

From: PerezSullivan, Margot <PerezSullivan.Margot@epa.gov>
Subject: RE: Questions about TRW Microwave
Date: July 22, 2021 at 3:16 PM
To: Ashley Gjovik <ashleygjovik@icloud.com>

MP

Hi Ashley, I'm meeting with the site team next week, regarding the reporter you're working with I'm the right person to work with. Thanks so much for your patience – we will be touch!

Margot Perez-Sullivan
U.S. Environmental Protection Agency
D: 415.947.4149 C: 415.412.1115
E: perezsullivan.margot@epa.gov

From: Ashley Gjovik <ashleygjovik@icloud.com>
Sent: Tuesday, July 20, 2021 5:07 PM
To: PerezSullivan, Margot <PerezSullivan.Margot@epa.gov>
Subject: Re: Questions about TRW Microwave

Hi Margot! Thanks....I see the May test was 10hr.

Ok, so my question about when the last time a 24hr+ indoor air test was performed in the TRW Microwave/825 Stewart building where the COCs were within the acceptable EPA range for indoor air in industrial buildings.... Is NEVER. They've always failed. Got it.

Did you talk to Apple & NG about the cracks in the floor and floor sealing plan? They told me they didn't notify the EPA about and didn't plan to, despite me telling them they probably are required too. They kept saying everything was "voluntary."

If the journalist wants to talk to someone at the EPA about all this, who should I have them reach out to? It's a very big publisher, so I assume they will want to chat. You?

-Ashley

—
Ashley M. Gjovik

Juris Doctor Candidate & Public International Law Certificate Candidate, Santa Clara University, Class of 2022



On Jul 20, 2021, at 1:05 PM, PerezSullivan, Margot
<PerezSullivan.Margot@epa.gov> wrote:

Hi Ashley,

Thanks so much for your patience.

The May 2015 indoor air testing was reported in a June 2015 report available on the EPA TRW Microwave website
here: <https://semsnub.epa.gov/src/document/09/1158562>

more: <https://www.epa.gov/record-decision/1991-000002>.

Your inline screenshot below is from the 1991 Record of Decision for the site, which shows the maximum detected soil concentrations for ethylbenzene at 2 milligram per kilogram (mg/kg) and for toluene at 3 mg/kg. The concentration values are from 30 years ago and during that time the contaminated soil was removed. Therefore, these chemicals are not documented in the Record of Decision as chemicals of concern.

For your reference, the attached California Environmental Protection Agency Office of Environmental Health Hazard Assessment has adopted EPA Region 9's screening values for TCE. TCE is the primary chemical of concern for the site and since 2013, subsequent to the remedial actions taken at the building, TCE indoor air sample results have been less than EPA's applicable health risk screening values.

I hope this information is helpful.

Thank you!
Margot

Margot Perez-Sullivan
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From: Ashley Gjovik <ashleygjovik@icloud.com>
Sent: Monday, July 19, 2021 6:39 PM
To: PerezSullivan, Margot <PerezSullivan.Margot@epa.gov>
Subject: Re: Questions about TRW Microwave

Hi Margot,

Checking in — any update? I'm locking this down with a national journalist.

P.S. if you haven't already connected the dots, the "responsible party" for the Sunnyvale TRW Microwave site is *Northrup Grumman*, who's ex-CEO and ex-President (and ex-CFO of TRW Microwave), Ronald Sugar, is a current & long time Apple board member (10yrs+).

So the guy who was running the companies responsible for this site's pollution, clean-up, vapor intrusion etc — is one of only [eight](#) Apple board members. He also chaired Apple's Audit & Finance committee, which I assume would oversee budgets for things like... Apple's facility and safety oversight.

If you're trusting they're all doing the right thing, maybe they are, but I'd hope you might poke around a bit and see what exactly this whole floor crack / floor sealing thing is about — in addition to the lack of air testing, and refusal to test the air before they seal the floor.

<https://www.apple.com/newsroom/2010/11/17Ronald-D-Sugar-Joins-Apples-Board-of-Directors/>

Dr. Sugar served as Chairman and Chief Executive Officer at Northrop Grumman Corporation from 2003 until his retirement in 2010. Previous to Northrop, he held executive positions at Litton Industries and TRW Inc., where he served as chief financial officer.

