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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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February 28, 2011

Colonel Robert L. Maness
377 ABW/CC
2000 Wyoming Blvd. SE
Kirtland AFB, NM 87117-5606

Subject: Comments on Final First Five-Year Review Report, Kirtland Air Force Base

Dear Col. Maness:

I have completed my review of the Final First Five-Year Review Report dated September 2010 prepared by the U.S. Air Force. Please find attached a memorandum documenting the review.

If you have any questions, please contact me at 214-665-7246 or hubner.tara@epa.gov.

Sincerely,

Tara Hubner
Environmental Scientist

Multimedia Planning and Permitting Division
Federal Facilities Section

Cc:
John Kielling – NMED HWB
James Bearzi – NMED HWB
William Moats – NMED HWB

First Five-Year Review Memorandum

Kirtland Air Force Base EPA ID# NMD9570024423 Albuquerque, Bernalillo County, New Mexico

This U.S. Environmental Protection Agency (EPA) First Five-Year Review Memorandum documents the performance and review of the Kirtland Air Force Base (KAFB) Final First Five-Year Review Report (Review Report) dated September 2010 prepared by the U.S. Air Force (Air Force). Acronyms used in this memorandum that are not defined within this document are defined in the Review Report.

Background

Section 121 of CERCLA, as amended by SARA, requires that remedial actions which result in any hazardous substances, pollutants, or contaminants remaining at the site be subject to a five-year review. The National Contingency Plan further provides that remedial actions which result in any hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure be reviewed every five years to ensure protection of human health and the environment. The five-year review requirement applies to all remedial actions selected under CERCLA §121. Therefore, sites with CERCLA remedial actions may be subject to a five-year review. Consistent with Executive Order 12580, other Federal agencies are responsible for ensuring that five-year reviews are conducted at sites where five-year reviews are required or appropriate. The purpose of a five-year review is to evaluate the implementation and performance of a remedy in order to determine if the remedy is or will be protective of human health and the environment.

As stated in the Review Report, as a matter of policy, the Air Force includes in its CERCLA five-year review program sites where RCRA corrective action has occurred and hazardous substances remain on site above levels that allow for unrestricted use and unlimited exposure. As stated in the EPA Comprehensive Five-Year Review Guidance (EPA 540-R-01-007), EPA does not have a statutorily defined role in five-year reviews at non-NPL Federal facility sites. However, where EPA has had active and substantial involvement at a non-NPL Federal facility, or where agencies, States, Tribes, or citizens seek EPA comment on five-year reviews conducted at a non-NPL Federal facility, EPA may, to the extent practicable on a site-specific basis, comment on five-year reviews and protectiveness determinations made by other Federal agencies or departments at non-NPL Federal facilities.

The Air Force, as lead agency for KAFB, conducted a five-year review of KAFB which was initiated by the Air Force on a voluntary basis. In the cover letter dated October 25, 2010 attached to the Review Report submitted to EPA Region 6, the Air Force stated "in Order to follow CERCLA §121(c) statutory mandate or EPA policy, the Five Year Review Report is submitted to US EPA for concurrence and subsequent submittal to EPA Headquarters". Since EPA does not have a statutorily defined role in five-year reviews at non-NPL Federal facility sites, EPA will only provide comments, not

concurrence, on the five-year review and protectiveness determinations made by the Air Force for KAFB.

Summary of First Five-Year Review Findings

The First Five-Year Review (Review) at KAFB was conducted September 2009 through July 2010. The Review focused on eight (8) individual ERP and ECP sites for which remedial actions have been implemented at KAFB: LF-001 Landfill No.1, LF-002 Landfill No.2, LF-008 Landfills Nos. 4, 5, and 6, DP-067 Three Mine Shafts, RW-006 Radioactive Burial 11, ST-070-E Former Site 219, SS-111/ST-106 Bulk Fuels Facility, and UST-058. No CERCLA removal or non-removal actions have occurred at any of the eight sites that were the focus of the Review. A summary of remedial actions at each of the eight sites based on the information provided in the Review Report is provided below.

LF-001 Landfill No. 1 (SWMU 6-1)

The final remedy that has been implemented at LF-001 includes the installation of an evapotranspiration cover system equipped with vegetative cover and associated drainage/erosion control system. Perimeter fencing, gates, and signage have also been installed. Monthly inspections and maintenance are conducted of the cover system and surrounding areas. A voluntary Long-term Monitoring (LTM) and Maintenance Program is conducted using one upgradient and three downgradient monitor wells in conjunction with the groundwater monitoring program for Landfills 002, 004/005, and 008. Groundwater is sampled on an annual basis. Samples are analyzed for inorganics and VOCs.

