
FACT SHEET / STATEMENT OF BASIS

**Request for Corrective Action Complete Status for
32 Areas of Concern and Solid Waste Management Units**

RCRA Permit Number NM7572124454

**CANNON AIR FORCE BASE
NEW MEXICO**

September 2014

FACT SHEET / STATEMENT OF BASIS

Proposals for Corrective Action Complete for 32 Sites at Cannon Air Force Base

RCRA Permit No. NM7572124454

Under authority of the New Mexico Hazardous Waste Act (Section 74-4-1 *et seq.*, New Mexico Statutes Annotated (NMSA) 1978, as amended, 1992) and the New Mexico Hazardous Waste Management Regulations (20.4.1 [New Mexico Administrative Code] NMAC), the New Mexico Environment Department (NMED) intends to approve, pending public input into this decision, Class 3 permit modification requests (PMRs) received from the United States Air Force/Cannon Air Force Base (Permittee) for the Hazardous Waste Corrective Action-only Permit (Permit) pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)).

If approved, the proposed modifications would grant Corrective Action Complete (CAC) status for 32 sites; two Areas of Concern (AOCs B and C) and 30 Solid Waste Management Units (SWMUs 2, 4, 6, 10, 31, 34, 50, 72, 75, 78, 79, 81, 82, 85, 86, 87, 88, 89, 90, 95, 96, 97, 98, 102, 104, 105, 106, 110, 124, and 125) at the Cannon Air Force Base (CAFB) facility. Currently, Table 1 in Permit Attachment 1 of CAFB's Resource Conservation and Recovery Act (RCRA) Permit lists SWMUs and AOCs at the CAFB facility where corrective action is necessary to characterize and remediate past releases of hazardous wastes or hazardous waste constituents. If this modification is approved by NMED, SWMUs 2, 4, 6, 34, 78, 82, 85, 95, 96, 97, 102, 104, and 105 (13 sites total) would be transferred from Table 1 in Permit Attachment 1 to Table 2 that lists SWMUs and AOCs with the status of Corrective Action Complete with Controls. AOCs B and C, SWMUs 10, 31, 50, 72, 75, 79, 81, 86, 87, 88, 89, 90, 98, 106, 110, 124, and 125 (19 sites total) would be transferred from Table 1 in Permit Attachment 1 to Table 3 of Attachment 1 that lists SWMUs and AOCs with the status of Corrective Action Complete without Controls. The 32 site locations are shown on attached Figures 1, 2, and 3.

The Permittee is located at the following address: Cannon Air Force Base, 110 East Alison Avenue, Suite 1098, Cannon Air Force Base, New Mexico 88103. The Permittee's primary contact for the action is: Colonel Heather L. Bueno, Commander, 27th Special Operations Mission Support Group at the address listed above.

A. Facility Description

CAFB is located in Curry County, New Mexico, approximately seven miles west of the City of Clovis and 15 miles north of the City of Portales. CAFB covers approximately 4,320 acres of land in the Southern High Plains Physiographic Province. No streams exist on or near CAFB. Running Water Draw and Frio Draw, located approximately 10 and 20 miles north of CAFB, respectively, are the nearest streams. The majority of land surrounding CAFB is irrigated farmland and grazing land for beef and dairy cattle. CAFB dates to 1929, when Portair Field, a civilian passenger terminal, was established. In 1942, the Army Air Corps took control of the airfield and it became known as Clovis Army Air Base. In 1957, the Base became a permanent installation and was renamed Cannon Air Force Base. In June 2006, it was announced that

CAFB would transfer from the Air Combat Command and become an Air Force Special Operations Command installation.

B. History of Investigation

NMED issued Attachment 1 as part of the CAFB Permit in November 2003. The CAFB Permit requires investigation of SWMUs and AOCs listed in Table 1 of Attachment 1 of the Permit. Sections H and I below briefly describe the locations, histories, evaluations of relevant information, and the basis for determination for the AOCs and SWMUs proposed for corrective action complete with and without controls. More detailed descriptions of the AOCs and SWMUs can be found in the permit modification requests submitted by the Permittee and the references listed at the end of this fact sheet which constitute the administrative record for this action.

C. Administrative Record

The Administrative Record for this proposed action consists of the CAFB Fact Sheet/Statement of Basis, this Public Notice, the November 2003 Permit that contains Tables 1 and 2, the Class 3 Permit Modification Requests dated July 2008, October 2010 and April 2013 with Permit Tables 1 through 3, and the referenced supporting documentation. The Administrative Record may be reviewed at the following location during the public comment period:

NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
(505) 476-6000
Monday - Friday from 8:00 a.m. to 5:00 p.m.

A copy of the Fact Sheet/Statement of Basis, the Public Notice, and the November 2003 Permit that contains Tables 1 and 2 in Attachment 1 and the Class 3 Permit Modification Requests dated July 2008, November 2010, and May 2013 with Permit Tables 1 through 3 are also available electronically on the NMED website at:

<http://www.nmenv.state.nm.us/hwb/cafbperm.html>.

To obtain a copy of the Administrative Record or a portion thereof, in addition to further information please contact Ms. Pamela Allen at (505) 476-6064, or at the address given above. NMED will provide copies, or portions thereof, of the administrative record at a cost to the requestor.

D. Public Participation

Public meetings were arranged by the Permittee and held on June 27, 2012 (July 2008 and October 2010 proposals) and June 5, 2013 (April 2013 proposal) at the Clovis-Carver Public Library, 701 N. Main Street, Clovis NM 88101, in accordance with 20.4.1.901 NMAC as part of the 60-day public comment period on the PMRs required by the regulations at 40 CFR

§270.42(c)(5). NMED did not receive any comments from the public during these comment periods on the PMRs.

NMED issued a public notice on **September 19, 2014**, to announce the beginning of a 60-day comment period that will end at **5:00 p.m. MDT, November 18, 2014**. Any person who wishes to comment on this action or request a public hearing should submit written or electronic mail (e-mail) comment(s) with the commenter's name and address to the physical or e-mail address below. Only comments and/or requests received on or before **5:00 p.m. MDT, November 18, 2014** will be considered.

Dave Cobrain, Program Manager
Hazardous Waste Bureau - New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303
Or via e-mail: dave.cobrain@state.nm.us
Ref: Proposals for CAC for 32 Sites at CAFB

Written comments must be based on the administrative record. Documents in the administrative record need not be re-submitted if expressly referenced by the commenter. Requests for a public hearing shall provide: (1) a clear and concise factual statement of the nature and scope of the interest of the person requesting the hearing; (2) the name and address of all persons whom the requestor represents; (3) a statement of any objections to the proposed action, including specific references; and (4) a statement of the issues which such persons propose to raise for consideration at the hearing. Written comments and requests for Public Hearing must be filed with Mr. Dave Cobrain on or before **5:00 p.m. MDT, November 18, 2014**. NMED will provide a thirty (30) day notice of a public hearing, if scheduled.

E. Next Steps

NMED will notify the Permittee and each person on the facility mailing list of the final decision. The final decision will become effective 30 days after service of the decision unless a later date is specified or unless review is required under New Mexico Hazardous Waste Regulations, 20.4.1.901.A NMAC.

F. Contact Person for Additional Information

For additional information, contact the following individual:

Dave Cobrain, Program Manager
Hazardous Waste Bureau - New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303
Telephone: (505) 476-6055
Fax: (505) 476-6030
e-mail: dave.cobrain@state.nm.us

G. Arrangements for Persons with Disabilities

Any person with a disability and requiring assistance or auxiliary aid to participate in this process should contact J.C. Borrego, NMED, Room S-4303, P.O. Box 5469, 1190 St. Francis Drive, Santa Fe, New Mexico, 87502-6110, TDD or TDY users please access Mr. Borrego's number via the New Mexico Relay Network at 1-800-659-8331.

