

**From:** [Snow, Mary@Waterboards](mailto:Snow.Mary@Waterboards)  
**To:** [Turner, Garrett Michael \(ARC-JQ\)](#); [Jones, Lucrina](#)  
**Cc:** [Hannah Rollins](#); [PAandes@allenmatkins.com](mailto:PAandes@allenmatkins.com); [noztek@google.com](mailto:noztek@google.com); [Alex Saleh](#); [Puneet Singh Moonach \(xWF\)](#); [Frank Raya](#); [John Montgomery-Brown](#); [Michelle King](#); [Karen Gruebel](#); [Nicki Franks](#); [Serna, Elena \(ARC-DT\)](#); [Chesnutt, John](#); [Lee, Alana](#); [Dreyfus, Bethany \(she/her/hers\)](#); [Prend, Diane \(she/her/hers\)](#)  
**Subject:** RE: [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment  
**Date:** Monday, November 4, 2024 4:10:02 PM

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Good afternoon, Garrett,

Yes, the Regional Water Board also concurs with the Revised Hangar 1 Action Memorandum Amendment. Please reach out if you have questions.

Regards,  
Mary

Mary K. Snow, PG  
Engineering Geologist

SF Bay Regional Water Quality Control Board  
1515 Clay St, Suite 1400  
Oakland, CA 94612  
Phone: 510-622-2338  
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**From:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>  
**Sent:** Monday, November 4, 2024 3:21 PM  
**To:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAandes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>; Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>; Chesnutt, John <[Chesnutt.John@epa.gov](mailto:Chesnutt.John@epa.gov)>; Lee, Alana <[lee.alana@epa.gov](mailto:lee.alana@epa.gov)>; Dreyfus, Bethany (she/her/hers) <[Dreyfus.Bethany@epa.gov](mailto:Dreyfus.Bethany@epa.gov)>; Prend, Diane (she/her/hers) <[prend.diane@epa.gov](mailto:prend.diane@epa.gov)>  
**Subject:** RE: [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

**Caution:** External Email. Use caution when clicking links or opening attachments. When in doubt, contact DIT or use the Phish Alert Button.

Lucrina,

Thank you for letting me know that the EPA has approved the Revised Hangar 1 Action Memorandum Amendment. Hopefully Mary will be able to give us the Regional Water Board approval soon as well.

**Garrett Michael Turner, P.E.**  
Restoration Program Manager  
Environmental Management Division  
NASA Ames Research Center  
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**From:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>  
**Sent:** Friday, November 1, 2024 2:40 PM  
**To:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAndes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>; Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>; Chesnutt, John <[Chesnutt.John@epa.gov](mailto:Chesnutt.John@epa.gov)>; Lee, Alana <[lee.alana@epa.gov](mailto:lee.alana@epa.gov)>; Dreyfus, Bethany (she/her/hers) <[Dreyfus.Bethany@epa.gov](mailto:Dreyfus.Bethany@epa.gov)>; Prend, Diane (she/her/hers) <[prend.diane@epa.gov](mailto:prend.diane@epa.gov)>  
**Subject:** RE: [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

Hello Garrett,

EPA accepts the Revised Hangar 1 Action Memorandum Amendment. Thank you.

r/ Lucrina Jones

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**From:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>  
**Sent:** Tuesday, October 1, 2024 11:27 AM  
**To:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAndes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>; Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>; Chesnutt, John <[Chesnutt.John@epa.gov](mailto:Chesnutt.John@epa.gov)>; Lee, Alana <[lee.alana@epa.gov](mailto:lee.alana@epa.gov)>; Dreyfus, Bethany (she/her/hers) <[Dreyfus.Bethany@epa.gov](mailto:Dreyfus.Bethany@epa.gov)>; Prend, Diane (she/her/hers) <[prend.diane@epa.gov](mailto:prend.diane@epa.gov)>  
**Subject:** RE: [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

Lucrina and Mary,

The Revised Hangar 1 Action Memorandum Amendment is attached. Please let me know if you have any further questions.

