documents.

We have some general questions about the above subject areas, but also detailed specific technical questions

'5. Notes from EJ Task Force Mtg 4/21

Derek – Introduce Danielle Janda, Zach Edwards, Bill Franklin. We have a lot of information. This presentation is brief compared to the full amount of information available.
Our base is broken up into 13 parcels. They help us handle the environmental problems one at a time. Some have come to the end of the environmental process. Some are just starting.
Important thing is transferring property back to the City of SF. It's sitting in a coma. It's quite a magnificent piece of property. Plans for redeveloping include a tremendous amount of parks. It's a place I would want to bring my family. I hope the community is exceited about that.
History – See presentation
Name Hunters Point (2 brothers Robert and Phillip Hunter)
Very deep water directly off Hunters Pt, so good for ship maintenance, so can put dry docks to pull ships in to work on. One of the unique aspects of base. One of the reasons Navy purchased in 1939. Full maintenance, repair, submarine, etc. area. A lot of - we have everything, the whole slew of contaminants. It's been challenging, taken a long time to address a big problem. We're doing a good job. We're starting to get close.
CERCLA – very linear, requires a lot of stakeholder involvement. The Navy wants to be done, we don't want to have to come back in the future. A lot of energy is spent to make sure we know what's out there. That's why after 20 yrs, we're still sampling, still trying to figure out the extent of the problem.
Under CERCLA, Navy is lead agency, so we select the remedy. We enter into agreement with agencies, primarily State DTSC, EPA, Water Brd. As lead State agency, DTSC brings in all the other state agencies.
Petroleum can be done under a different program. We have quite a bit. I'm not going to be talking about the petroleum. When it mixes with other, then we deal with it under CERCLA.
5 yr review – We don't say we're done, we come back to make sure the remediation, the remediation plans that we put in place stays protective. If there's a small spill, we dig it out. Anytime there's contamination that remains in the future, we come back.
Parcels B-1 & B-2 – We reseeded with Calif Nat plants, very pretty, plan open space park in future. Across B-1 & b-2, lot of excavations, installed durable cover. Entire Hunters Pt has durable cover. In many cases it is a failsafe. We've done everything we needed to do, and we put additional layer of soil or asphalt. Keeps dust from getting into community and gives SF clean slate to do their redev. Submarine pens where they would be pulled in. They also did ship work.
Parcel C – Tremendous number of large warehouses. One of the striking glass bldg did repair of periscope. Majority of the work was maintenance and machine shops. Have gw issues and gw remediation and monitoring that's ongoing. Had to take care of through Soil vapor Extraction to suck vapors to remove contamination from vadose zone dry soil.
Parcel D-1 – Most visually striking Hunters Pt constructed – large crane. For a long time was the largest travelling crane in West Coast. Located on top of gun mole pier made out of soil and rocks. Big part of historical things that happened, used crane to take large guns off ships. This site is mostly complete. Ongoing radiological surveys. Once done, will put soil cover
Parcel E – Southern part, a lot of wildlife, planned to be a park. There's been a lot of work out there. Oil reclamation pnds where they used to dump oil into a pit caused envi problems. Many industrial activities. A whole slew of activities. It will take a long time. This is why transfer of properties is so far off.