<https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0901181#bkground>

The TRW Site was occupied by Aertech Industries from 1968 until it was sold to TRW Inc (TRW) in 1974. In 1987, TRW sold the facility to FEI Microwave, Inc. In 1993, FEI Microwave stopped production and in 1995 the site was acquired by Stewart Associates and leased to research and development companies until 2001. The exterior of the building was remodeled between 2001 and 2003, including demolition of part of the existing structure and construction of a new two-story building. In December 2002, TRW merged with Northrop Grumman. In 2004, the property was purchased by Pacific Landmark, and then by Hines in 2014 and then GI Partners, the current owner, in 2016. During these changes in site ownership, TRW and then Northrop Grumman retained responsibility for site cleanup.

<https://www.microwaves101.com/encyclopedias/where-are-they-now#trw>

TRW Microwave is long gone, but not the superfund site they left behind in Sunnyvale California. The name TRW comes from the 1958 merger of Thompson Products and Ramo-Wooldridge. TRW followed the "ITT model" of rapid expansion, getting caught cheating on military contracts, polluting ground water and putting employees at danger, then finally retrenchment into obscurity. In addition to credit reporting, TRW produces automotive air bags, another dual opportunity for OSHA violations and site pollution due to highly toxic sodium azide that is used to inflate the bag.

https://en.wikipedia.org/wiki/Ronald_Sugar

Sugar served as the president and chief operating officer of TRW Aerospace and Information Systems. From 2000 to 2001, he served as the president and chief operating officer of Litton Industries. He then served as the president and chief operating officer of Northrop Grumman Corporation from 2001 to 2003, and as its chairman and CEO from 2003 to 2009.[3] He was succeeded by Wesley G. Bush.[4] Sugar has also been a director of Chevron Corporation since 2005 and Apple Inc. since 2010.[5]

Ashley M. Gjovik

Juris Doctor Candidate & Public International Law Certificate Candidate, Santa Clara University, Class of 2022



On Jul 7, 2021, at 4:21 PM, Ashley Gjovik
<ashleygjovik@icloud.com> wrote:

Only updates are:

- They're refusing to test the indoor air *before* they seal the floor and won't give me any reasons why other than the 8hr limited testing from 2015
- They won't give me any details of what the "floor sealing process" entails
- They said they only did a "quick walk-through survey" for cracks and only saw what was readily available (I asked if they looked under the carpet by my desk, which is a hot spot in the building, and they said no) — they made sure to say it wasn't an "evaluation" for whatever reason. They admitted this is the first walk through they've done since 2015 in the building.
- When they do test the indoor air they plan to do a 1week passive sampler, with HVAC fully on, and with employees using the facilities as normal. I pointed out HVAC on would bring in outdoor air and dilute the indoor air if VI — and pointed out that if they results come back high, they won't know if its' VI or if it's employees that were cleaning/etc. They told me what they're doing is routine, best practice, and above and beyond what's required. I asked if they could at least do a 48hr summa with HVAC off & employees out in addition to the 1wk one and they said no, saying their way would give better results.
- They kept saying the whole process was routine but eventually admitted they've never done it before for any of their Apple buildings with employees actively working inside.
- They also told me again that now they won't answer any more of my questions about the safety of the building.
- I told them I remain very concerned the building is not safe.

P.S. not sure if you're aware, but apparently TRW Microwave building has NEVER had an EIR. It was made a Superfund after it was already constructed (that's where the leaking/dumping happened). Then they did a negative declaration for the expansion and that was it. I didn't see anything for Apple's remodel either. I PR'd Sunnyvale city records and they sent me

what they had. Quite limited.

-Ashley

Ashley M. Gjovik

Juris Doctor Candidate & Public International Law Certificate Candidate, Santa



On Jul 7, 2021, at 1:08 PM, Ashley Gjovik
<ashleygjovik@icloud.com> wrote:

Hi Margot,

Thank you for your responses! I have a few follow up questions below.