LF-002 Landfill No. 2 (SWMU 6-2)

The final remedy that has been implemented at LF-002 includes the installation of an evapotranspiration cover system equipped with vegetative cover and associated drainage/erosion control system. Perimeter fencing, gates, and signage have also been installed. Monthly inspections and maintenance are conducted of the cover system and surrounding areas. The LTM Program for LF-002 consists of gauging six monitor wells and sampling four of them, two upgradient and two downgradient. The wells sampled at LF-002 are analyzed for VOCs, groundwater quality parameters, contaminant indicator parameters, and parameters listed in Appendix III of 40 CFR Part 265.

LF-008 Landfill Nos. 4, 5, and 6 (SWMU 6-4)

The final remedy that has been implemented at LF-008 includes the installation of an evapotranspiration cover system equipped with vegetative cover and associated drainage/erosion control system. Perimeter fencing, gates, and signage have also been installed. Monthly inspections and maintenance are conducted of the cover system and surrounding areas. The LTM initiated at LF-008 consists of gauging and sampling ten groundwater monitoring wells in the regional aquifers present beneath the site. The wells sampled include one upgradient well completed in each aquifer, one crossgradient well completed in the perched aquifer, and seven downgradient wells. The groundwater samples are analyzed for general water chemistry parameters, TAL metals, pesticides, PCBs, herbicides, PAH, VOCs, and radionuclides.

DP-067 Three Mine Shafts (SWMU DP-067)

In March 2009, KAFB submitted a Final Accelerated Corrective Measures (ACM) Work Plan for DP-067. The work plan proposed the following remedial actions: excavation of soil and munitions within the Primary Mine Shaft Location (PMSL), conduct a surface sweep to a distance of 200 feet from center, removal of munitions, soil sampling for explosives of concern within the PMSL where MPPEH is concentrated, and restoration of the site by replacing excavated soils with clean fill. On October 5, 2009, NMED approved of the work plan. ACM activities were conducted in January 2010. At the time that the Review Report was prepared, the Final Report summarizing the activities conducted during the ACM had not been submitted.

RW-006 Radioactive Burial 11 (SWMU 6-30)

A Remedial Action Construction Completion Work Plan for the remediation of RW-006 has been completed. The work plan includes excavation of contaminated soil and debris, offsite disposal of excavated debris, backfilling of excavated areas, grading, and reseeded. No additional information regarding NMED approval of the Remedial Action Construction Completion Work Plan was available at the time that the Review Report was prepared. An LTM Program has been implemented for RW-006 which consists of gauging and sampling one monitor well. The groundwater samples are analyzed for VOCs, groundwater quality parameters, contaminant indicator parameters, and parameters listed in Appendix III of 40 CFR Part 265.

ST-070-E Oil/Water Separator (Former ST-219) (SWMU ST-070)

In January 2008, Kirtland AFB submitted an Interim Corrective Measures (ICM) Work Plan for ST-070-E. NMED approved the work plan in October 2008. The ICM consisted of an SVE system designed and constructed to abate sorb-phase and vapor-phase VOCs present in the vadose zone. The system currently consists of three extraction wells, a regenerative blower, and two in-line 55-gallon drums containing activated carbon. Operation and monitoring of the SVE system is conducted in accordance with an O&M Plan.

SS-111/ST-106 Bulk Fuels Facility

The Stage 2 Abatement Plan Report for the Bulk Fuels Facility identified SVE as the preferred abatement option for the VOC contamination within the vadose zone at the former fuel offloading rack at the Bulk Fuels Facility (ST-106). The SVE system at the former fuel offloading rack began pilot test operation in April 2003 and full scale operation in July 2004.

The same SVE remedial technology is being applied to interim remediation of the PSH impacted groundwater at SS-111. All of the SVE systems are operating in interim configurations while ongoing investigation and delineation of the nature and extent of the PSH impacted groundwater progresses.

Groundwater sampling of the Bulk Fuels Facility groundwater monitoring wells is conducted on a quarterly basis.

UST-058

UST-058 is a non-RCRA unit. An SVE system connected to six recovery wells is operated at UST-058. Additionally, PSH skimmer pumps are installed within two recovery wells to actively remove free-phase PSH from the water table.

EPA Comments on First Five-Year Review Report

Page 1-2, Section 1.4

EPA suggests including an appendix with a table providing corrective action status information on all 287 ERP, ECP, and MMRP sites, not just the table provided of sites receiving NFA determination.

Pages 3-10 – 3-16, Section 3.3

This section includes “a summary of the history of contamination for each of the ERP/ECP sites for which remedial investigations are currently in progress or remedial actions have been taken”. Summaries are provided for the eight sites that were the focus of the Review, as well as the following sites: SWMU RW-068 Radium Dump/Slag Pile and Cratering Area, ST-073 CERF Drain, WP-016 Manzano Sewage Treatment Facility, and WP-026 Sewage Lagoons and Golf Course.

Pages 3-17 – 3-22, Section 3.4

This section includes “a summary of the initial response actions taken for each site”. Summaries are provided for the eight sites that were the focus of the Review, as well as the following sites: DP-088 Trestle Site Disposal Area, RW-068 Radium Dump/Slag Pile and Cratering Area, WP-16 Manzano Sewage Treatment Facility, and WP-026 Sewage Lagoons and Golf Course Pond.

