

National Aeronautics and
Space Administration
Ames Research Center
Moffett Field, CA 94035-1000



Reply to Attn of:

JQ: 204-15

AUG 21 2013

Mr. Scott Anderson
Base Realignment and Closure
(BRAC) Environmental Coordinator
BRAC PMO West
1455 Frazee Road
San Diego, CA 92108

Dear Mr. Anderson:

National Aeronautics and Space Administration (NASA) Ames Research Center (Ames) has reviewed the *Proposed Plan for Hangar 1, Site 29*. NASA Ames' comments are provided in the following paragraphs.

General Comments:

The Navy recently completed the field work for their Non-Time-Critical Removal Action (NCTRA) for Hangar 1. The NCTRA approach unilaterally selected by the Navy provided for the removal of the contaminated siding and coating of the frame with an epoxy coating. The coating is intended to encapsulate the contamination remaining in the paint on the frame. The Navy's Proposed Plan (PP) for the long-term maintenance NCTRA for Hangar 1 relies on the establishment of institutional controls (ICs). The purpose of the ICs is to set up measures to protect and monitor the effectiveness of the removal action. The Navy's proposed alternative (Alternative 2) would require the Property Owner and/or tenant to assume responsibility for the inspection, maintenance, and reporting on the effectiveness of the NCTRA. In previous discussions with the Navy, orally and in writing, NASA made its position very clear that the Navy retains the liability and responsibility associated with all other aspects of the Hangar 1 not listed below including the protection of the coating and preservation of the containment at their expense, pre- and post- residing.

NASA had agreed to take over the maintenance of certain aspects of the hangar. These specific items include the:

- new galvanized walkway to the beacon and the star,
- hinge pins on the two clamshell doors,
- thirty-six trucks supporting the doors,
- four door gear drive motors,

- resumption of the Bird Airstrike Hazard (BASH) management in the vicinity of the hangar, and
- maintenance of the hangar's electrical vaults with the exception of electrical vault five.

NASA is prepared to establish and assume responsibility for the following ICs presented in the PP to support the Navy's removal action long-term management:

- Installation and maintenance of signs notifying of the potential exposure hazard,
- Administrative arrangements for access,
- Administrative commitment to incorporate appropriate notices and restrictions in any property transfer agreements.

NASA maintains its previously stated position that the Navy is responsible for all ICs not listed immediately above. In response to NASA's comments on the Draft PP, the Navy cites a letter dated May 26, 2009, inferring that NASA agreed to implement operation and maintenance for Hangar 1. To the contrary, the full text of the cited letter (and its referenced MOU) clearly separates Hangar 1 response activities in paragraphs 3 and 4 from the other Moffett Field remediation sites. Paragraphs 3 and 4 explain that the Navy is responsible for the integrity of the structural framework until there is a plan for residing necessary for subsequent adaptive re-use; to do otherwise would be "untenable". The specific sentence referenced by the Navy is in paragraph 5 of the May 26, 2009 letter, addressing the other sites at Moffett Field "consistent with the December 12, 2008, MOU". The December 12, 2008, MOU, in paragraph 3 addresses "ongoing and future remedial actions for all property transferred under the 1992 MOU, with the exception of Hangar 1..." Furthermore, the December 12, 2008, MOU ultimately was not executed, because NASA and the Navy were unable to reach agreement on time and level of effort to complete the remediation. NASA and the Navy were also unable to find agreement on the cost to complete and sufficient funding provided by the Navy for the remaining work to be done for restoration of the former NAS Moffett Field. Therefore, NASA reiterates its position that the Navy remains responsible for Institutional Controls related to continued inspection and maintenance of the epoxy coating and sediment sampling to ensure the integrity of the structural framework.