Parcel E-2 – Big landfill was industrial A lot of different types of things to take care of seismic, water level rise, That will cost a lot of money to take care of . Recently done excavation, radiation screening
Parcel F – is our offshore area. Almost half of Hunters Pt is offshore. Majority of contam re ships parked there and runoff.
Parcel UC-3 used to be a light rail line, some areas we need to excavate
Parcel G – has been completed, square shaped because before had plan for new SF 49'ers stadium.
Summary already transferred
Parcel A, D-2, UC-1, UC-2
UC-1/2 utility corridors – long thin shaped
After the transfers, the Navy will no longer own the property
Make sure the future land users are safe. I have a team of engineers, contractors to do this work. Above and beyond, we are environmental professionals who care about envi & safety. We want to be able to take our family out there when we're done.
Procedures for determining what's safe is very conservative, it's decided by scientist, the environmental community. It's a highly visibe process. It's in our information repository. You can go there, you can find those documents. It's a lot. If you're going there, it's difficult to find. Regulatory agencies important part of the process. We work w/City of SF redev plans. We take into account future land use.
Mandatory 5 yr reviews, Navy responsible for everything we do from now until forever.
Picture of new plans – This plan isn't mine, this will bring local jobs, parks, I'd be excited about it, I hope you are.
Etecia Brown – I am concerned about this image of future plans shown is just a bandaid on a permanent problem. This pollution, toxic waste is never going away completely. That's why you have to monitor every 5 yrs. Also I'm considered by health disparities. What levels of those disparities have you taken into account in determining cleanup. Residents cancer and asthma alarming rates. Several family members all worked at Shipyard. Health disparities is reality. Should not be about how much money it costs. Should be about everybody being healthy. White and wealthy people can still get asthma too. How will you long term make sure health and safety for community?
Derek –I'm sorry for your loss of family members. There's only only, we have our own families. I wouldn't allow anything to remain here as if my own family lived here.
Anthony – This is not right. We been waiting all this time for the Navy to come here. Guy on HChannel 4 news saying he lied about where the soil. Our people's health living on top of the hill like me. Stuff flies into the air, we have kids with asthma cancer. Lives at stake. We've been lied to. Lennar not cleaning up Shipyard the right way.
Tony – When NBC started doing investigative rpt. Took Navy decades to accept responsibility for site. Once work began, independent contractors did bad job miscommunication lies, damages trust in Navy. So even if you tell the truth, people won't believe you. NBC digging around, we see smoke, wonder if fire. How can people tell be sure Tetra Tech doing what they're supposed to do when they turn around and blame subcontractors. If you don't do DOJ or Navy NCIS investigation, how can we find out?
Derek – There are ongoing investigation. You may have already seen investigation by NRC. There are additional investigation that our office is supporting. We can't say anything more because our office won't allow me to say more.

Dr. Tompkins – Dr. Ahimsa & myself on Restoration Advisory Board, had TAG grant. NBC report came out on Tetra Tech and falsification. Are you talking about Parcel G? I read the report 1,600 pages
In last news rpt on the previous (fully employed) Tetra Tech buried material in other previous area designated clean.
Rad testing in buildings – have you investigated/interviewed? Nobody from state, City, etc. have spoken to Mr. Smith re his allegations? What test do you propose to deal with where the radiation? His statement they buried it 3 ft in trenches. Surface scan 1-2 ft would never see it. What are you proposing to do? Are you going to do a stepout/
Derek – have done full investigation not only original allegations, When we found out –Zach Edwards discovered there was something going wrong, there was a Navy investigation. All samples where we thought there was an issue, they were all resampled.
Dr. Tompkins – were they the same samples?
Derek – use mass spec,
Dr. Tompkins –Were they fraudulent
Derek –
Dr. Tompkins – were there 70,000 & 87,000
Zach – I identified the problem – Soil soil samples did not match the site they came from. The reason you know that today is the Navy identified it long before the news story came out. We looked at every sample back to 2008. If any sample questionable w/oversight by independent person to verify samples not questionable.
Eric (I couldn't hear his question)
Zach – Have to meet California regulatory standards
Dr. Ahimsa Porter Sumchai – Founded Rad subcommittee of RAB 2001. Licensed physician, graduated UCSF med school. I expected the Navy presentation would focus on rad. I brought 2005 Navy basewide rad workplan. Showed map – Everything in dark gray is radiologically impacted. Historical Rad assessment (HRA) identified 91 impacted sites. At the time of published only 3 had been cleared.
I distrust Navy. This is map of 1st from HRA. Parcel A never went through all the steps, ROD said no further action. Lead levels were at cleanup levels. Never cleaned it up even though it was very close. Library pulled the original map. At Industrial landfill Navy originally planned to do no further action for most contaminated area on that base.
Radionuclides of concern from Navy's Cs-137, Ra-226, Pb isotope, Sr-90 at Parcel B, C, D, and E.
Tetra Tech 2500 anomalous soil sample 2008-2012 didn't finish investigation to 2014, by time investigation finished, radiation tech Ray Rutkerson died shipyard work known to be exposed to fraudulently cleared rad sites. For 4 yrs people had access to that site. Workers, community members, ATSDR never did statistical anal re risk. Demand OSHA investigate death of this worker. From 2008-2012 there were rad contam soil w/Ra-226 (gamma emitter strips electrons from atoms), workers being exposed they thought was cleared.
Flora Lu (Assoc prof Envi Studies, Provost Acad Head College 9 & 10) Context
Not just a movement, way of looking at problems acad rigorous. Norm of disprop burden in EJ communities. Injustices – distributional – legacy of nuclear testing disprop borne by low-income people of color. Procedural – when consent, opportunities for sustained & substantive feedback are not met. When regs exist on paper but not in practices and what happens between closed doors and shadows. Students have read thousands of pages. Acad Institutions Empower