Also, as you mentioned *"it is important for EPA to be aware if there's a significant change to site conditions,"* I would hope you've already been informed that there are apparently cracks in the floor of Stewart 1 and Apple is pursuing a "floor sealing plan." See quote below from Apple EH&S. They apparently did their first formal "vapor intrusion evaluation" walkthrough ever this May and noticed the cracks. I'd ask again, considering this and considering my fainting spell in 2019, if the EPA is still confident that the the vapor intrusion is under control.

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In addition, I'm not sure if you're aware but after I started asking a lot of questions to Apple EH&S about their oversight of TRW Microwave, they went from planning to test the indoor air this year to then saying they may no longer test the air and if they do it's at

a TBD time. They offered no explanation for why they decided not to test and also told me they wouldn't answer any more of my questions. Further, the environmental engineer who has overseen Apple's environmental engineering & due diligence program for over seven years is now leaving Apple. He went on medical leave within an hour of my last conversation with them when they said they wouldn't answer my questions and they might not test the air now — and upon coming back from leave he's now leaving Apple imminently. This all seems quite peculiar to me.

Finally, my follow-up questions for the EPA are inline below and also summarized here:

- A) Can you please share a link to the May 2015 indoor air testing report? Apple told me the Dec 2015 report included the May 2015 data and there was no separate May 2015 report. That didn't sound right and I've been trying to track down the detailed May report.
- B) Can you confirm if the May 2015 testing was only 8hrs in duration like the Dec 2015 testing was? Was there any 24hr+ Summa testing ever performed in the TRW building that passed the EPA indoor air thresholds?
- C) I see ethylbenzene and toluene noted as related chemicals for TRW in earlier EPA reports (copy inline). Did you mean to say they're not "contaminants of concern?" Does it change your analysis knowing they have been known to be part of the historical contamination?

I would appreciate a quicker response this time if possible. After I reminded Apple of labor laws & stuff, they clarified they'd "never prohibit me from speaking out about workplace safety concerns," and as such I am now actively looking into publishing something about this.

Apple EH&S reached out with the environmental engineer leaving and are "providing me an update" later this afternoon. I'll let you know if there's anything else they say I think you'll care about — or which raise questions for the EPA.

Thanks!

Ashley M. Gjovik
Juris Doctor Candidate & Public International



Jun 7, 2021, at 8:29 AM, PerezSullivan, Margot
<PerezSullivan.Margot@epa.gov> wrote:

Hi Ashley, I'm out this week, but wanted to send this on. Thanks!

Question: I am curious what the EPA's expectations are for the

frequency (how often) & duration (how long/intensive) of indoor air testing in a building like TRW Microwave. Did you approve that they could stop doing indoor air testing after 2015 — or is it up to the responsible party to decide? Are Ethylbenzene and Toluene COCS for the great Triple Site plume — could they be migrating?

Response: Superfund cleanups are governed by a complex network of laws, regulations, and guidance. Where there are vapor intrusion concerns, assessments and monitoring are conducted based on site-specific information, such as contaminant concentrations, site uses, history, available data, and mitigation measures.

At the TRW Microwave Superfund Site, groundwater monitoring has been ongoing. Since 2016, groundwater concentrations for the TRW Microwave site-specific constituents of concern (primarily TCE and breakdown daughter products) have been stable. Because TRW Microwave Site conditions have not changed, EPA believes the remedy in place at the site remains protective and has not required additional ongoing indoor air sampling.

The Regional Water Quality Control Board (RWQCB) and EPA have overseen the cleanup actions at the TRW Microwave Site. Over the decades, site remedies have greatly reduced contaminant concentrations, including the primary constituent of concern, TCE in groundwater. TCE concentrations at the TRW Microwave Site have declined from upwards of 10,000 parts per billion (ug/L) in the 1980s to generally less than 100 µg/L today (for context, 1 part per billion would be equal to 1 drop of ink in 1 billion drops of water).