H. Description of AOCs and SWMUs Proposed for Corrective Action Complete with Controls

1. SWMU 2, Recovered Diesel Tank No. 108

Location

SWMU 2 is a former 2,000-gallon underground storage tank (UST) located near the former Hangar 108, in the west central region of CAFB.

History/Current and Anticipated Future Land Use

A RCRA Facility Assessment (RFA) conducted in 1987 misidentified SWMU 2 as a recovered diesel fuel tank associated with an oil/water separator (OWS) identified as SWMU 3. However, the only storage tank associated with Hangar 108 was a 2,000-gallon UST that was used to store diesel fuel used as heating oil for the building. In 1989, Hangar 108 was demolished and replaced with Hangar 125. During the demolition of Hanger 108, the 2,000-gallon heating oil tank was removed and the site was covered with the concrete floor of Hangar 125.

The current and anticipated land use of SWMU 2 is classified as industrial.

Evaluation of Relevant Information

In 2007 a RCRA Facility Investigation (RFI) was conducted and four soil borings were advanced to depths of 15 to 16 feet below ground surface (bgs) through the concrete floor of Hanger 125. Sample locations were based on institutional knowledge and available demolition drawings. Soil samples were collected from the borings at 10 feet and 15 feet depth intervals and were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and Target Analyte List (TAL) metals.

VOCs, SVOCs and selenium were not detected in any of the soil samples collected. All other TAL metals, except arsenic, were detected at concentrations below New Mexico Soil Screening Levels (SSLs) for residential soil.

Several TAL metals (arsenic, cadmium, calcium, iron, mercury and thallium) were detected at concentrations slightly above subsurface background concentrations determined for CAFB in 1997. None of the metals exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 2 has been determined to be suitable for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with the current applicable state and federal regulations. Risk screening evaluation indicates that, with controls, the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario. Ecological risk screening was not completed because the site is located in an industrial area and the removed UST tank is located beneath a concrete floor inside Hangar 125. The control for this site is limiting it to industrial land use only.

2. SWMU 4, Recovered Diesel Tank No. 121

Location

SWMU 4 is a former 2,000-gallon UST situated near the former location of Hangar 121, in the west central region of CAFB. Hangar 121 was demolished and replaced by Hangar 126.

History/Current and Anticipated Future Land Use

An RFA conducted in 1987 misidentified SWMU 4 as a recovered diesel fuel tank associated with an OWS. However, the only storage tank associated with Hangar 121 was a 2,000-gallon UST which was used to store diesel fuel used as heating oil for the building. In 1989, Hangar 121 was demolished and replaced with Hangar 126. During the demolition, the 2,000-gallon heating oil tank was removed and the former UST location was covered with the concrete floor of Hangar 126.

The current and anticipated land use of SWMU 4 is classified as industrial.

Evaluation of Relevant Information

In 2007 an RFI was completed at SWMU 4. Institutional knowledge and available demolition drawings for Hangar 121 were used to locate the former location of the heating oil UST. Four soil borings were advanced to 15 feet bgs through the concrete floor. Soil samples were collected from the borings at the 10 feet and 15 feet depth intervals and were analyzed for VOCs, SVOCs, and TAL metals.

VOCs and SVOCs were not detected in any of the soil samples collected at SWMU 4. All TAL metals, except arsenic, were detected at concentrations below residential SSLs. Arsenic was detected at concentrations slightly exceeding residential SSLs.

Several TAL metals (arsenic, cadmium, cobalt, mercury and thallium) were detected at concentrations slightly above subsurface background concentrations determined for CAFB in 1997. None of the metals exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 4 has been determined to be suitable for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with the current applicable state and federal

regulations. Risk screening evaluation indicates that, with controls, the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario. Further, contaminants are unavailable to ecological receptors because the former UST is located beneath a concrete floor inside Hanger 126. The control for this site is limiting it to industrial land use only.

3. SWMU 6, Petroleum, Oil and Lubricants (POL) Tank No. 129

Location

SWMU 6 is a former 2,000 gallon UST located near Hangar 129, in the west central portion of CAFB. The site is located between Hangar 129 and the flight line and is covered with asphalt.

History/Current and Anticipated Future Land Use

The 1987 RFA misidentified SWMU 6 as a recovered diesel fuel tank associated with an OWS at the location of SWMU 7. The only storage tank associated with Hangar 129 was a 2,000-gallon UST which was used to store diesel fuel used as heating oil for the building. The UST was moved to the northwest about 30 feet when utility lines to CAFB buildings were converted to use natural gas heat. In 1992, the 2,000-gallon tank was removed from the location of SWMU 6.

The current and anticipated land use of SWMU 6 is classified as industrial.

Evaluation of Relevant Information

When the UST was removed from the location of SWMU 6 in 1992, two confirmatory soil samples were collected and analyzed following NMED Petroleum Storage Tank Bureau (PSTB) guidance at the time. Total petroleum hydrocarbons (TPH) and benzene were detected, but at concentrations below SSLs for residential soil.

An RFI was conducted at SWMU 6 in 2006. Four soil borings were advanced using direct push equipment to a depth of 16 feet bgs. Soil samples were collected from the borings at the 10 feet and 15 feet depth intervals and were analyzed for VOCs, SVOCs, and TAL metals.

No SVOCs were detected above the reporting limits. Benzene was detected once at a concentration below the residential SSLs. No other VOCs were detected. Detected TPH concentrations did not exceed NMED's TPH Screening Guidance. Arsenic was detected at concentrations exceeding residential SSLs but below construction worker SSLs.

Several TAL metals (arsenic, cadmium, calcium and thallium) were detected at concentrations slightly above subsurface background concentrations determined for CAFB in 1997. None of the metals exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 6 has been determined to be suitable for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with the current applicable state and federal regulations. Risk screening evaluation indicates that, with controls, the contaminants present do

not pose an unacceptable level of risk to human health under an industrial land use scenario. Further, contaminants are unavailable to ecological receptors because the former UST is located beneath asphalt paving between Hanger 129 and the flight line. The control for this site is limiting it to industrial land use only.

4. SWMU 34 Aerospace Ground Equipment (AGE) Drainage Ditch

Location

SWMU 34 is located between Buildings 190 and 191 which are located in the northwest quadrant of the main portion of CAFB. SWMU 34 is approximately 1,200 feet long, 12 feet wide, and one foot deep. SWMU 34 originates on the flight line side of the AGE Building 186, and is adjacent to SWMU 31, the AGE Maintenance Shop Pad. It runs parallel to Buildings 191 and 190 in a northeast direction. The ditch terminates at a culvert inlet near Argentina Avenue.

History/Current and Anticipated Future Land Use

SWMU 34 was reportedly formed by a railroad spur's compression of soil into a ditch configuration. The railroad tracks were removed in the late 1960s. Stormwater runoff now flows through the ditch. Stormwater runoff from the AGE Drainage Ditch flows under Argentina Avenue via a culvert to a second drainage ditch that routes the water to the Northeast Stormwater Drainage Area (SWMU 95). The site is characterized as industrial. Several vehicles per day use the road that runs parallel to the ditch. The site is approximately 2,000 feet from the nearest base housing.

Land use is expected to remain industrial in nature.

Evaluation of Relevant Information

In 1983, a Phase I Installation Restoration Program (IRP) Records Search was performed at CAFB to identify and evaluate suspected problems associated with past hazardous material disposal and spill sites. During 1984 and 1985, a Phase II Investigation was conducted to determine if environmental contamination had resulted from runoff into the AGE Drainage Ditch.

In March 1987, a follow-up soil removal investigation was conducted based on results of the Phase II investigation at the AGE Drainage Ditch. Lead was found at a concentration exceeding current NMED Residential SSLs in two samples, both collected in the top one foot of the soil. No other samples contained concentrations of lead greater than the SSL and no samples contained concentrations of TPH greater than gasoline range organics (GRO) and diesel range organics (DRO) cleanup levels.