students how to think. Flora on Board of Directors of Greenaction.
Dr. Dan Hirsch,
Lucien Martin -
Maria Caine
1940 – Navy took over ownership
1946 – Naval Radiological Defense Lab – dispose contam boats from nuclear testing
1974 – Triple A machine shop – indicted for illegal disposal of haz substances at Hunters Pt
1989 – NPL
EPA Superfund – list of most dangerous contam sites in US
Responsibility – Navy, EPA, DTSC, City of SF
Key findings
-Superfund law requires Hunters Pt must be cleaned up consistent w/EPA Superfund guidance
Cleanup has been using standards that violate
Navy is using standard of 25 mrem per year = 12 of 12 chest xrays/yr
EPA didn't catch or allow happen
Using 40 yr Atomic Energy Commission guide
Navy is using RESRAD model even though EPA guidance requires use of its calculator
Navy shipping out for recycle & disposal, waste w/rad contam
Navy says using 1991 vs current PRGs
Results – cleanup standards are far more lax
Tetra Tech – false samples 4/14 – deliberately falsified readings – cannot trust
Tetra Tech continues working
Contract had not ended, tetra tech allowed to keep going
NRC Ltr – "deliberately falsified" in Parcel C, warranted investigation and intervention.
Extremely concerning
False samples
CERCLA 120(a)(2)
25 mrem/yr = 12 chest xrays/yr
AEC 1.86 (1974) 42 yr old guide, EPA said guidance is not to be used, but Navy is using it.
Where does the waste go? Have not been able to find standards Navy uses to transport waste.
Not in any form on Envirstor site. If you don't know, then you can't know if it's safe to transport through your town.
Level I & Level II Waste Disposal sites.
EPA PRGs Current EPA PRG
Factors are greaterRadium 226 – 259 times more protective.
Levels substantially higher. Ra-226 killed Marie Curie and her daughter.
Eric – cleanup to residential standards- not sure all parts of the site?
Dan Hirsch –
Hunters Pt Ambient levels
Durable cover – cover up vs. cleanup – threat to future generations
Instead of clean up, Navy is relying upon institutional controls, not allowed to garden, dig, build enclosed structures
Conclusions – cleanup efforts not consistent w/EPA guidelines

- Out of date standards
- Safety concerns
- Disposal of rad materials in unlicensed sites