The Navy is aware that NASA is currently engaged with the General Services Administration (GSA) to establish an out-lease arrangement of the East Side of Moffett Field, including Hangar 1. Regardless of the outcome of this activity, Hangar 1 will be re-used by some entity, an out-lessee or NASA. A pre-requisite to re-use, however, is the residing of the Hangar. The Navy was aware that residing will be necessary for reuse of Hangar 1 during the evaluation of alternatives as part of the Engineering Evaluation and Cost Analysis (EE/CA). The Navy elected to implement the CM-15 epoxy coating approach to mitigate the hangar's environmental and health/safety issues. This also meant that the Navy was aware that when any residing occurs the coating would be disturbed and they would have to ensure, at their expense, that the coating remained a fully effective mitigation, before, during and after the completion of any re-siding effort. In sum, the Navy is responsible for demonstrating the NCTRA is effective at preventing

exposure of the contamination to the environment and human health before and after residing.

Specific Comments

COMMENT 1

Site Description, Previous Investigations and Decisions, 3rd Par., 2nd Sent., pg. 4

The NASA NCTRA not only included removal of the contaminated sediment from the storm water collection trench surrounding the hangar but also included restricted access to the hangar.

COMMENT 2

Risk Summary, 7th bullet, pg. 4

The bullet notes that the risk summary should include the evaluation of "other situations or factors that may pose threats to public health, welfare or the environment." In order for any future use of the hangar, the siding will have to be restored. During the residing process, workers, the public, and the environment will be exposed to the PCBs and lead in the paint. The coating will no longer be effective at addressing the risks left by the NCTRA.

COMMENT 3

Risk Summary, Last Paragraph, Last two Sentences, pg. 5

The sentence concludes that the CM15 epoxy coating has mitigated the immediate threat. The epoxy coating does not mitigate the long-term threat. For the coating to be effective in the long-term, the coating will require routine maintenance and monitoring. The Navy does not state how long this routine maintenance and monitoring will be required. How effective will the CM15 be after the twelve-year warranty? Will the entire frame require recoating in the future to keep the contamination encapsulated?

COMMENT 4

Remedial Action Objectives, pp. 5 – 6

The section starts with the statement, "Remedial Action Objectives (RAOs) are site-specific goals for protecting human health and the environment, and typically address either an exposure pathway and/or a contaminant." The current NCTRA does not adequately meet the full intent of an RAO. Specifically, if the epoxy were to break down, exposure could occur. For reuse of the hangar, the epoxy coating will need to be disturbed to allow for residing of the hangar. In any event, the RAO would no longer be effective at protecting human health or the environment.

The Navy itself admits that "if the CM15 epoxy coating breaks down in the future, additional action may be needed to prevent the release of COCs [chemicals of concern]." The Navy chose an action that likely will not meet the RAO in the long-term. For the RAO to be met, routine maintenance and monitoring is required. As the agency

responsible for the contamination, the Navy is responsible for the required maintenance and monitoring.

Finally, the current NCTRA does not meet two of the three principles for “the identification and evaluation of appropriate remedial alternatives:

The remedy must maintain that protection over time. To maintain the protection over time requires maintenance and monitoring of the coating, and may in time, require recoating of the entire frame.

The remedy must minimize untreated waste. Residing of the hangar will require disturbance/removal of the coating. The restoration process will produce hazardous waste that will have to be treated or disposed of. The coating itself may require handling as hazardous waste.

COMMENT 5

Remedial Action Alternatives, pg.6

The Navy begins this section noting that remedial action alternatives were evaluated and developed in the Focused Feasibility Study (FFS). “Remedial action is necessary at the site to ensure the NCTRA remedy remains effective.” Institutional controls to maintain the effectiveness of a removal action does not equate to a remedial action. Removal actions are taken to prevent further exposure to human health and the environment while a permanent remedial action is developed that eliminates further exposure of the contamination. Encapsulation of the frame leaves PCBs above levels that prohibit unlimited use and unrestricted exposure.

The FFS was also limited in scope. Only two alternatives were screened and evaluated: no action and implementation of institutional controls. Institutional controls, while needed to maintain the integrity of the NCTRA, are not remedial actions that remove the hazardous substances permanently.