A Remedial Investigation (RI) of 18 SWMUs, including SWMU 34, was completed in 1991. Several VOCs (toluene, tetrachlorethene, and 1,1,2-trichloroethane) and one polynuclear aromatic hydrocarbon (PAH) (carbazole) were detected in these samples. A baseline risk assessment (BRA) (including an ecological risk assessment) was conducted based on the results of the RI. Based on the analytical results from the investigation, and the risk assessment conducted as part of the RI, the BRA concluded that no further investigation or action was

required at SWMU 34. In 2006, the results and conclusions of the SWMU 34 RI/BRA were reviewed and compared to then current NMED SSLs. The RI analytical results were presented to NMED in the RFI Report. The RFI review indicated that TPH and lead exceeded 2006 NMED residential SSLs. Lead and TPH were detected above the NMED screening level in the one near-surface soil sample collected as part of the 1987 RI at SWMU 34. The RFI report was reviewed by NMED, and based on NMED comments issued in reference to the above mentioned lead and TPH levels; additional sampling at SWMU 34 was suggested to further characterize the site. Based on the elevated TPH and lead results, near surface soil samples were collected in October 2008. TPH DRO and lead were detected in all samples. The maximum TPH DRO concentration in near surface soil was below the 2012 NMED residential screening guideline for diesel #2/crankcase oil as well as the value for unknown oil. TPH GRO was not detected in any samples.

Basis of Determination

SWMU 34 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation (including ecological risk assessment) indicated that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario. The control for this site is limiting it to industrial land use only.

5. SWMU 78 Fire Training Area No. 1

Location

SWMU 78 is located in the northeast corner of the Base, south of the railroad tracks and northeast of Perimeter Road. The training area is an unlined, circular surface feature approximately 70 feet in diameter.

History/Current and Anticipated Future Land Use

Between 1959 and 1968, the site was used twice monthly when approximately 300 gallons of waste oils, solvents, and fuels were poured on the ground surface and then ignited to create fires for fire suppression training. The site has been inactive and unused since 1968, other than routine mowing once a month, six months out of the year.

Land use is expected to remain industrial in nature.

Evaluation of Relevant Information

An RI/BRA (including assessment of ecological risk) was completed for the site in 1992. The BRA concluded that no unacceptable human health or ecological risks due to chemical releases were expected from SWMU 78. The RI/BRA analytical results were reevaluated and compiled into an RFI Report, which was submitted to the NMED. As part of the RFI, a conceptual site model (CSM) was developed based on historical site information. The most significant exposure pathways include inhalation of fugitive dust and direct contact with soil resulting in incidental ingestion or dermal absorption of chemicals from soil. Potential human receptors for these

pathways include adult general duty workers and construction workers. Future residential exposure is not anticipated because of the industrial nature of this site and the surrounding area. In addition, the site is less than one-half acre in size, so the potential for major soil excavation and future construction of residential homes within the area of this SWMU is low. NMED reviewed the RFI Report and subsequently requested additional sampling at SWMU 78 to further characterize the site due to the presence of elevated lead and TPH.

RFI Addendum Activities were performed in 2008. Samples for TPH DRO and TPH GRO analysis were submitted to the laboratory based on visible staining/odor and elevated photo-ionization detector (PID) readings. Lead samples were submitted to the laboratory based on x-ray fluorescence (XRF) field screening results. TPH-GRO was not detected in the 2008 RFI Addendum samples. While lead is still present at concentrations above the residential and industrial screening levels, TPH DRO is below the residential screening level for unknown oil.

Basis of Determination

SWMU 78 is proposed for Corrective Action Complete with Controls. Based on the results of the BRA and CSM, the small size of the area combined with its extremely limited use supports the determination. Because the average lead concentration at the site is below the residential screening level for lead, and only a single lead concentration exceeded the industrial SSL, Corrective Action Complete with Controls is appropriate for SWMU 78. The BRA also concluded that the site did not pose unacceptable risk to ecological receptors. The control for this site is limiting it to industrial land use only.

6. SWMU 82, Landfill No. 2

Location

SWMU 82, Landfill No. 2, occupies approximately 15 acres of vacant, grass-covered land in the northeast corner of CAFB.

History/Current and Anticipated Future Land Use

The landfill accepted wastes from 1946 to 1947 and again from 1952 to 1959. The landfill's operation reportedly consisted of placing waste in trenches and burning it before burying it. The landfill reportedly received domestic solid wastes and shop wastes, which included; waste oils, solvents, paint strippers and thinners, outdated paint, pesticide containers, and various empty cans and drums.

The current and anticipated land use of SWMU 82 is classified as industrial.

Evaluation of Relevant Information

A geophysical survey was conducted as part of a 1993 RFI to identify landfill cell locations. A subsurface soil investigation was then designed based on the locations of the interpreted cells. The subsurface soil investigation included digging a 28-foot-long trench into one of the landfill cells. Landfill materials were excavated and field screened with an organic vapor analyzer

(OVA). No OVA readings were above background levels. The landfill material and cap were replaced.

Five surface samples and 108 subsurface soil samples (ranging from 11 to 76 feet bgs) obtained from fifteen soil borings were analyzed for VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs), and TAL Metals. Low levels of several VOCs, SVOCs, pesticides, TPH and one PCB were detected in surface and subsurface soil samples at concentrations less than SSLs for the residential land use scenario, with the exception of benzo(a)pyrene. Benzo(a)pyrene was detected in 4 of 108 samples. The sample in which it exceeded SSLs for the residential scenario was collected from 22 feet bgs, where exposure to future residents, industrial workers or construction workers is not expected.

Many of the detected TAL metals were present at concentrations slightly exceeding CAFB background. However, no metals were identified as statistically greater than background based on mean comparison tests. The maximum concentration of manganese exceeded the NMED SSL for the construction worker. All other TAL metal concentrations were below SSLs for the residential scenario. None of the contaminants exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 82 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario or to ecological receptors. The control for this site is limiting it to industrial land use only.

7. SWMU 85 Stormwater Collection Point

Location

SWMU 85 is a naturally occurring nine-acre playa lake that collects stormwater runoff from the flight line. The lake is located in the southwestern part of CAFB.

History/Current and Anticipated Future Land Use

The playa lake that makes up SWMU 85 has collected stormwater runoff from the flight line since 1943. Stormwater runoff flows toward the center of the site where it either evaporates or percolates into the soil. The eastern third of the playa is filled with broken concrete from apron and runway demolition that has occurred throughout the years. SWMU 85 is located in an area characterized by the CAFB Comprehensive Plan as an Open Area. Open Areas are defined as conservation areas and require buffer space

Land use will remain industrial in nature and the site will continue to be used as a stormwater detention pond.

Evaluation of Relevant Information

As part of the IRP Phase II, soil samples were collected from three, shallow soil borings that were hand-augured, two near the center of the basin and one near the inlet; samples were collected at depths of three to four feet bgs. Saturated conditions existed at each location at depths of four feet and greater and prevented the collection of samples from a depth of five feet bgs, as planned. The samples were analyzed for priority pollutant metals plus iron, nickel, zinc, oil and grease, and VOCs. No VOCs were detected in any of the samples collected at SWMU 85 during the IRP Phase II. One sample contained oil and grease at a low level. Many of the metals detected exceeded the background range, which could potentially be attributed to the presence of caliche and calcium carbonate cemented sands. One soil boring located in the deepest part of the playa had metal concentrations higher than the other two soil borings. The IRP Phase II recommended additional investigation to evaluate the potential concentrations of metals towards the center (deeper) part of the playa.