- Cleanup vs cover up

Dan Hirsch – Impacted community – Agencies supposed to remedy – don't tell the whole story. Read gov't documents from back. We have looked at footnotes & details. This is a Superfund site, one of most contam sites in country, required by law cto be cleaned up consistent w/Superfund guidance. That has not occurred. Standards for buildings & equipment choice of 2 standards 25 mrem/yr. Doctor balances risk of chest xray vs cancer risk. USEPA has declared 25 mrem yr is not protective of public health and this standard is not to be used at Superfund site. It is 1000 times the risk that EPA aims for at Superfund sites. Navy should not be using.
Reg Guide – AEC not existed since 1975. Never designed for contam site. Designed to see what kind of sensitivity can expect from handheld devices in 1965.
Navy said used EPA's PRGs for soil. Table – compare w/1991 EPA goals – if compare numbers
Ra-226 – 260 times higher
Thorreum 487 times higher
Plutonium 72 times higher
EPA didn't catch or condone.
EPA's Regional HQ is here in SF.
Tetra tech – found by NRC Office of Investigation – "deliberately falsified" soil conditions.
Using standards much cleaner than current standards must be used.
Navy standards for buildings and equipment – equipment can be resold, metals can be recucled, waste can go out for disposal. Standards are inflated. Under US law not allowed – Attempt to create new requirement "Below reg concern level" but did not pass law.
Shipped to places not licensed, e.g. Kettleman City, Buttonwillow.
Why did a group of students have to go through these doc's and discover. Why weren't we protected by agencies? Why in 5 yr review did you not catch this? This has gone on year after year? EPA became aware because of the students?
Navy – I didn't hear a word in the presentation by Tetra Tech? How could you show up and not talk about it, knowing that people would ask you? This is deeply troubling?
Our program provides assistance to communities impacted? You should not have to rely on us.
A bunch of parcels released thought were clean.
How do you go back and fix that?
Regan Patterson – PhD student UC Berkeley –
Ronald- Navy - How can transfer constantly go on when not clean? I'm a transporter
Derek – This is a lot of information that is hard to understand.
Eric – please avoid making pejorative statements about audience
Derek – 2 parcels already transferred were only housing. Other 2 parcels were utility corridors where any issues have been removed.
Ronald – Why is City of SF in such a rush to take it over and not make sure that everything is clean
Derek – City is making sure this is clean.
Ronald – we have known for a while that Tetra Tech is forging paperwork. Transfers
Derek – no one is more upset re Tetra tech than I am
Ronald – Landfill should be taken out and not capped
Dr. Porter- labs of NRDL were on Parcel A on Crisp Ave. were on Parcels that transferred last yr had been taken Bldgs 813, 826, scientists poured rad waste into drains, that is why they had to pull drains.

Michael – 1.4 million cubic tons of toxic waste. All these tests on E-2, according to data you did a lot of tests on E-2, we were told the stuff was so bad Navy was afraid to take it out bc it was too dangerous. That was before sea level rise. They cleaned out presidio, Why won't they clean out in Bayview?
Derek – I can't really talk about the Presidio. I can say that E-2 has been sampled is a landfill. What do you do with a landfill? If you have to dig it out, have to bury it somewhere else. Very safe, taken into account sea level rise, seismic. Cap is very safe.
Michael – Will Navy do some more testing?
Derek – After work is completed, scan the surface to make sure to remove any high level of radiation. Then they put the cover and scan again. Ii will use this park when it's done' It is going to be safe.
Dr. Tompkins – I chaired the chemical committee in RAB. 1992 did you do any core samples after the 2000 fire burned 105 days, Navy never touched cap again. You told RAB board put the cap to smother, didn't test air for 27 days. Didn't parallel test inside dioxin. You sampled for trapping the gas and do analysis on the trapped gas that you capture in the filter. Navy did not & had not taken core samples to verify. Lori Loman DoD 199? – 20% of E-2 rad impacted. Last PR mtg planned to put seawall in mud, not in bedrock. Any superfund site in US on red diffraction zone w/ 20% volume of soil. I don't know of any. 86.5 % of SF wanted that site cleaned up to residential levels. I helped to organize a vote. You & regulators overrode and said want to cap. Falsely represented to RAB was temporary. Now say want to control, not get rid of it. Never heard from navy when earthquake comes.
Derek – There's a lot of information. We don't have time to address even half of the points. Soil cover being put in place now. Will
1,600 yrs half life for Polonium. 1,600 yrs maintenance, wouldn't be more advantageous to take it away. If it doesn't go here, will need to be somewhere else.
Marie – I need to assure my community you will come back prepared to answer our questions, we have night & daytime mtg. Pick a date to give you the time that is necessary to answer our questions? Will you return & select a date?
If you have any questions, call me, email me.
Derek – In this format, I think it's much better to get the questions ahead of time. Today everybody's talking over everyone, 10 questions deep, it's really difficult to give a meaningful answer
Etecia – My family is going to remain. My children's, children will be here. I am personally concerned. I have a connection to this community. You said Hunters Pt belonged to brothers, but Hunters Pt belonged to the Ohlone people. Please don't lie to people and say you would bring your children to the park play. There are signs that say do not eat pregnant women and children to eat the fish, then how can you say it's safe. The cleanup has been going on for 27 yrs, it has still not been cleaned up to these standards. It's not enough to nod your head and put up data. You said people should send you email, half people cannot access computer
People get slow responses when try to call Navy.
Questions ahead of time doesn't make any sense. Whether one parcel or another doesn't matter bc it's exposing everyone through asbestos into the air. You are not from here. It's not acceptable to say send an email or call us. We need to see community in person and not be afraid of the truth. No money should be worth human lives to you. It makes you no better than Hitler.
How can we be sure that Tetra Tech is not going to further provide false information? What can

