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July 31, 2024

Tim Davis
Chief Environmental Officer
National Aeronautics and Space Administration
White Sands Test Facility
P.O. Box 20
Las Cruces, NM 88004-0020

Attention of: RE-23-173

RE: APPROVAL WITH MODIFICATIONS
700 AREA LANDFILL CLOSURE (SWMU 49) PHASE II
ABBREVIATED INVESTIGATION WORK PLAN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHNSON SPACE CENTER WHITE SANDS TEST FACILITY
DOÑA ANA COUNTY, NEW MEXICO
EPA ID #NM08800019434
HWB-NASA-23-022

Dear Mr. Davis:

The New Mexico Environment Department (NMED) has received the National Aeronautics and Space Administration Johnson Space Center White Sands Test Facility (Permittee) *700 Area Landfill Closure (SWMU [solid waste management unit] 49) Phase II Abbreviated Investigation Work Plan* (Work Plan), dated October 25, 2023. NMED has completed a review of the Work Plan and hereby issues this Approval with the following modifications.

MODIFICATIONS

1. **Phase IIb Soil Borings, Pages 9 and 10**

   NMED Comment: The SWMU 49 historical information summary indicated that drums, containers, and liquid containing trichlorofluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane, and trichloroethylene were likely disposed of at the landfill prior to the inception of the RCRA program. Detections of these primary White Sands Test Facility (WSTF) volatile organic compounds have been detected in groundwater samples collected

at SWMU 49 adjacent monitoring wells 700-A-253 (cross-gradient) and 700-D-186 (down-gradient) at low levels suggesting a release from the landfill has reached groundwater. Therefore, should the angle boring pilot test planned for investigation Phase IIa fail, and if contamination is present beyond the extent of the proposed boring termination depths, vertical borings must be advanced, and samples collected, at least five feet below the deepest detected contamination to meet the March 2023 *WSTF RCRA Hazardous Waste Permit* (Permit), Section 4.2.3.1, Drilling, minimum requirements for site characterization. Necessary sampling for vertical delineation of subsurface contamination encountered may be collected at locations that will maintain the existing integrity of the landfill at locations most likely to yield the most representative site characterization data. Revise the Work Plan to address this comment and provide any necessary revised replacement pages.

2. **Table 3, List of COPCs [Contaminants of Potential Concern] with Chemical Analytical Method for Soil Samples, Pages 32 through 34**

   NMED Comment: The following comments must be addressed:

   a. SWMU 49 Historical Information Summary Section 7.8.2, Spills Reports, includes information on multiple occurrences of the disposal of petroleum contaminated soil, spill absorbent, and other petroleum containing materials at the landfill. To address this the sample analysis schedule must be revised to include total petroleum hydrocarbons as COPCs and soil samples must be analyzed for gasoline range organics, diesel range organics, and oil range organics. The soil sample chemical analysis schedule must be revised accordingly, and a revised replacement table provided.

   b. SWMU 49 Historical Information Summary Section 7.9, Polychlorinated Biphenyls [PCB], discussion indicates that prior to 1980 PCB containing materials such as florescent light ballasts, electrical equipment, and other PCB laden materials may have been disposed at the 700 Area landfill. Based on this information, Table 3 must be revised to include PCBs as COPCs, and the sampling schedule revised to include soil sample chemical analysis for PCBs, and a replacement table provided.

   c. If per-and polyfluoroalkyl substances (PFAS) are detected in proposed soil samples, groundwater samples at 700 Area Landfill monitoring wells must be collected and analyzed for PFAS. Any necessary additional sampling must be addressed in the Phase II investigation report recommendations. No revisions to the Work Plan are required in response to this comment.

The Permittee must provide replacement pages that address NMED's required modifications. In addition, a response letter that cross-references where the modifications were addressed must

be provided. The response letter must also be provided as an electronic copy. Electronic copies of the revised Work Plan and a redline-strikeout version of the Work Plan showing where all changes were made must be submitted to NMED no later than **October 31, 2024.**

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information, or every statement presented in the document.

If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 690-5760.

Sincerely,

JohnDavid Nance Digitally signed by JohnDavid Nance
Date: 2024.07.31 11:54:01 -06'00'

JohnDavid Nance
Chief
Hazardous Waste Bureau

cc: N. Dhawan, NMED HWB
G. Acevedo, NMED HWB
L. King, EPA Region 6 (6LCRRC)
A. Sanchez, NASA WSTF

File: NASA 2024 and Reading

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