An RI was conducted at SWMU 85 in 1990 to characterize three areas: the discharge channel, the active playa, and the fill area containing broken concrete from apron and runway demolitions. No organic compounds were detected in any of the samples collected. Three metals (barium, mercury, and selenium) were detected at concentrations slightly above background. The RI also included an ecological and human health risk assessment that identified barium, mercury, and selenium as chemicals of potential ecological concern (COPECs).

The results of previous investigations were reviewed as part of the 2007 RFI, and the conclusions for SWMU 85 were presented in the RFI report. The initial RFI determined that no chemicals of potential concern (COPCs) were present for the construction worker scenario applicable to the site. Additionally, no unacceptable ecological risks were identified as a result of the evaluations performed during the RFI, which included data and results from previous investigations or associated risk evaluations. However, the NMED letter response dated May 14, 2008 to the initial RFI report recommended additional investigation for SWMU 85.

The subsequent RFI Addendum Report recommended Corrective Action Complete with Controls for SWMU 85 based on the results of the IRP Phase II and RFI evaluations. NMED approved the RFI Addendum Report on July 7, 2010.

Basis of Determination

SWMU 85 is proposed for Corrective Action Complete with Controls designating it as an industrial area. Arsenic is the only chemical of concern at the site and was detected above the NMED residential SSL in only one surface soil sample at a low concentration, slightly above the established CAFB background value. The site is unlikely to be developed and will remain an industrial area with very little human contact. The 250-foot depth to groundwater combined with the only high arsenic detection being at the surface make this site unlikely for any leaching of contaminants to groundwater. The control for this site is limiting it to industrial land use only. The RFI concluded that there are no unacceptable risks to ecological receptors.

8. SWMU 95 Northeast Stormwater Drainage Area

Location

SWMU 95 is a shallow, open ditch that begins near the end of the northeastern runway, and extends to the southeast under an access road before emptying into an open field.

History/Current and Anticipated Future Land Use

The northwest end of the ditch is marked by a concrete culvert and is surrounded by heavy vegetation. The drainage ditch is approximately 40 feet wide and runs for approximately 550 feet until it reaches the field. SWMU 95 started receiving runoff from the runways in 1953 and is currently active. The majority of flow in the ditch occurs as stormwater runoff from precipitation events. No other buildings or structures exist in the area adjacent to SWMU 95. The primary facility located near SWMU 95 is the active northeast-southwest runway located northwest of the unit. The vegetation is not mowed and is not frequented by base personnel.

Land use is expected to remain industrial in nature.

Evaluation of Relevant Information

The site was investigated during a Final IRP RI in 1990. The investigation included drilling and sampling of 11 soil borings to characterize the drainage channel located northwest of the access road and the open field that receives the drainage located southeast of the road. Samples were analyzed for Resource Conservation and Recovery Act (RCRA) metals, TPH, VOCs, and base/neutral extractable compounds. Long-chain organic compounds were detected at a shallow depth (upper three feet of sediment) in one soil boring near the northwest end of the drainage ditch. Selenium and barium were detected in concentrations above area background concentrations.

An RI was completed at SWMU 95 in 1992 to provide additional information regarding the nature and extent of contaminants upstream. Two soil borings were drilled and sampled to maximum depths of 10 feet bgs, with one surface and three subsurface soil samples collected from each soil boring. The soil borings were located near the upstream end of SWMU 95 to evaluate possible contaminant contributions from areas upstream of the already-sampled reach of the ditch. A BRA was completed in 1992 based on data collected during the RI. As a result of the BRA, lead and zinc were identified as the only COPCs for inclusion in a human health risk evaluation. Calculations of risk to human health for non-carcinogenic and carcinogenic risks indicated no unacceptable risk. No unacceptable ecological risks were identified and no further action was recommended.

A CSM was developed based on historical site information as part of the RFI in 2007. The primary chemical sources at the Northeast Stormwater Drainage Area include fuel-related hydrocarbons and metals. Hydrogeological and soil/metal interactions are such that significant movement of metals is not anticipated. The site is a naturally occurring drainage area in an isolated, vegetated area outside of traffic pathways.

The only potential human exposure pathways are for low frequency visits by the industrial (maintenance) worker and excavation (construction) worker. Even though the site is greater than one-half acre, construction of residential homes in this area is highly unlikely given that the area is a natural drainage ditch and it would require a major earthmoving effort to fill or divert the natural runoff pattern in order to allow construction of residential homes.

The RFI report was reviewed by NMED, and based on NMED comments regarding arsenic levels, additional sampling at SWMU 95 was proposed to further characterize the site.

In October 2008, four soil borings were advanced to 15 feet bgs at SWMU 95. Arsenic was detected in all soil samples collected for chemical analysis. The maximum arsenic concentrations have been compared with current residential NMED SSLs. The maximum arsenic concentration in near surface soil slightly exceeded both the 2012 NMED residential SSL for arsenic and the CAFB background level for subsurface soil. The maximum arsenic concentration detected in subsurface soils (i.e., soils from depths greater than two-feet) was below the 2012 NMED residential SSL.

Basis of Determination

SWMU 95 was proposed for Corrective Action Complete with Controls. Arsenic is the only contaminant at the site, and was only detected slightly above the 2012 NMED residential SSL in one surface soil sample at a low concentration above the established background value for CAFB. The site is highly unlikely to be developed and will remain an industrial area with very little human contact. The control for this site is limiting it to industrial land use only.

9. SWMU 96, Old Entomology Rinse Area (IRP Site SD-17)

Location

SWMU 96, known as the Old Entomology Rinse Area, was located behind Building 2160 (Pesticide Storage Building) which was abandoned in October 1983 and demolished in September 1984. The site is located at the eastern end of CAFB.

History/Current and Anticipated Future Land Use

Pesticide and herbicide application equipment was cleaned in a sink located within Building 2160. The sink drained into a three-foot-square and two-foot-deep pit at the rear of the building. The bottom of the pit was reported to be unlined.

The current and anticipated land use of SWMU 96 is classified as industrial.

Evaluation of Relevant Information

An IRP Phase II investigation of SWMU 96 was conducted in 1986. Three soil borings were drilled to depths of approximately 60 feet bgs. Ten samples were analyzed for arsenic, mercury, herbicides, pesticides, purgeable halocarbons and aromatics. No organophosphates, halocarbons or aromatics were detected. The herbicide 2,4-D was detected at concentrations less than

residential SSLs in four samples. The concentration of arsenic in two samples slightly exceeded CAFB background levels and current residential NMED SSLs.

An RFI was conducted in 1986. Four soil borings were advanced to 62 feet and four were advanced to depths of 100 feet. Samples were collected at intervals of 10 feet plus additional samples were collected in all eight borings at 61 and 62 feet bgs. Pesticides were detected at concentrations below SSLs in surface and near-surface samples. No herbicides were detected in any samples.

One surface soil sample was collected near the foundation of Building 2160 in October 1990 and analyzed for pesticides. None were detected at concentrations exceeding SSLs.

A BRA, reported in 1992, concluded that pesticides and metals identified as COPCs do not pose an unacceptable level of risk to human health under a residential land use scenario or to ecological receptors.

A Supplemental RFI was conducted in 1994 to define potential contamination of the soils beneath the suspected rinse sink pit location. One soil boring was drilled to 102 feet bgs and samples were collected at 10-foot intervals. The soil samples were analyzed for VOCs, SVOCs, PCBs, TAL metals, TPH, and pesticides. Detections of low concentrations of VOCs and TPH were attributed to laboratory contaminants. None of the pesticides detected in 1994 were at concentrations greater than applicable SSLs for the residential land use scenario. Only arsenic slightly exceeded residential SSLs. The concentrations of arsenic and mercury were slightly above subsurface background concentrations determined for CAFB in 1997. Neither of the contaminants exceeded site-specific soil to groundwater screening levels.