you comment on levels of cleanup goals being used in the process? Is that data wrong? Is there some kind of misunderstanding?
Derek – investigation ongoing, will not be put into use until after investigation, if there is
Speaker? What about those already transferred?
Tetra tech has to finish contract from before, they have not gotten new contracts since 2014.
We hired independent oversights - We have resolved everything known to date.
Navy doesn't just evaluate EPA guidelines, we evluate state, etc. across the board select the most conservative. We have to be consistent, doesn't mean have to follow everyu single details.
EPA's been with us along the way, they've been verified with the current EPA
EPA reviews are after the fact. But law requires must set standards,
After the fact, af

Violate by averaging,
EPA uses incremental vs entire
Other errors
RODs 2012 – cleanup standards employed are old ones. That are much less protective. Over the years, Nat'l acad of sciences determined ionizing radiation, EpA consistently – Hunters Pt cleaned up to standards that were weaker. EPA should not evaluate after the fact
Stunned EPA own estimates – risk was 1 in 10, after cleanup estimate risks as 4X10^-4 which is outside EPA's acceptable risk range. Should be 1 in a million. Problem is chemicals as well as EPA didn't do in reviews
I hope that EPA will fix the internal problem that led to this debacle. I hope EPA, DTSC doesn't view as PR vs Public Health problem.
Derek – Showing still safe.
Dan – Navy should not prejudge for PR
10 yrs from now likely find not good enough
Moffett Field – TCE after declared safe had to amend bc underestimated risk from vapor intrusion. Over time standards become tighter and tighter.
Dan – Derek would not commit in advance. Has been asking for document, don't get them. If believe not safe, then no reason not to provide document quickly or come and answer direct questions. If really safe, then should be willing to come whenever ask. Then we ask for documents, like where the waste went, should be readily available, and not something to hide
Derek – we come to community multiple times a yr, sign up for our mailer, you'll get reminded when these happen. We have 4 bus tours. We firmly believe this is safe.
Dr. Tompkins - We view as PR piece. When we had RAB –

- Why given the fact that you have a ltr from NRC, saying falsification, like My Lai incident. They made $300M. Why not just get rid of them since they have an established history for screwing it up?
- To regulators – What is your position on this. Immediate halt?
- Sewage cleanup, any dust suppression – moisture mist, not seen any of these at Shipyard

Ahimsa Sumchai – Why no criminal charges filed in face of fraud. 3 people charged in Flint, MI criminally for coverups re lead in water. Substantiated w/criminal fraud
Derek – NRC is first to come out w/findings. Both criminal and civil looking into this, not yet come out.
Dr. Sumcha – 2008 – why took so long

Derek – I agree taking too long
Dr. Tompkins - Why can't get hire someone else?
Derek – must follow Fed contracting

'6. Notes from EJ Task Force Mtg 5/18 (DRAFT writeup 5-23-2016)

Disclaimer – This is not a transcript, but a rough summary in which I paraphrased and condensed.
Summary of concerns:

- Because Tetra Tech falsified samples, we don't trust that we are safe.
- EPA and DTSC should do criminal investigations in coordination with the Navy's investigations.
- EPA should collect samples independent of Navy, and they should be underground, not just surface
- Radioactive material could be going to the landfills in Buttonwillow and Kettleman City, both EJ communities
- The Navy should come back to the EJ Task Force Meetings and answer questions
- Treasure Island is related to Hunters Point and the EJ Task Force should also address Treasure Island problems.
- The Navy should bring back the RAB

Details:
Tall thin man (I forgot his name) – Roger, what is DTSC doing about the Shipyard contamination? We can't trust the samples, and people's lives matter.
Michael Dennis – This is criminal, and DTSC should be investigating.
Roger Kintz – I don't believe the DTSC is doing a criminal investigation, but we have a staff person working on the Shipyard with EPA to oversee the Navy
Lily Lee – The Navy is the lead on the cleanup. EPA and DTSC oversee the cleanup. The Nuclear Regulatory Commission and the Navy and other agencies are doing investigations. Enforcement mattes such as this are confidential. But in the mean time, in my role and the role of the DTSC, our priority is making sure that people are not exposed to anything harmful.
The Navy caught the Tetra Tech problem. Tetra Tech went back to dig out the samples that looked like they could have been collected incorrectly while they Navy watched. Then they dug out, did more cleanup, in three areas where contamination was higher that what the results before had shown. The EPA and DTSC, and California Department of Public Health reviewed the corrective actions taken.
In addition, we have been looking at multiple lines of evidence, data collected by people other than Tetra Tech, to see if people are exposed. EPA did a surface scan all over the base, and I gave those results to Marie. I have a copy here too. It showed no levels above the surface that should be a health concern. Also the Water Board looked at groundwater data, after Marie asked about it. They found no levels of radiation that were a health concern, except in one area that has not yet been cleaned up.
Tony Verreos – The Navy said that investigations are happening and they can't tell us anything, and I understand that. But that is very frustrating that it seems as if they're not doing anything in the mean time. I know that the Navy is doing investigation, but I hope you understand that it would make us feel a lot better if we knew that the EPA is doing a criminal investigation and working with the Navy.
Lily Lee – I can neither confirm nor deny whether EPA is doing a criminal investigation or not. I'm sorry I understand that it must be frustrating to you to not get more information. But

enforcement matters are confidential to avoid compromising the integrity of any investigations. Enforcement is a different part of my office. But in my role, I am looking at protecting human health and the environment. So that is why we are looking at multiple lines of evidence.
Marie Harrison – I have asked for and I'm still waiting for the report on EPA's sampling. I don't mean looking at paper documents, I mean digging into the ground. Also, we gave the Navy Dan Hirsch's presentation. When will the Navy meet with us again? That is very important. They need to answer the questions from the students. I'm very concerned about contamination getting to Buttonwillow and Kettleman City. These are small and poor communities where farmworkers may not speak English and they may not be protected.
Lily Lee – The EPA has not collected its own samples. But Tetra Tech did look at 87,360 samples, the Navy checked to see which ones looked like they might have come from the wrong place, and they watched while Tetra Tech went back to collect the samples again at 386 places. And then Tetra Tech cleaned up more. I gave you the report about the scan survey.
Tony Verreos – But if Tetra Tech left contamination buried, your scanning above the ground would not be able to catch that right?
Lily Lee – Yes, you are right. I didn't mean to imply that the surface scan could tell what was left deeper underground. But it is an indicator that if people are walking around above ground, they are not exposed to harmful radiation.
About the students, EPA reviews all of the individual Navy radiation cleanup reports using the latest version of the EPA's risk model. These use the latest science to make sure people are safe. I had explained this to the students in several emails, which I have printed out here if you want to see.
Who? Was it Tony Verreos? – What about those old numbers the students showed?
Lily Lee – The students did show some old numbers, but what I had told them several times is that EPA does use the latest version of our risk models to review every cleanup report. I gave them examples of EPA's reviews. I have a copy here if anyone wants to see it.
Carol Harvey – Wait- I'm confused, did you say the students' results are wrong? Or the Tetra Tech results are wrong?
Lily Lee – Tetra Tech's results were wrong, so they went back to fix it.
Tall thin man – It's people's lives that matter. So many people have cancer. Children have small bodies and can be hurt more. Elderly people also could be hurt more. People's lives matter. That's why I come to these meetings.
Lily Lee – I agree, and that's why our scientist take into account children, seniors, and people with compromised immune systems when making sure the cleanup is done at a level to protect them. And that's why I have come to every single meeting of the EJ Task Force.
Mr. McCarthy – I used to be on the RAB and that was an important way to get into these details and the data. I've been looking at these issues since the 1990's, and I think this problem is coming out now because of what I said back then. The Navy didn't dig deep enough. They did an HRA [Health Risk Assessment]. I don't know if they really cleaned up everything in the HRA. We should bring back the RAB
Carol Harvey – It was illegal that the Navy dissolved the RAB. They shouldn't have been allowed to do that.
Lily Lee – Mr. McCarthy, I know we've talked a long time about your concerns on the phone before, so I know you know my phone number, and I'm happy to show you the data about the cleanup and how it relates to the HRA.
Carol Harvey – It was illegal to dissolve the RAB. Treasure Island is very important. The

