Message (Digitally Signed)

From: Robinson, Derek J CIV USN NAVFAC SW SAN CA (USA) [derek.j.robinson1.civ@us.navy.mil]
Sent: 10/28/2021 8:38:26 PM
To: Greger, Robert@CDPH [Robert.Greger@cdph.ca.gov]; Sanchez, Yolanda [Sanchez.Yolanda@epa.gov]
CC: Han, Terry@CDPH [terry.han@cdph.ca.gov]; Fassell, John@CDPH [John.Fassell@cdph.ca.gov]
Subject: RE: The Navy Uncovered Strontium — 90...and they want y...
Attachments: smime.p7s

Thanks for sharing Robert!

From: Greger, Robert@CDPH <Robert.Greger@cdph.ca.gov>
Sent: Thursday, October 28, 2021 12:01 PM
To: Sanchez, Yolanda <Sanchez.Yolanda@epa.gov>
Cc: Han, Terry@CDPH <Terry.Han@cdph.ca.gov>; Robinson, Derek J CIV USN NAVFAC SW SAN CA (USA) <derek.j.robinson1.civ@us.navy.mil>; Fassell, John@CDPH <John.Fassell@cdph.ca.gov>
Subject: [Non-DoD Source] FW: The Navy Uncovered Strontium — 90...and they want y...

Yolanda

I received confirmation from Genova Diagnostics today that they base their strontium determination on Sr-86 rather than Sr-88. They referenced issues with using Sr-88 due to interference with gases used in their mass spectroscopy process.

Feel free to share this email with other workgroup members as you see fit.

And thanks for your editorial assistance.

Rob

L. Robert Greger
Senior Health Physicist
California Department of Public Health
Radiologic Health Branch
Cell 714-831-7203
Fax 916-636-6341
robert.greger@cdph.ca.gov

From: Greger, Robert@CDPH
Sent: Thursday, October 28, 2021 11:51 AM
To: Ahimsa Porter Sumchai MD PD <ahimsaportersumchaimd@hunterspointcommunitybiomonitoring.net>
Cc: Fassell, John@CDPH <John.Fassell@cdph.ca.gov>
Subject: RE: The Navy Uncovered Strontium — 90...and they want y...

Dr. Sumchai

While I do see that there were radionuclides, including Sr-90, identified in the Navy's Parcel F Feasibility Study, I am not able to conclude that the Sr-90 identified in that Study is connected to the nonradioactive strontium above the reference range in the CUEP that you enclosed of a Building 830/831 employee. As I have communicated previously, the CUEP analyses for most elements are based on quantification of nonradioactive isotopes, and that is the case for strontium (based on nonradioactive Sr-86 by Genova Diagnostics). The presence of nonradioactive Sr-86 does not predict the presence of Sr-90 or any other radioactive isotope of strontium inasmuch as strontium has no naturally

occurring radioactive isotopes. I have attached my 8/10/20 email to you that goes into more detail in this regard. Refer to paragraph 5 in that email in particular.

Additionally, out of six CUEP results of Building 830/831 employees that I have seen, the one in your email is the only one that shows nonradioactive strontium above the Genova Diagnostics reference range. If there was a common exposure pathway to nonradioactive strontium among these Building 830/831 employees, I would expect to find a higher percentage of Building 830/831 employee CUEPs with elevated nonradioactive strontium in their CUEP results.

Your 9/22/20 email references 14 CUEPs of Building 830/831 employees. It would be beneficial to my investigation if you would be able to provide me the eight CUEPs of Building 830/831 employees that I don't have (I don't need any employee names). The six CUEPs I already have can be identified by the following creatinine concentrations: 43.38, 56.32, 59.46, 64.55, 128.73, and 195.92.

Take care.

Rob

L. Robert Greger
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California Department of Public Health
Radiologic Health Branch
Cell 714-831-7203
Fax 916-636-6341
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From: Ahimsa Porter Sumchai MD PD <ahimsaportersumchaimd@hunterspointcommunitybiomonitoring.net>
Sent: Sunday, October 24, 2021 10:54 AM
To: Greger, Robert@CDPH <Robert.Greger@cdph.ca.gov>
Cc: Ahimsa Porter Sumchai <AhimsaPorterSumchaiMD@HuntersPointCommunityBiomonitoring.net>; Beltran Sandra <sandra@bonnerlaw.com>; Jackie Lane <Lane.Jackie@epa.gov>; Waterhouse, Carlton <Waterhouse.Carlton@epa.gov>; James Dahlgren MD <dahlgren@envirotoxicology.com>
Subject: Re: The Navy Uncovered Strontium — 90...and they want y...
Importance: High

EXTERNAL EMAIL. Links/attachments may not be safe. To report suspicious emails, click "Report Phish" button.