A monitoring well (MW-K) was installed in 1988, within the boundaries of nearby SWMU 97, and groundwater samples were analyzed for PCBs, pesticides, and TAL metals. No pesticides or PCBs were detected in groundwater. Seven metals were detected in the groundwater sample, but only lead slightly exceeded United States Environmental Protection Agency (US EPA) Maximum Concentration Levels (MCLs).

Long Term Monitoring (LTM) of ground water has been conducted at the site since 1997 when the monitoring well MW-R was installed to replace well MW-K. Throughout the LTM, VOCs and phthalates have been periodically detected, but only at concentrations below US EPA MCLs or New Mexico Water Quality Control Commission (WQCC) standards. The presence of several metals was attributed to degradation of the stainless steel screen in monitoring well MW-R. The monitoring well was replaced with a polyvinyl chloride (PVC) constructed well, MW-Ra, in December 2000. No metals have exceeded regulatory criteria since the installation of MW-Ra. LTM continues as part of remedial action taken at SWMU 97.

Basis of Determination

SWMU 96 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under a residential land use scenario or to ecological receptors. Continued LTM will provide necessary control at the site as will requiring that the site use will remain industrial.

10. SWMU 97, LANDFILL NO. 25 (LF-25)

Location

SWMU 97, Landfill No. 25 (IRP Site No. LF-25), is located in the east-central portion of CAFB, bound to the north by a road leading to the ordnance area, to the south by a road leading to the north side of Playa Lake, to the east by the ordnance area, and to the west by Perimeter Road. The landfill is nearly rectangular in shape, measuring approximately 29 acres, with dimensions of approximately 650 feet by 1,950 feet.

History/Current and Anticipated Future Land Use

From approximately 1945 through the 1980s, SWMU 97 was used as a waste disposal site, and it is unknown when disposal activities ceased. After World War II, construction demolition debris was disposed of at the landfill. The debris consisted of concrete, wood, asbestos tiles, metal, transite (asbestos), concrete pipe, and asphalt mixed with soil.

Land use classification will continue to remain industrial in nature.

Evaluation of Relevant Information

In 1992, an initial RFI (Radian 1994b) was performed to confirm and further define subsurface soil contamination at this site. In addition to the excavation of a limited number of trenches, 139 soil samples were collected. The samples were analyzed for VOCs, SVOCs, total metals, TRPH, pesticides, and PCBs.

As part of the RFI, a BRA and Ecological Risk Assessment (ERA) were also conducted. The BRA identified benzene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, beta-BHC, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dichloroprop, diesel fuel, fluoranthene, heptachlor epoxide, heptachlor, hydrocarbons, 2-(2-methyl-4-chlorophenoxy) propionic acid (MCPP), methylene chloride, pyrene, toluene, aluminum, arsenic, manganese, thallium, vanadium, and zinc as COPCs, but also stated that they were present in concentrations that did not pose an unacceptable risk to human health. The ERA stated that the impact to area wildlife from these COPCs was low.

An RFI Phase II was completed in 1994 (W-C 1995) to evaluate for the presence or absence of contamination in groundwater beneath the landfill. Groundwater samples were collected and analyzed for VOCs, SVOCs, TAL metals, TRPH, pesticides/PCBs, and chlorinated herbicides. Carbon disulfide, methylene chloride, toluene, 2-methylphenol, and GRO were detected in groundwater along with seven metals. None of the analytes were detected at concentrations that exceeded historical USEPA MCLs or New Mexico Groundwater Quality Standards (NMGWQS).

Long Term Monitoring (LTM) of groundwater has been conducted at this site since 1996. Throughout the LTM, VOCs and phthalates have been periodically detected, but not at concentrations that exceeded historical USEPA MCLs or NMGWQSs. Chromium, iron, and nickel have been detected at concentrations which exceeded historical NMGWQSs. Aluminum,

iron, and manganese have been detected at concentrations which have exceeded historical secondary MCLs. The elevated chromium, iron, manganese, and nickel concentrations were thought to have been caused by the degradation of the metal screen in the monitoring well.

A comparison of historical maximum soil contaminant concentrations from this site to updated screening criteria indicates that benzo(a)pyrene, TRPH, and arsenic concentrations exceed the current NMED Residential SSLs.

A December 2007 letter from NMED to CAFB (NMED 2007) stated that Landfill No. 25 no longer required corrective action aside from biennial groundwater monitoring, establishing and maintaining a vegetative cover, and repairing any damage caused by erosion.

Basis of Determination

SWMU 97 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario or to ecological receptors. The control for this site is limiting it to industrial land use only.

11. SWMU 102, Wastewater Treatment Effluent Discharge

Location

SWMU 102, Wastewater Treatment Effluent Discharge, is located near the eastern boundary of CAFB, between the southern sewage lagoon (SWMU 101) and Playa Lake (SWMU 103).

History/Current and Anticipated Future Land Use

SWMU 102 was an effluent discharge that directed wastewater from the former sewage lagoons (SWMU 101) to the self-contained Playa Lake (SWMU 103) to the east. The site consisted of an inlet chamber equipped with two slide gates and a discharge pipe that carried effluent underground from the inlet chamber to Playa Lake.

The current and anticipated land use of SWMU 102 is classified as industrial.

Evaluation of Relevant Information

An RFI was conducted in 2007. Institutional knowledge and Base drawings were used to locate the discharge area. Soil borings were advanced to depths of 16-17 feet bgs at four locations along the approximate 80 foot length of the discharge pipe. Soil samples were collected from the five to seven-foot depth interval and, depending on the total depth of the boring, from the 15- to 17-foot depth interval or the 14- to 16-foot interval, beneath the bottom of the underground discharge pipe. Samples were analyzed for the presence of VOCs, SVOCS, pesticides, and TAL metals.

Two VOCs (toluene and xylene) were detected in one sample at very low concentrations that did not exceed any NMED SSL. No SVOCS or PCBs were detected above reporting limits. Five

pesticides were detected (4,4-DDE, 4,4-DDT, alpha- and gamma-chlordane, and gamma-BHC), but at concentrations that did not exceed NMED SSLs. Arsenic and thallium slightly exceeded NMED SSLs for residential soil. Arsenic, cadmium, calcium, mercury, and thallium exceeded CAFB background levels. None of the contaminants exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 102 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario or to ecological receptors. The control for this site is limiting it to industrial land use only.

12. SWMU 104, Landfill No. 4

Location

SWMU 104, Landfill No. 4 (IRP Site No. LF-04) is an inactive, unlined, cut-and-fill landfill occupying approximately 6.3 acres along the eastern boundary of CAFB. This SWMU is bound to the north by an unused portion of Perimeter Road, to the east by a vacant field, to the south by the Playa Lake, and to the west by a barbed wire fence.

History/Current and Anticipated Future Land Use

SWMU 104 accepted wastes during 1967 and 1968. The landfill's operation apparently consisted of placing waste in trenches and burning it before burying it. The landfill reportedly received domestic solid wastes and shop wastes, which included waste oils and solvents, paint strippers and thinners, outdated paint, pesticide containers, and various empty cans and drums.

Land use classification will continue to remain industrial in nature.

Evaluation of Relevant Information

An initial RFI was conducted in 1992 (Radian 1994c). Ten soil borings were completed to depths of 60 feet bgs, and 120 samples were collected. The soil samples were analyzed for VOCs, SVOCs, TRPH, organo-chlorine pesticides, PCBs, and TAL metals. Thirty of the samples were also analyzed for TPH, total purgable TPH, and chlorinated herbicides. VOCs, organo-chlorine pesticides, Aroclor-1260, diesel fuel, TRPH, and herbicides were detected in some samples but did not exceed historical NMED residential SSLs.