problems are related to Hunters Point.
Marie Harrison – In my heart I know that Treasure Island is connected to Hunters Point and I feel for the people there. I think it's very important to connect the concerns of Treasure Island to the concerns of Hunters Point. Both are the Navy. The Navy needs to come back and answer our concerns.
Carol Harvey – Marie, I know you've been wonderfully supportive. I didn't mean to say that you're not. I just wanted to say that the Treasure Island problems are important. This is a great forum to talk about these issues. I think we should talk about Treasure Island here.
Etecia Brown – I need to make a statement, not necessarily ask a question. You don't live here. I live here, and my parents and grandparents lived here. My family members have gotten cancer. I want to raise my children here, and I want my grandchildren to live here. And they should be safe. This is not a personal comment about any individual, but about government in general. You are just coming to these meetings because it's your job. Not because you could possibly know what it feels like to live here. You have to really care about this community. It's our health and our lives.
Marie Harrison - We're running out of time, we need the Navy to come back so we can talk about this some more and they can answer the questions. We've got to end this meeting on time. Are there any topics for the next agenda?
After the Meeting, individual conversations:
Michael Dennis – The landfill fire burned for a long time. They couldn't put it out until they built another cap. It's because of all toxics that are still buried there. This was the biggest national radiation test site in the country. Dead radioactive animals and other things are buried there. The Navy did not take samples in the middle. The Navy told me confidentially that it's because they're afraid of what they might find. You need to dig it all out and take it to Idaho.
Lily Lee – The Navy has already put 4 feet of clean fill and other cover on that section of the landfill. The plan is to add 2 more layers.
Michael Dennis – Earthquakes will tear apart the landfill. You need to dig it all out. The Navy did not want to dig it out because they have secretly estimated the cost and they don't want to pay.
Lily Lee – The landfill is designed to withstand a 8.0 earthquake. The costs are in the public document. The Navy did not want to have to dig all this out and haul the waste through the neighborhood and end up disposing of it in another neighborhood because it just moves the same problem to another place.
Barbara? - I need the contact people for Treasure Island at the EPA. The Navy at Treasure Island is not really engaging communities. Not like here at the EJ Task Force. This is much better.
Lily Lee and Deldi Reyes – The DTSC is the lead at Treasure Island, not EPA. We'll find the right person for you to contact.
Kathryn Lundgren – If the EPA is in charge at Hunters Pt, why shouldn't it also be in charge at Treasure Island? Isn't Hunters Pt called Treasure Island Annex? I know Nathan Schumacher, is he the person you would give me to contact?
Mr. McCarthy – I want your card.
Lily Lee – Here's my card. I know we talked before. I'm still at the same number, and you can call me any time. Also the Navy has regular community meetings that we advertise at EJ Task Force Meetings. You could come to those meetings are ask all your questions there too.
Mr. McCarthy – Yes, well, I haven't made it to those meetings lately. I've been busy with

election work. This election is terrible. . .
Carol Harvey – Thank you for explaining things to us. You were very clear.