The vapor intrusion risk at the site has been addressed under RWQCB and EPA oversight multiple times by the Northrup Grumman Corporation (the responsible party), and the current owner of the property. In 2013 indoor air sampling was conducted in the then unoccupied 825 Stewart Avenue building, which was unfinished and had open conduits in the sub-slab. The results indicated that a few volatile organic compounds were present at concentrations greater than the generic health risk screening values at the time for workers. The 2013 results are available on the EPA TRW Microwave

liable on the EPA TRW Microwave website: <https://cumulis.epa.gov/superpad/SiteProfiles/index.cfm?fuseaction=second.docdata&id=0901181>

Since 2013, the 825 Stewart Avenue building was renovated and Northrup Grumman and the now current property owner proactively implemented a number of protective measures to prevent vapor intrusion into the building:

- August/September 2014:

A sub-slab vapor collection system was installed underneath the site building to vent vapors to the atmosphere.

- October/November 2014:

Contaminated soil from underneath the building in the former TRW Microwave source area was excavated and removed to prevent contaminants in the soil from volatilizing into the building. Additionally, small diameter groundwater wells inside the building were decommissioned and sealed to eliminate a potential vapor intrusion pathway into the building. These mitigation

measures are documented in a 2015 Source Area Soil Removal Report, which can be found on the EPA TRW Microwave website.

- *December 2014:*

To reduce contamination in groundwater and the potential for vapor intrusion, when the building was unoccupied emulsified vegetable oil was injected underneath the building to accelerate the biological degradation of PCE, TCE, and associated by-products. The results are in the annual groundwater monitoring reports, which are available on the EPA TRW Microwave website.

- *April 2015:*

Openings through pipes, seams, or cracks in the building's concrete sub-slab were sealed to prevent vapor intrusion. Additionally, the spaces between the walls of the three sections of the buildings were also sealed.

After the protective measures above were implemented, indoor air sampling was conducted in May 2015. The May sampling event was conducted with the HVAC system turned off as a worst-case scenario. The indoor

worst case scenario. The indoor air results were less than EPA's generic health risk screening values based on a workplace exposure of 250 days per year for 25 years and demonstrated the effectiveness of the post-2013 measures to mitigate vapor intrusion. The results are available in a June 2015 report available on the EPA TRW Microwave website.

A) Can you please share a link to the May 2015 indoor air testing report? Apple told me the Dec 2015 report included the May 2015 data and there was no separate May 2015 report. That didn't sound right and I've been trying to track down the detailed May report.

B) Can you confirm if the May 2015 testing was only 8hrs in duration like the Dec 2015 testing was? Was there any 24hr+ Summa testing ever performed in the TRW building that passed the EPA indoor air thresholds?

Due to building renovations subsequent to the May 2015 indoor air sampling event, another indoor air sampling event was conducted in December 2015, which EPA agree with. The indoor air sampling event was conducted with the HVAC system off, except for one zone where it was reported that the HVAC system could not be turned off. The December 2015 results again demonstrated that the chemicals related to the TRW Microwave Superfund Site were less than EPA's indoor air human health risk screening values for workers (note, ethylbenzene and toluene

*are not associated with the I RW
Microwave Superfund Site).*

C) I see ethylbenzene and toluene noted as related chemicals for TRW in earlier EPA reports. Did you mean to say they're not "contaminants of concern?" Does it change your analysis knowing they have been known to be part of the historical contamination?

i.e.

<1991 Triple Site Toxins.png>

2) Communication:

Background: Next, from what Apple has told me, they said they decided internally that they have no legal obligation to have to inform employees about the status of these buildings related to chemicals in the soil or groundwater, or Superfund status, etc. I pressed further if there's an ethical obligation and they said that would be a "bigger conversation." It sounds like they think they only have to inform employees if there's a concrete and immediate risk to employee health (which I argued... how would they know that if they're not testing?... no answer). I'm also feeling pressure to not talk to co-workers about any of this either (from my direct manager and our employee relations teams).

Question: I am curious what the EPA's expectations are for responsible parties related to

informing workers in these buildings about the chemicals, the gov status, etc. Maybe this is more OSHA & "Right to Know" — but any guidance you can provide here would be helpful. Also, anything about workers' rights to be able to talk about these sites. I would also appreciate any guidance you have about learning more about possible chemical exposure from this site from an unbiased party. I talked to Dr. Robert Harrison about it yesterday for a bit, but he says we don't have enough data because no one was testing while I was there. I was also going to see if Tracy Barreau and Dr. Prudhomme would take a look informally. Let me know if you know of anyone else who might have thoughts.