Thank you for your response Mr. Greger, but you missed the point if you did not note the Parcel F Feasibility study identifies elevations in radionuclides detected in the South Basin region adjacent to Building 830. The CUEP presented in the article that detects elemental strontium above reference range is that of a long term UCSF Building 830 employee. I am attaching pertinent documents I suggest you familiarize yourself with that are summarized in my medium article along with photos taken of the western fenceline separating Building 830 workers and the Hunters Point residential community from deep soil excavations being conducted at the Parcel E-2 shoreline, landfill and South Basin region. Let's stay connected. Environmental toxicologist and expert witness in the "Erin Brokovich case" - Hinkley vs PG&E - has agreed to offer consults for the Hunters Point Biomonitoring Program.

Ahimsa Porter Sumchai, MD - Hunters Point Biomonitoring Foundation Inc

Element	Reference Range	TMPL	Reference Range
Lead	0.5		<= 1.4
Mercury	<dl		<= 2.19
Aluminum	15.4		<= 22.3
Antimony	<dl		<= 0.149
Arsenic		>231	<= 50
Barium	3.6		<= 6.7
Bismuth	<dl		<= 2.28
Cadmium	0.98		<= 0.64
Cesium	5.3		<= 10.5
Gadolinium	<dl		<= 0.019
Gallium	<dl		<= 0.028
Nickel	2.17		<= 3.88
Niobium	<dl		<= 0.084
Platinum	<dl		<= 0.033
Rubidium	1,391		<= 2,263
Thallium	0.980		<= 0.298
Thorium	<dl		<= 4.189
Tin	0.20		<= 2.04
Tungsten	0.392		<= 0.211
Uranium	0.023		<= 0.026

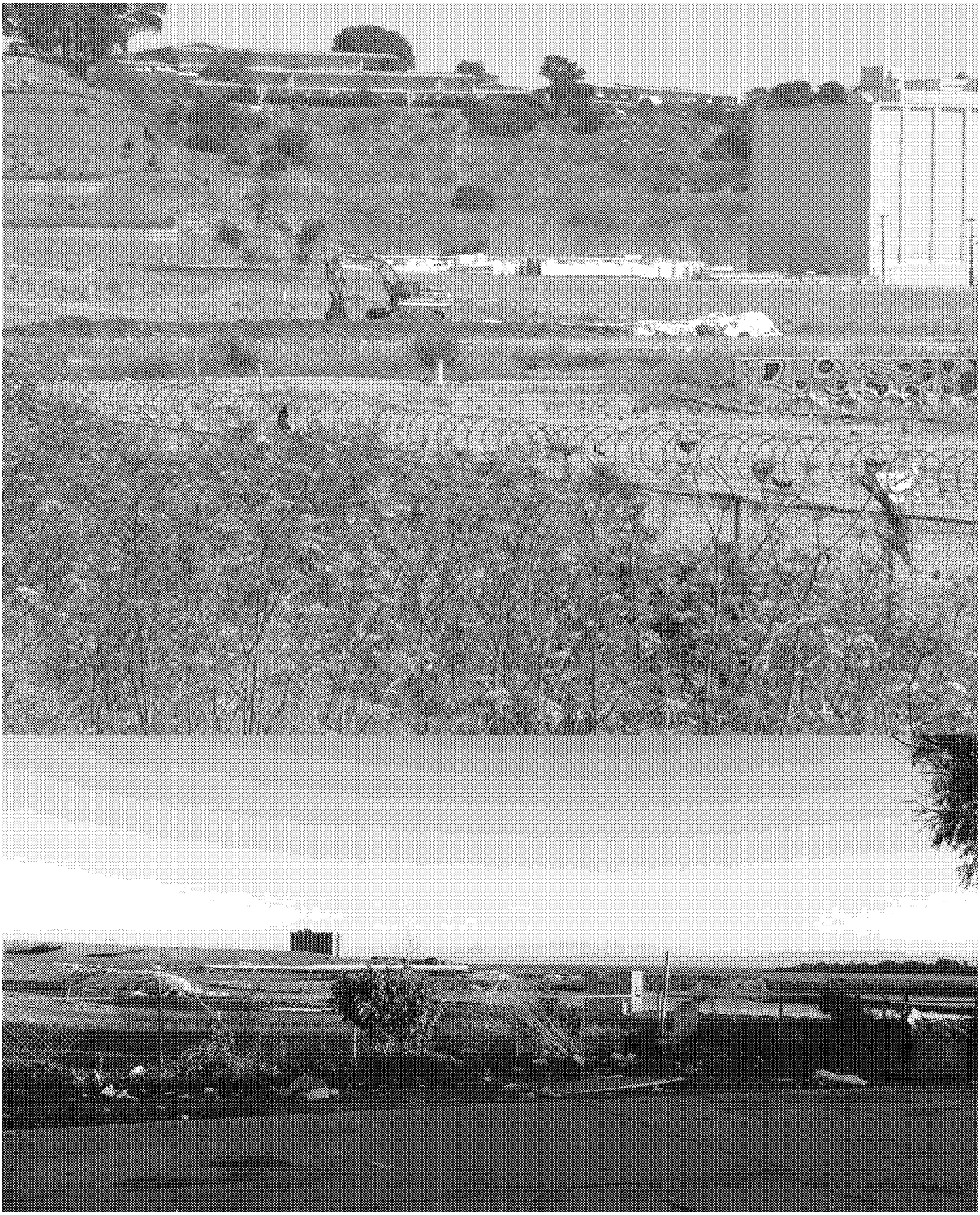
Element	Reference Range	Reference Range
Chromium	4.3	0.6-9.4
Cobalt	2.05	0.01-2.60
Copper	11.6	4.0-11.4
Iron	29	5-64
Lithium	32	9-129
Manganese	3.01	0.03-1.16
Molybdenum	70	15-175
Selenium	77	32-333
Strontium	368	47-346
Vanadium	9.5	0.1-3.2
Zinc	646	63-688