As part of the RFI, a BRA and ERA were also conducted. The BRA identified several chemicals as Compounds of Potential Concern (COPCs), but also stated that the COPCs were present in concentrations that did not pose an unacceptable risk to human health. The ERA stated the impact to area wildlife from these COPCs was low.

LTM of groundwater has been conducted at this site since 1996. Throughout the LTM, VOCs and metals have been detected at concentrations below NMGWQSs and USEPA MCLs.

A December, 2007, letter from NMED to CAFB (NMED 2007) stated that Landfill No. 4 no longer required corrective action aside from biennial groundwater monitoring, establishing and maintaining the vegetative cover, and repairing any damage caused by erosion.

Basis of Determination

SWMU 104 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario or to ecological receptors. The control for this site is LTM and limiting the site to industrial land use only.

13. SWMU 105, Landfill No. 3 (LF-03)

Location

SWMU 105, Landfill No. 3 (IRP Site No. LF-03) is an inactive, unlined, cut-and-fill landfill occupying approximately 3.5 acres along the eastern boundary of Cannon AFB. This SWMU is bound to the north by a road leading to the Base's transmitter tower, to the east by barbed wire fences installed along the Base's boundary, and to the west by Perimeter Road.

History/Current and Anticipated Future Land Use

SWMU 105 accepted wastes between 1959 and 1967. The landfill's operation apparently consisted of placing waste in trenches and burning it before burying it. The landfill reportedly received domestic solid wastes and shop wastes, which included waste oils and solvents, paint strippers and thinners, outdated paint, pesticide containers, and various empty cans and drums.

Land use classification will continue to remain industrial in nature.

Evaluation of Relevant Information

In 1992, an RFI was conducted at this site (Radian 1994). Twelve soil borings were drilled and a total of 144 soil samples were collected, primarily at depths between 20 to 61 feet bgs. Samples were analyzed for VOCs, SVOCs, and TRPH, organo-chlorine pesticides, PCBs, and TAL metals. Several VOCs, diesel fuel, TRPH, bis(2-ethylhexyl)phthalate, organo-chlorine pesticides and PCB Aroclors 1254 and 1260 were detected in low concentrations. None of the detected analytes exceeded historical NMED SSLs.

As part of the RFI, a BRA and ERA were also conducted. The BRA identified aldrin, beta-BHC, delta-BHC, gamma-BHC, bis(2-ethylhexyl)phthalate, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, diesel fuel, heptachlor epoxide, hydrocarbons, tetrahydrofuran, toluene, and trichloropropene as COPCs, but also stated that they were present in concentrations that did not pose an unacceptable

risk to human health. The ERA stated the impact to area wildlife from these COPCs was low.

LTM of groundwater has been conducted at this site since 1996. Throughout the LTM, VOCs, SVOCs, GRO, and metals have been detected but all detections were at concentrations below historical NMGWQSs and USEPA MCLs.

Basis of Determination

SWMU 105 is proposed for Corrective Action Complete with Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under an industrial land use scenario or to ecological receptors. The control for this site is LTM and limiting the site to industrial land use only.

I. Description of AOCs and SWMUs Proposed for Corrective Action Complete Without Controls

1. AOC B, JP-4 Jet Fuel Spill Site I (IRP Site SS-18)

Location

AOC B, jet propellant (JP-4) Jet Fuel Spill Site I was located on the south parking apron, southwest of the former location of Building 120 (CH2M Hill 1983). Since the time of the spill, Building 120 has been moved to a new location and a new facility (Building 133) has been constructed near the site. The site is flat and paved with concrete.

History

AOC B is located on an airfield apron where a JP-4 fuel spill resulted from a broken fuel coupling on an aircraft fuel tank. During attempts to repair the coupling, the leak intensified. No attempt was made to recover the small amount of fuel believed to have entered the ground through construction joints and cracks in the apron (CH2M Hill 1983).

Evaluation of Relevant Information

A Phase I IRP Records Search evaluated the potential existence of contamination at AOC B and stated that the site did not present any significant risks of adverse effects on human health or the environment (CH2M Hill 1983). However, the records search did not include any investigative activities.

A Preliminary Review/Visual Site Inspection (PR/VSI) was completed at AOC B to assess the potential for releases to the environment (A.T. Kearney 1987). Based on the PR/VSI, no further action was suggested for AOC B.

As part of the preparations for construction of a new hangar, 13 soil borings were drilled and sampled within 600 feet of AOC B by Radian Corp. in 1992. One of these borings (BH-7) was completed within 100 feet of AOC B. Samples from these borings were analyzed for total

recoverable petroleum hydrocarbons (TRPH), TPH purgeables, TPH extractables, and VOCs. None of the analytes were detected in one sample and no significant concentrations of analytes were present in the remaining samples. All chemical concentrations from each of the 13 borings were below the existing NMED residential SSLs (HARZA 1997b).

Based on a January 12, 2004 letter from NMED to CAFB, a supplemental assessment of AOC B was completed in 2005 (URS 2005). Two soil borings were drilled to depths of 23.9 and 23.4 feet bgs, respectively, in the vicinity of the former spill site. Four soil samples were collected and analyzed from the two borings. The soil samples were analyzed for VOCs, SVOCs, and lead. Seven of the eight VOCs detected in samples from AOC B were present in concentrations below or slightly above the reporting limits. The exception, toluene, was present at a maximum concentration that was well below the NMED residential SSL.

However, two of four chloroform concentrations detected at AOC B exceeded the default NMED SSL for the migration to groundwater pathway. Therefore, a site-specific migration to groundwater SSL for chloroform at AOC B was developed in accordance with NMED guidance (NMED 2006). The site-specific migration to groundwater SSL calculated for chloroform, was above the maximum concentration identified at AOC B. Therefore, no further assessment of chloroform was warranted at AOC B (URS 2005). In May 2007, NMED accepted the supplemental assessment report, that recommended no further action for this site.

Basis of Determination

AOC B is proposed for Corrective Action Complete without Controls. The AOC has been characterized or remediated in accordance with current applicable state and/or federal regulations, and the available data indicated that contaminants pose an acceptable level of risk under current land use.

2. AOC C, Blown Capacitor Site (IRP Site OT-10)

Location

AOC C is located near the northwest corner of the Base near the fairway of Hole No. 13 on the golf course, approximately 300 feet northwest of Facility No. 1437.

History

AOC C is a site where several power capacitors ruptured and spilled small quantities of oil reportedly containing PCBs. The incident occurred in 1978 when lightning struck a pole which housed a total of six capacitors. Approximately six gallons of dielectric oil, believed to contain PCBs, spilled onto the ground. This grass-covered site slopes slightly to the south.

Evaluation of Relevant Information

The residual oil and contaminated soil were excavated and drummed immediately following the incident. The contaminated soil was placed in 55-gallon drums and sent off site for disposal by the Defense Property Disposal Office (CH2M Hill 1983). The drummed soil was disposed of off

base in a permitted disposal facility (Kearney 1987). The site was not recommended for a Phase II investigation as the clean-up activities were considered adequate to eliminate the potential for contamination (CH2M Hill 1983).

A PR/VSI was completed at AOC C to assess the potential for releases to the environment (Kearney 1987). Based on the PR/VSI, no further action was recommended for AOC C. No visible evidence of the spill was observed during an April 1992 site visit.

Based on a January 12, 2004 letter from NMED to CAFB (NMED 2004), a supplemental assessment of AOC C, was completed in 2005 (URS 2005). Three soil borings were drilled to depths of 15, 10, and 10 feet bgs respectively, in the vicinity of the power pole that once supported the capacitors. Ten soil samples were collected and analyzed from the three borings. No PCBs were detected in any of the 10 samples collected at AOC C. Ecological screening was not completed because the site is located in an industrial area. In May 2007, NMED accepted the supplemental assessment report, which recommended no further action for this site without comment.