COMMENT 6

Remedial Action Alternatives, 5th Paragraph, 2nd Sentence, pg. 6

The sentence states that Alternative 2 is consistent with the planned future use of the property. Hangar 1 planned future which will require the hangar to be resided. In the process of residing the hangar, the CM15 epoxy coating will be disturbed exposing the contamination that remains on the frame.

COMMENT 7

Remedial Action Alternatives, List of potential institutional controls, pg. 8

The 3rd bullet states that one potential measure is property owner and tenant commitment to inspection and maintenance of the CM15 epoxy coating. This would involve “implementing, inspecting, maintaining, reporting and enforcing institutional controls under this remedial alternative.” It is NASA’s position that the Navy is solely responsible for the inspection and maintenance of the coating. If at any time in the future this alternative is no longer effective, it is the obligation of the Navy to “modify the preferred alternative or select another remedial action.”

COMMENT 8

Remedial Action Alternatives, last Par., last sent., pg. 8

The production of the five-year reviews is the sole responsibility of the Navy. The Navy is the agency required to show through inspections, maintenance, and reporting that the CM15 coating is effective at preventing exposure of the contamination to the public health and environment.

COMMENT 9

Implementability, 2nd Paragraph, pg. 10

Alternative 2 is neither easily implemented nor compatible with the anticipated site use. The inspection and maintenance of the coating will require access to the upper portions of the hangar which will require lifting machinery capable of reaching the top or the installation of scaffolding. There are at least two square million feet of frame surface that will need to be inspected. Implementing an inspection and maintenance program for an area of this size and dimension is not easily accomplished.

COMMENT 10

Cost, pg. 10

NASA believes that the cost estimate of \$5,935,000.00 for this alternative is low. The cost estimate in this version of the PP is already higher than the \$4,937,000.00 in the draft version of the PP. Costs are likely to be higher due to the complexity of the frame and dimensions of the hangar. Costs would also increase if the CM15 epoxy coating degrades faster than expected.

If you have any questions, please contact me at 650-604-0237 or by e-mail at donald.m.chuck@nasa.gov.

Cordially,



Donald M. Chuck
Chief
Environmental Management Division

cc: (electronically)

Ms. Yvonne Fong, US EPA	fong.yvonneW@epa.gov
Ms. Alana Lee, US EPA	lee.alana@epa.gov
Ms. Penny Reddy, US EPA	Reddy.Penny@epa.gov
Ms. Jennifer Ledesma, CH2M Hill	Jennifer.Ledesma@ch2m.com
Ms. Elizabeth Wells, RWQCB	ewells@waterboards.ca.gov
Mr. Xavier Bryant, DTSC	xbryant@dtsc.ca.gov
Mr. Jim Whitcomb US Navy	james.h.whitcomb@navy.mil
Mr. James Leatherwood, NASA HQ	james.leatherwood-1@nasa.gov
Mr. Michael Green, NASA HQ	michael.j.green-1@nasa.gov
Mr. Michael McNeil, NASA HQ	mike.a.mcneill@nasa.gov
Ms. Joyce Adams, Weiss & Assoc.	jea@weiss.com
Mr. John Gallinatti, Geosyntec	JGallinatti@Geosyntec.com
Ms. Maile Smith, Northgate	maile.smith@ngem.com
Mr. Elie Haddad, Haley & Aldrich	EHaddad@haleyaldrich.com
Mr. William Berry, Moffett RAB	wmeberry@comcast.net
Mr. Lenny Siegel, CPEO	lsiegel@cpeo.org
Mr. Peter Strauss, PM Strauss	petestrauss1@comcast.net
200-9\D. Feng	deb.feng@nasa.gov
200-9\C. Duff	charles.w.duff@nasa.gov
200-9\J. Alwyn	james.d.alwyn@nasa.gov
202A-4\G. Sloup	george.p.sloup@nasa.gov
200-14\L. Lockyer	lisa.l.lockyer@nasa.gov
213-8\G. Sutton	george.w.sutton@nasa.gov
213-8\R. Caringello	tony.r.caringello@nasa.gov
213-8\K. Venter	keith.venter@nasa.gov