Results in mg/g creatinine

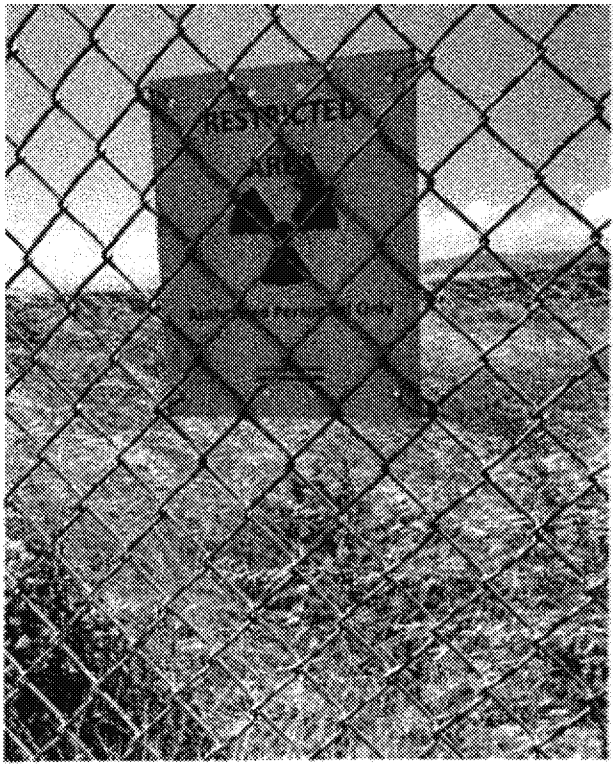
Element	Reference Range	Reference Range
Calcium	207	37-313
Magnesium	162	41-267
Potassium	2,609	759-4,653
Sulfur	794	367-1,328