Basis of Determination

AOC C is proposed for Corrective Action Complete without Controls. The AOC has been characterized or remediated in accordance with current applicable state and/or federal regulations, and the available data indicate that contaminants pose an acceptable level of risk to human health under current land use.

3. SWMU 10, POL Tank No. 170

Location

SWMU 10 is a former 2,000 gallon UST located near the former Hangar 170, in the central portion of CAFB.

History

The 1987 RFA misidentified SWMU 10 as a recovered diesel fuel tank associated with an OWS located at SWMU 11. The only storage tank associated with Hangar 170 was a 2,000-gallon UST, which was used to store diesel fuel as heating oil for the building. In 1992, the 2,000-gallon tank was removed from the location of SWMU 10.

Evaluation of Relevant Information

In 1992, the 2,000 gallon heating oil tank was removed from the suspected location of SWMU 10 and confirmatory samples were collected following NMED UST regulations at the time. Two soil samples were collected and analyzed for the presence of TPH and VOCs. TPH was detected at concentrations below residential and industrial NM SSLs. No VOCs were detected. Ecological screening was not completed because the site is located in an industrialized area. In a letter dated 14, 2008, NMED indicated CAFB may petition for a CAC without Controls determination for SWMU 10.

Basis of Determination

SWMU 10 has been determined to be suitable for Corrective Action Complete without Controls. The SWMU has been characterized in accordance with the current applicable state and federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under a residential land use scenario.

4. SWMU 31 Aerospace Ground Equipment (AGE) Maintenance Shop Pad

Location

SWMU 31 is located immediately adjacent to and southeast of Building 186, the former AGE maintenance facility.

History

The AGE Maintenance Shop Pad was active from 1971 until 2008 when the AGE maintenance operations moved to its current location northeast of Building 186, which is now vacant. The maintenance pad is an open, concrete area adjacent to the southeastern side of the former AGE maintenance shop in Building 186. The maintenance pad is approximately 60 to 70 feet wide and 240 to 280 feet long. An open wash pad occupies a 45-square-ft area beyond the southeastern edge of the maintenance pad. The AGE Drainage Ditch (SWMU 34) is located southeast of the maintenance pad and conveys runoff to the northeast.

Maintenance on aeronautical ground equipment was formerly performed in Building 186 and on the southern and eastern sections of the pad. The open wash pad was frequently used to wash and clean support vehicles and equipment. The wash pad was drained separately to an adjacent OWS. The original OWS was removed and replaced with another OWS in February 1997. A portion of the drainage from the maintenance pad reportedly flowed into a sand trap at the northwestern corner of the wash pad and emptied into the OWS.

Evaluation of Relevant Information

A Phase I RCRA Facility Investigation (RFI) was conducted in 1993 to investigate potential impacts to soil associated with activities performed at the AGE Maintenance Shop Pad (Woodward-Clyde, 1994). Surface and subsurface soil samples were collected from four 10-foot soil borings drilled in areas where wash-down water from the maintenance pad enters the AGE Drainage Ditch and along expansion joints or cracks in the pad. Sample analyses included VOCs, SVOCs, TAL metals, and total recoverable petroleum hydrocarbons (TRPH). SVOCs were only analyzed in surface soil samples and at selected depth intervals to support risk assessment. Analytical results for samples collected during the Phase I RFI indicated the presence of tetrachloroethene (PCE) at low concentrations in surface soil in one soil boring. PAHs and ten metals were found in several samples. TRPH was detected in four soil samples.

The Phase II RFI was conducted in 1994 to assess and define the extent of soil contamination at SWMU 31. Three soil borings were each drilled to a depth of 10 feet, and soil samples were collected at the maintenance pad to further assess the lateral and vertical presence and extent of site-related soil contaminants at the 10-foot depth interval (Woodward-Clyde, 1995). Samples

were analyzed for VOCs, SVOCs, TAL metals, and TRPH. Two VOCs, three PAHs, TRPH and several metals were reported present in the samples. The Phase II RFI concluded that the asphalt present at the site was likely the source of PAHs detected in soil (Woodward-Clyde, 1995). The Phase II RFI concluded that it is likely that imported fill material present beneath the asphalt and concrete across the site may account for the elevated levels of metals.

In February 1999, a limited soil removal activity was conducted where TRPH, lead, and chromium had been detected at concentrations exceeding background or action levels identified during the Phase I RFI conducted at SWMU 31. A backhoe was used to remove soil from this area which resulted in an excavated area that measured 10 feet by five feet and was two feet deep (Foster Wheeler Environmental, Inc. [Foster Wheeler], 1999). Confirmation samples collected from the excavation indicated that contaminated soil had been removed. The excavation was backfilled with clean fill and re-vegetated with cultivated grass (Foster Wheeler, 1999).

At the request of NMED, CAFB performed a Corrective Measures Study (CMS) to evaluate remedial alternatives for SWMU 31. The CMS included a human health risk assessment, ecological risk assessment, and vadose zone fate and transport modeling. In summary, the potentially complete human exposure pathways at SWMU 31 identified by the CMS in 2007 include exposure of potential occupational receptors, construction workers, and trespassers (URS Greiner Woodward-Clyde, 2007). An ecological risk evaluation was conducted to support the CMS (URS Greiner Woodward-Clyde, 2007) using data collected during the Phase I and Phase II RFIs. Based on conditions at the site at the time of the risk evaluation of SWMU 31, the ecological risk evaluation concluded the site did not contain any significant ecological component such that a formal ecological risk assessment would be warranted (URS Greiner Woodward-Clyde, 2007). Based on the results of the evaluations of human health and ecological risk, along with the limited soil removal activity voluntarily conducted in 1999, no further action was the selected corrective measure alternative for SWMU 31 in the CMS (URS, 2007). NMED approved the CMS in its March 26, 2008 letter.

Based on the results of the previous site investigations, the CMS, and data evaluations, CAFB performed a Voluntary Corrective Action (VCA) at SWMU 31 to address petroleum hydrocarbons in soil. Based on observations made regarding soil staining and headspace screening results, an area of approximately 3,000 square feet was recommended for excavation to a depth of two feet bgs (TtEC, 2010). It was also recommended that an additional 900 square foot area be excavated to a depth of four feet bgs (TtEC, 2012). After removal of the concrete wash pad, excavation was implemented and approximately 500 cubic yards of petroleum contaminated soil and concrete debris were removed from the site. The excavation was completely backfilled using clean, crushed concrete from a source at CAFB. The site was restored by paving the area with asphalt per CAFB specifications during the first quarter 2010.

Basis of Determination

SWMU 31 is proposed for Corrective Action Complete without Controls. The concrete wash pad at SWMU 31 has been removed and no soil samples contained contaminants at concentrations greater than action levels as shown in the confirmation samples of both the VCAs performed in 1999 and 2008. Results indicated there were no exceedences of the 2012 TPH guideline. There were no visible signs of stained soil or elevated headspace screening results for soil remaining

within the excavation floor or sidewalls. There is no unacceptable human health or ecological risk from the SWMU. Since the VCAs, a new storm drain culvert has been installed and an asphalt parking lot covers the former Maintenance Shop Pad.

5. SWMU 50, Inactive POL Storage Tank No. 4028A

Location

SWMU 50 is located in the north central portion of CAFB approximately 125 feet east of the intersection of Argentia Avenue and Torch Boulevard.

History

An RFA conducted in 1987 described SWMU 50 as an inactive POL storage tank associated with Facility No. 4028, a historical gas station built during the World War II era. There are three other SWMU sites associated with the historical gas station; 48A, 48B, and 49. The description of SWMU 50 is very similar to the description of SWMU 48A. According to CAFB records, SWMU 50 is a duplication of SWMU 48A.

Evaluation of Relevant Information

SWMU 50 is a duplicate of SWMU 48A, and therefore no investigation of SWMU 50 has taken place. Investigations are ongoing at SWMU 48A.