According to Sections 3.3 and 3.4, corrective actions have been performed at these additionally described sites. Why were these sites not included in the focus of the Review?

SWMU RW-068 Radium Dump/Slag Pile and Cratering Area – Corrective Measures Study (CMS), Remedy Implemented (NFA)
ST-073 CERF Drain –ACM
WP-016 Manzano Sewage Treatment Facility – ICM
WP-026 Sewage Lagoons and Golf Course - ICM
DP-088 Trestle Site Disposal Area – ACM

Page 3-23, Section 3.5

The Review Report states “hazardous substances have been released to environmental media at each of the 7 sites”. The table in this section includes seven sites. The Review Report indicates that eight sites were the focus of the Review. *The table excludes DP-067 Three Mine Shafts.*

Page 4-1, Section 4.1 and Table 4-1

Section 4.1 is titled "Remedy Selections" and on page 4-1 the Review Report states that remedies have been proposed for the eight sites that are the focus of the Review. Table 4-1 is titled "Summary of Selected Remedy(ies) for Each Site". Under the column heading "Final Remedy Selected by NMED", this table indicates that the SVE system is the final remedy for SS-111/ST-106 Bulk Fuels Facility. The SVE systems are actually an interim action which is being undertaken during the investigation process. The table also indicates that an SVE system is the final remedy for ST-070-E Oil/Water Separator. The Review Report states in Section 3.4, page 3-20 that the SVE system at ST-070-E is an interim corrective measure. *The Review Report needs to distinguish between interim actions (measures) and selected remedies.*

Page 5-1, Section 5.2

The report states "the public was introduced to the five-year review process and invited to review the 2005 ERP MAP." Appendix H contains the public comments received during the public comment period. *Why was the public invited to review the 2005 ERP MAP? EPA suggests attaching a copy of the memorandum to the CAB and the public notice to the Review Report.*

Page 5-2, Section 5.4

This section does not document data review and evaluation for UST-058 or DP-067.

Page 5-3, Section 5.5

This section does not describe the site inspection results for the eight sites that were the focus of the Review.

Appendix A, Site Maps

The Appendix includes one large map of KAFB. EPA suggests including a detailed site map for each site included in the Review.

Appendix D

The photo log does not include photos of five of the eight sites that were the focus of the Review: DP-067, RW-006, ST-070-E, SS-111/ST-106, and UST-058.

EPA Comments on Protectiveness Determinations

LF-001, LF-002, and LF-008

The Review Report indicates that the remedies selected at LF-001, LF-002, and LF-008 are functioning as intended and the remedies implemented "are expected to be protective of human health and the environment once the remedies are completed".

Although the final remedy has been implemented at LF-002, on page 4-14 the Review Report states that the CMI work plan has not been approved by NMED for LF-002 because the City of Albuquerque will not allow KAFB to move the Tijeras Interceptor Sewer as required by NMED.

The Review Report does not indicate whether this issue will affect the protectiveness of the remedy.

On page 4-14, the Review Report indicates that some rainfall has been infiltrating the covers of the landfills.

The Review Report does not indicate whether these issues will affect the protectiveness of the remedies.

DP-067 Three Mine Shafts (SWMU DP-067)

ACM activities were conducted in January 2010. The Review Report indicates that at the time that the Review Report was prepared, the Final Report summarizing the activities conducted during the ACM had not been submitted to KAFB. Therefore, an evaluation of the effectiveness of the ACM was not conducted during the Review. The Review Report states that the protectiveness of the ACM will be evaluated during the next five-year review.

Why was the protectiveness of the ACM not evaluated? Although a final report had not been submitted for the ACM, the work plan would have summarized the activities to be conducted.

RW-006 Radioactive Burial 11 (SWMU 6-30)

A Remedial Action Construction Completion Work Plan was prepared in September 2009. No additional information regarding NMED approval of the Work Plan was available at the time that the Review Report was prepared. The Review Report states that the protectiveness of the remedial action will be evaluated during the next five-year review.

Why was the protectiveness of the proposed remedial action not evaluated?

ST-070-E Oil/Water Separator (Former ST-219) (SWMU ST-070)

An SVE system is operated as an ICM at ST-070-E. The Review Report indicates that the ICM is functioning as intended and that the ICM is "expected to be protective of human health and the environment" once the ICM is completed.

No comments

SS-111/ST-106 Bulk Fuels Facility

SVE systems are operated as an ICM at SS-111/ST-106. The effectiveness and protectiveness of the ICM was not evaluated in the Review.

Why was the effectiveness and protectiveness of the ICM not evaluated?

UST-058

UST-058 is a non-RCRA unit. SVE systems and PSH skimmer pumps are operated at UST-058. The Review Report indicates that the remedial action is functioning as intended and that the remedy is "expected to be protective of human health and the environment" once the remedy is completed.

No comments