Collection Information

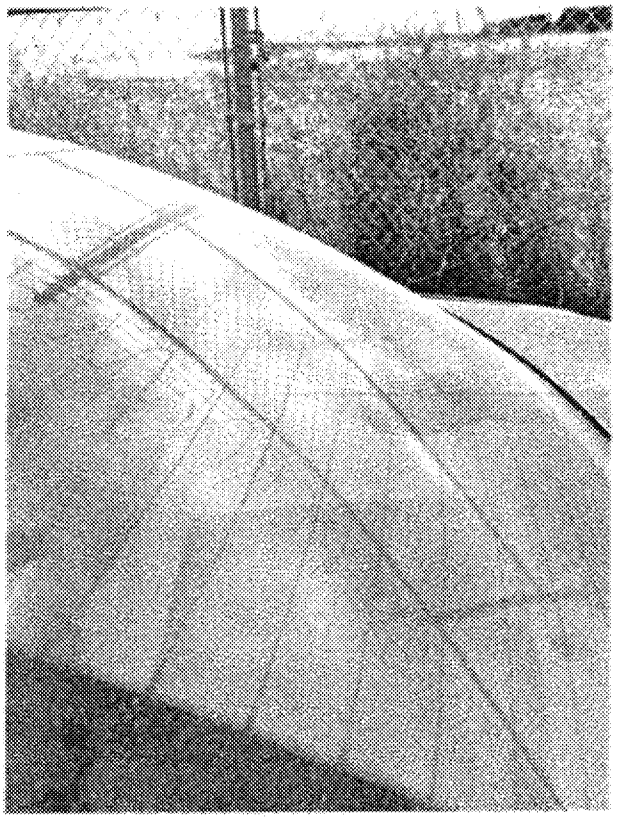
08.10.2021 04:19



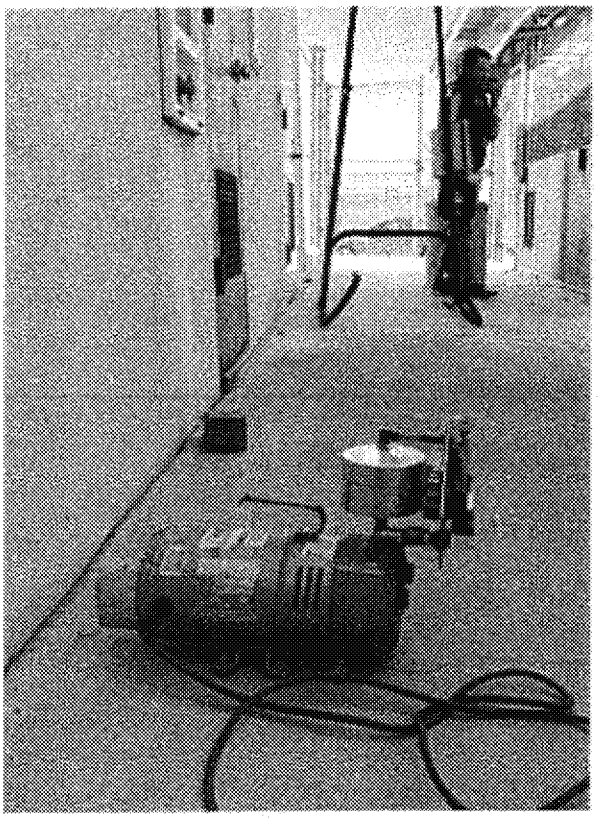
Dust from E-2 blowing onto UCSF property



Sign between E-2 & UCSF property



Dust accumulating on UCSF staff cars



Air monitoring pump

HP BIOMONITORING
5021 3rd Street
San Francisco, CA 94124

Ahimsa Porter Sumchai MD PD
PI & Medical Director
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(415) 859-5471

https://www.alignable.com/san-francisco-ca/hunters-point-community-biomonitoring-program

Primer on Radionuclides Commonly Found at Superfund Sites

What is the purpose of these fact sheets?

The information in these fact sheets is intended to help the public understand more about the various radionuclides commonly found at Superfund sites.

What information is in these fact sheets?

These fact sheets answer questions such as:

- How can a person be exposed to the radionuclide?
- How can it affect human health?
- How does it enter and leave the body?
- What levels of exposure result in harmful effects?
- What recommendations has the U.S. Environmental Protection Agency (EPA) made to protect human health from exposure to radionuclides?

How does EPA calculate risks to human health from radiation exposure at Superfund sites?

EPA assesses the health effects of radiation by calculating **excess cancer risk** caused by radioactive contamination. Excess cancer risk is the probability that a person exposed to the contamination will develop cancer over a lifetime.

EPA considers excess cancer risk to be any risk above the **protective range**. The protective range is a probability that a person exposed to radioactive and chemical contaminants will have between a one in 10,000 and a one in a million chance of developing cancer, known as the 10^{-4} to 10^{-6} cancer risk range.

It is important to note that even in the protective range, most people will have less of a chance of developing cancer than these numbers would indicate. The

EPA may also calculate health risk from exposure to radiation in dose per year, measured in **millirems per year**. Some regulations at Superfund sites are based on what EPA has calculated to be acceptable dose limits per year.