**Garrett Michael Turner, P.E.**  
Restoration Program Manager  
Environmental Management Division  
NASA Ames Research Center  
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[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)

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**From:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>  
**Sent:** Tuesday, October 1, 2024 9:23 AM  
**To:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAndes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>); Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>; Chesnutt, John <[Chesnutt.John@epa.gov](mailto:Chesnutt.John@epa.gov)>; Lee, Alana <[lee.alana@epa.gov](mailto:lee.alana@epa.gov)>; Dreyfus, Bethany (she/her/hers) <[Dreyfus.Bethany@epa.gov](mailto:Dreyfus.Bethany@epa.gov)>; Prend, Diane (she/her/hers) <[prend.diane@epa.gov](mailto:prend.diane@epa.gov)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Subject:** [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

Good morning, Garrett,

EPA and the Regional Water Board reviewed the RTCs to the Hangar 1 Action Memorandum (AM) Amendment as well as the redline version of the document and have no further comments or questions. We look forward to the final document. Thank you.

r/ Lucrina Jones



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**From:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>  
**Sent:** Monday, September 23, 2024 3:49 PM  
**To:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAndes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>); Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks

<nfranks@ekiconsult.com>; Serna, Elena (ARC-DT) <elena.serna@nasa.gov>

**Subject:** RE: [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

**Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Lucrina and Mary,

NASA's responses to your comments are below and a redlined version of the document is attached. Please let me know if we can finalize the document.

**Garrett Michael Turner, P.E.**  
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Environmental Management Division  
NASA Ames Research Center  
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**From:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>

**Sent:** Thursday, August 29, 2024 11:31 AM

**To:** Turner, Garrett Michael (ARC-JQ) <[garrett.michael.turner@nasa.gov](mailto:garrett.michael.turner@nasa.gov)>

**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; PAndes@allenmatkins.com; noztek@google.com; Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>); Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; Snow, Mary@Waterboards <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>; John Montgomery-Brown <[jmontgomery-brown@ekiconsult.com](mailto:jmontgomery-brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>

**Subject:** [EXTERNAL] RE: Hangar 1 Action Memorandum Amendment

Hello Garrett,

EPA and the Regional Water Board have reviewed the Hangar 1 Action Memorandum (AM) Amendment, MFA Leasehold Mountain View, California and have the following comments:

- The AM Amendment (page 3 of 6) states that “the use of such techniques would damage the historic fabric of Hangar 1”. Please clarify if this statement is PV’s or NASA’s determination or a SHPO determination. If it is a SHPO determination, please include reference to this determination.

The SHPO concurred

([https://historicproperties.arc.nasa.gov/downloads/s106\\_hangar1\\_20200622\\_shpo.pdf](https://historicproperties.arc.nasa.gov/downloads/s106_hangar1_20200622_shpo.pdf))

with the Section 106 Technical Report

([https://historicproperties.arc.nasa.gov/downloads/s106\\_hangar01\\_20200413\\_nasa\\_att1\\_redacted.pdf](https://historicproperties.arc.nasa.gov/downloads/s106_hangar01_20200413_nasa_att1_redacted.pdf)) which concluded that the Hangar’s concrete floor slab is a ‘character-

defining feature' (see the final Interior feature bullet on page 21 of the report) and, "chemical paint stripper and manual scraping will be used to remove impacted paints *[from the CMU walls and other concrete surfaces]* instead of media blasting to avoid abrasion or damage to the historic surface texture" (see the paragraph below the photos on page 25 of the report). The conclusion and recommendation presented in the Section 106 Technical Report were developed jointly by NASA's and PV's qualified architectural historians and were based on the results of the 2017 Pilot Study ([https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/3340994477/T10000006420.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/3340994477/T10000006420.PDF)).

Please note that in its concurrence letter, the SHPO indicated that "based on the information submitted, the SHPO has no objection to the proposed Finding of No Adverse Effect for this undertaking as described" (the second last bullet on page 2 of the letter). This implies that the SHPO's concurrence was based on the use of chemical stripping and manual scraping to avoid abrasion or damage to the historic surface texture of the concrete surfaces and that SHPO review and approval would be required if the abatement procedure for concrete surfaces were changed.