Response: EPA is not aware of any regulation or limitation to workers or the public to talk about a Superfund site. EPA supports transparency and providing information to the public, other than where prevented by regulation, guidance, or to protect personally identifiable or confidential business information.

There is no specific right-to-know requirement in the TRW Microwave Record of Decision, which documents the remedy selected for the Site. For a site where conditions

*are protective of human health
there is no
specific EPA requirement to
notify each site
visitor or construction or
office worker of
a mitigated potential
risk. However, EPA does conduct
regular community outreach and
provides further transparency to
the public through websites, fact
sheets, and responses
to public inquiries. Note that
different sites may have different
public notification
needs or requirements.*

3) Monitoring:

Background: Further, because none of us know this is a Superfund site — we don't know not to mess with sub slab vent covers, or to not mess with the HVAC, or to report if there's any unusual smells etc. I brought this up with him and he'd said he'd back to me a couple weeks ago — but said that the Env Health Safety team does know and does visit the site. I communicated that does not seem sufficient. In fact, with the wild fire smoke last year, we had EHS turn off the HVAC so outdoor air wasn't being brought in — from what I've seen, it doesn't seem like the vapor intrusion mitigation system was ever considered when they did turn it off. I believe it was off for a week or two. I brought this up too - and

or when I brought him up too and he hasn't gotten back to me either. I know I've seen people kicking at those SS-V plugs not knowing what they are too.

Response: *Thank you for conveying that during the wildfires last year the HVAC system was turned off, as it is important for EPA to be aware if there's a significant change to site conditions. Even with the HVAC system off, the sub-slab vapor collection system will continue to vent vapors that collect under the building to the atmosphere.*

Question: Similar question as #2, but I'm curious what the EPA's expectations are for responsible parties (and companies they may lease to) to communicate to workers in these buildings about how to monitor for their issues (weird smells, weird health issues, etc) or how to report trouble or what not to mess with (plugs, HVAC, etc). Etc.

These are my best attempt at mapping results.... But take with a grain of salt... I only play an industrial hygienist on TV. J/k. But seriously, also mapped where I fainted in 2019. Our HR team pushed me to file a workers comp claim about it and the workers comp administrator wanted to call it "continuous trauma" for my time working in at least that building.

7/1/2024 10:00 AM

(Apple had plenty other Superfunds and chemical release sites I visited too). I'm not sure where this will go though... if Apple wasn't testing the indoor air, it seems impossible to know if there were problematic chemicals in the air or not when it happened.

I did have more fainting in the office in 2020, but it was while this was going on too: <https://sfbayview.com/2021/03/i-thought-i-was-dying-my-apartment-was-built-on-toxic-waste/>

So I just assumed the fainting in 2020 was carry over from the apartment I moved into Feb 2020. I haven't been back to the office since last year. I've been fine since I moved out of that apartment in Sept 2020 (and haven't been back to the office either).

Response: EPA believes the remedy in place at the TRW Microwave Site remains protective. EPA will continue to evaluate the protectiveness of the remedy if conditions at the Site change. EPA will also continue to evaluate the protectiveness at the Site during the mandatory Five-Year Review, which was last completed for the TRW Microwave and the Triple Site in late 2019.

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On May 27, 2021, at 12:10 PM,
Ashley Gjovik
<ashleygjovik@icloud.com> wrote:

Hi Margot,

Checking in. 😊

Sent from my iPhone

On May 4, 2021, at
10:58 AM, Ashley
Gjovik
<ashleygjovik@icloud.com> wrote:

Hi Margot!

Thank you very
much. No deadline; I
understand you're
busy. Just generally
sooner than later
would be great.

P.S. I don't have
anything in the
pipeline publishing
wise about the TRW
Microwave site —
though I am
speaking with
several other
agencies about it —
in addition to talking
with Apple directly.
As mentioned, as of
my last conversation
with Apple Employee
Relations, I'm unsure
if I can actually talk
about the site at
work without getting
in trouble for doing
so — let alone
publishing anything