What is an Applicable or Relevant and Appropriate Requirement (ARAR)?

An ARAR is an environmental law or regulation from the federal government or a state government that addresses conditions or a particular cleanup technology at a Superfund site.

All actions to clean up contamination at Superfund sites must be protective of human health and the environment and comply with ARARs, unless a waiver is justified. ARARs are often the deciding factor in establishing cleanup levels at Superfund sites.

What radionuclides are listed in these fact sheets?

The following radionuclides are those most frequently encountered at EPA Superfund sites and are described in a series of EPA fact sheets.

- Americium-241
- Cesium-137
- Cobalt-60
- Iodine isotopes
- Plutonium isotopes
- Radium isotopes
- Radon
- Strontium-90
- Technetium-99
- Thorium isotopes
- Tritium
- Uranium isotopes

What if I want More Information?

If you have questions about the radionuclides described in this document, you can contact Stuart Walker of EPA by e-mail at walker.stuart@epa.gov or by telephone at (703) 603-8748.

TABLE 4-3
Summary of Individual Sediment Samples Compared to Their PALs Phase 1, 2a, 2b Data
Addendum to the Feasibility Study Report for Parcel F, Hunters Point Naval Shipyard, San Francisco, California

Radionuclide	CSM	Max Detected Concentration (pCi/g)	PAL (pCi/g)	Background Concentration (pCi/g)	PAL + Background Concentration (pCi/g)	No. of Exceedances of Pal +Background	Station(s) Exceeding PAL
Cs-137	Intertidal	0.2480	1.28	0.0747	1.355	0	NA
	Subtidal	0.2450	425		425.1	0	NA
Co-60	Intertidal	0.0452	0.364	0.0426	0.4066	0	NA
	Subtidal	0.0884	99.9		99.94	0	NA
Pu-239/240	Intertidal	0.0422	67.8	0.0173	67.82	0	NA
	Subtidal	0.7530	68.2		68.22	0	NA
Ra-226	Intertidal	1.0600	1	0.6039	1.604	0	NA
	Subtidal	1.3800	22.4		23.00	0	NA
Sr-90	Intertidal	4.5600	9.37	0.1747	9.545	0	NA
	Subtidal	0.7590	9.93		10.10	0	NA
U-235	Intertidal	0.6720	4.22	0.2342	4.454	0	NA
	Subtidal	0.6970	101		101.2	0	NA

Notes:
[a] Maximum concentration equals the method detection limit substituted for a non-detect value. Concentration in table was not detected.
[b] Maximum concentration was reanalyzed using an archived sample during the Phase 2b data gap investigation. The reanalysis result from Phase 2b replaced the result from Phase 1.
Data Source: Battelle and Sea Engineering, 2013, Table 3-4 (Intertidal and Subtidal), Table 3-8, and Appendix B1-2 and ITSI Gilbane & SAIC, 2013, Table 3-4 (Intertidal and Subtidal) and Appendix B1.

https://semspub.epa.gov/work/09/100006005.pdf

Https://www.commiteetobridgethegap.org/wp-content/uploads/2019/12/CBG_Parcel_F_Comments.pdf

On Oct 22, 2021, at 1:45 PM, Greger, Robert@CDPH <Robert.Greger@cdph.ca.gov> wrote:

Dr. Sumchai

I don't mind receiving emails such as the one below, but to preclude any misunderstanding regarding actions on my part based on such emails, I would like to remind you that my jurisdictional interest at HPNS is limited to the UCSF property, including buildings 830 and 831).

Take care

Rob

L. Robert Greger
Senior Health Physicist
California Department of Public Health

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-----Original Message-----
From: Ahimsa Porter Sumchai MD <[redacted]
Sent: Friday, October 22, 2021 8:47 AM
To: Greger, Robert@CDPH <Robert.Greger@cdph.ca.gov>
Subject: The Navy Uncovered Strontium — 90...and they want y...

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https://urldefense.com/v3/__https://ahimsaportersumchaimd.medium.com/the-navy-uncovered-strontium-90-and-they-want-you-to-think-its-okay-it-s-not-444244e61146__;!!AvL6XA!iuGWTjm-X4sSh5-SmBraLiiy7Rgyw9fmS-pkSumSBmou3c46XiyH69aU7yrKtdLSRrF2TUU$

Ahimsa Porter Sumchai MD
Golden State MD Health & Wellness
Sent from my iPhone