The following footnote has been added to the end of the second last sentence in the Porous Surface Abatement Activities in the AM Amendment (and the appropriate references have been added to the references section of the AM Amendment).

**Footnote 3: "The Hangar 1: Phase I Rehabilitation (Abatement) Section 106 Technical Report [HRG, 2020] concluded that the Hangar's concrete floor slab is a "character-defining feature" and recommends that "chemical paint stripper and manual scraping will be used to remove impacted paints *[from the CMU walls and other concrete surfaces]* instead of media blasting to avoid abrasion or damage to the historic surface texture." In its concurrence letter [SHPO, 2020], the State Historic Preservation Office indicated that "based on the information submitted, the SHPO has no objection to the proposed Finding of No Adverse Effect for this undertaking as described," which implies that the SHPO's concurrence was based on the use of chemical stripping and manual scraping to avoid abrasion or damage to the historic surface texture of the concrete surfaces and that SHPO review and approval would be required if the abatement procedure for concrete surfaces were changed.**

- Please revise to clearly state that the AM Amendment does not/will not change the analytical sampling procedures and methodologies to demonstrate that the numerical Remedial Action Objectives (RAOs) have been met.

The second paragraph of the Revised Cleanup Goals for Porous Surfaces in the AM Amendment has been revised as indicated below to clearly indicate that there is no change in the analytical sampling procedures and methodologies.

***The proposed change does not change the analytical sampling procedures or methodologies that will be used to demonstrate that the numerical Cleanup Goals have***

*been met (i.e., ~~consistent~~ ~~Consistent~~ with the approach described in the Action Memorandum ~~numeric Cleanup Goals for non-porous surfaces~~, the 95% Upper Confidence Limit (UCL) of the mean concentrations of PCBs and lead in the porous surface confirmation samples will be compared to the numeric Cleanup Goals ~~listed below~~.) and, provided that the 95% UCLs are below the numeric Cleanup Goals, the abated concrete will not present a significant risk to human health or the environment even though residual paint may remain in the valleys and/or pore spaces of the abated concrete.*

Please contact me and Mary Snow if you have questions. Thank you.

r/ Lucrina Jones

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**LUCRINA C. JONES**, Remedial Project Manager  
Superfund & Emergency Management Division (SFD-8-2)  
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**From:** Turner, Garrett Michael (ARC-JQ)  
**Sent:** Monday, August 12, 2024 1:09 PM  
**To:** Jones, Lucrina <[Jones.Lucrina@epa.gov](mailto:Jones.Lucrina@epa.gov)>; Mary Snow <[Mary.Snow@Waterboards.ca.gov](mailto:Mary.Snow@Waterboards.ca.gov)>  
**Cc:** Hannah Rollins <[hrollins@google.com](mailto:hrollins@google.com)>; [PAndes@allenmatkins.com](mailto:PAndes@allenmatkins.com); [noztek@google.com](mailto:noztek@google.com); Alex Saleh <[alexsaleh@google.com](mailto:alexsaleh@google.com)>; Puneet Singh Moonach (xWF) <[pmoonach@xwf.google.com](mailto:pmoonach@xwf.google.com)>; Frank Raya <[rayaf@google.com](mailto:rayaf@google.com)>; John Montgomery-Brown <[jmontgomery-Brown@ekiconsult.com](mailto:jmontgomery-Brown@ekiconsult.com)>; Michelle King <[mkking@ekiconsult.com](mailto:mkking@ekiconsult.com)>; Karen Gruebel <[kgruebel@ekiconsult.com](mailto:kgruebel@ekiconsult.com)>; Nicki Franks <[nfranks@ekiconsult.com](mailto:nfranks@ekiconsult.com)>; Serna, Elena (ARC-DT) <[elena.serna@nasa.gov](mailto:elena.serna@nasa.gov)>  
**Subject:** Hangar 1 Action Memorandum Amendment

Lucrina and Mary,

The Hangar 1 Action Memorandum Amendment is attached. Your expedited approval of this amendment would be greatly appreciated.

Please let me know if you have any questions.

**Garrett Michael Turner, P.E.**  
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Environmental Management Division  
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<< File: 20240812 Hangar 1 Action Memo Amendment Signed.pdf >>