Basis of Determination

SWMU 50 is proposed for Corrective Action Complete without Controls because the SWMU is a duplicate of SWMU 48A.

6. SWMU 72, Oil Water Separator No. 390

Location

SWMU 72 was described as an underground 2,000 gallon tank located in the Bulk Storage Area in the Cantonment Area, Cluster H. The SWMU is located along the north central boundary of CAFB.

History

An RFA conducted in 1987 described SWMU 72 as a 2,000-gallon UST located in the Bulk Storage Area of the Cantonment Area, Cluster H, associated with OWS No. 390. The description was nearly identical to the description of SWMU 71. SWMU 71 was a 2,000-gallon UST removed in 1991 and no evidence of an OWS was found at that time. An OWS was installed after the removal of SWMU 71, but the unit is not considered to be SWMU 72. Other than its appearance in the RFA report, there is no institutional knowledge, or other existing evidence, that indicates that an OWS or any other UST was associated with Facility No. 390 prior to the installation of the new unit.

Evaluation of Relevant Information

SWMU 72 is a duplicate of SWMU 71. Therefore no investigation of SWMU 72 has taken place.

Basis of Determination

SWMU 72 is proposed for Corrective Action Complete without Controls because the SWMU is a duplicate of SWMU 71.

7. SWMU 75, Sanitary Sewer Lift Station Overflow Pit

Location

SWMU 75, the Sanitary Sewer Lift Station Overflow Pit, was located in the northwest part of CAFB. The pit was described as 100 feet wide by 600 feet long by three feet deep. It is now encompassed by a lined water hazard at the golf course, although the exact location of the pit is unknown.

History

The pit served as an emergency overflow containment area for a sewer line lift station. The lift station received sanitary waste waters from residential base housing and the former base hospital (now an emergency medical clinic). The emergency pit was used once, in February 1983, when the lift station pumps failed and 100,000 to 150,000 gallons of raw domestic sewage were bypassed to the emergency pit.

Evaluation of Relevant Information

According to 40 CFR §261.4(a)(1)(i), domestic sewage is excluded from materials which are solid wastes. Further, the one-time event of overflow does not qualify the site as a SWMU.

Basis of Determination

SWMU 75 is proposed for Corrective Action Complete without Controls because the site does not qualify as a SWMU.

8. SWMU 79, Underground Storage Tank

Location

An RFA in 1987 describes SWMU 79 UST, as a 2,000-gallon UST located at Fire Department Training Area No. 1 (SWMU No. 78). SWMU 78 covers approximately 0.2 acres in the northeast corner of CAFB, south of the railroad tracks and northeast of Perimeter Road.

History

There is no history for this SWMU 79 because it never existed. SWMU 79 was reportedly co-located with SWMU 78, Fire Department Training Area No. 1. It was estimated that 300 gallons of POL were used during training exercises at SWMU 78.

Evaluation of Relevant Information

There is no record, other than the RFA, of any storage tanks, either underground or aboveground, in the area of SWMU 79. The RFA references the 1983 IRP Records Search (CH2M Hill 1983) for this information. The RFA further states this SWMU may have been removed prior to a site inspection conducted as part of the RFA (A.T. Kearney 1987).

The IRP Records Search does not identify the presence of a UST at this site. The IRP Records Search states that POL was brought onto the site in 55-gallon drums and bowsers (CH2M Hill 1983).

A records search and several personnel interviews have failed to document the existence of this tank. A 2,000-gallon UST was located at Fire Department Training Area No. 4, which is not part of SWMU 78 or SWMU 79.

Basis of Determination

SWMU 79 has been determined to be appropriate for Corrective Action Complete without Controls. The SWMU cannot be located, does not exist, or is a duplicate SWMU.

9. SWMU 81, Solvent Disposal Site

Location

SWMU 81, Solvent Disposal Site, is located approximately 300 feet east of Fire Training Area No. 1 (SWMU 78) and 100 feet south of the northern CAFB boundary fence.

History

SWMU 81 was first identified in a 1983 Records Search as two empty drums labeled “trichloroethylene” were observed lying on the ground. The drums had been positioned in such a way that they would have drained into a shallow pit.

The site could not be located during preparation of a 1987 RFA or during the site visit performed as part of the preparation of a 1990 RFI Work Plan. Air Force personnel were able to identify the location of the site as part of the preparations for an RI completed in 1991.

Evaluation of Relevant Information

The 1992 RI involved drilling and sampling 10 soil borings in the area of the shallow pit. One surface soil sample (0.5 foot bgs) and one subsurface soil sample (four feet bgs) were collected from each of the ten borings. Based on elevated OVA readings in subsurface soil, two additional

soil borings were drilled and samples were collected from five to nine feet bgs in the two borings to evaluate the vertical extent of potential contamination. All samples were analyzed for VOCs. No VOCs were detected at concentrations above residential, industrial or construction worker NM SSLs. None of the VOCs exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 81 is proposed for Corrective Action Complete without Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under a residential land use scenario or to ecological receptors.

10. SWMU 86, Former Engine Test Cell, SWMU 87, Former Overflow Pit, SWMU 88, Former Leach Field, SWMU 89, Evaporation Pond, and SWMU 90, OWS No. 5114

Location

SWMU 86, Former Engine Test Cell is part of SD-11 (IRP Site No. SD-11). SD-11 occupies approximately 1.1 acres located about 5,000 feet east and 2,000 feet south of the intersection of the two main runways at CAFB and consists of five SWMUs: a former engine test cell (SWMU 86), a former overflow pit (SWMU 87), a former leach field (SWMU 88), which was later converted to an evaporation pond (SWMU 89), and OWS No. 5114 (SWMU 90).

SWMU 86 was enclosed with a 100-foot by 20-foot building set on a concrete slab. Both the test cell structure and a small, associated pump house building have been removed, leaving only a bare concrete slab. Asphalt, gravel, and weeds cover most of the area surrounding the former engine test cell. Topography is generally flat, with an approximate elevation of 4,268 feet above mean sea level (msl).

History

SWMU 86 was active from 1965 to 1988. The site received potential contaminants from a single operation, the steam cleaning and testing of jet aircraft engines. Contaminants that may have been released at the site include lubricating and synthetic oils, residual JP-4 fuel, and solvents.

During the life span of the facility, effluent generated in the engine test cell (SWMU 86) was handled in several ways. Initially, effluent was discharged to an overflow pit (SWMU 87). An oil/water separator system (SWMU 90) which discharged to a leach field (SWMU 88) was later installed. Finally, the effluent was routed through an OWS to an evaporation pond (SWMU 89). The evaporation pond was constructed in the area of the former leach field (SWMU 88).

Evaluation of Relevant Information

A Phase I IRP Records Search was completed to identify and evaluate suspected contamination associated with past hazardous material disposal sites and spill sites at CAFB (CH2M Hill 1983).

A Phase II IRP investigation included drilling two boreholes to depths of 35 and 50 feet bgs at the site. Five soil samples were analyzed for purgeable halocarbons and aromatics, oil and grease, and lead. Analytical results indicated no soil contamination at the site (Radian 1986).

A PR/VSI, RFA was conducted at CAFB. The RFA identified the SD-11 sites as possible SWMUs and recommended soil sampling to determine if contaminants had been released from the unit (A.T. Kearney 1987).

An RI included five soil borings in the area of SD-11 that were sampled and soils analyzed for VOCs, xylene, base/neutral organics, and total metals. Analytical results indicated very low levels of 2, 2'-methylene bis (4-ethyl-6-tert) butylphenol (known as antioxidant 425) in two boreholes. Silver was the only metal detected at levels exceeding background (Walk Haydel 1990).

An RI for 18 IRP/SWMU sites at CAFB further evaluated the nature and extent of potential hazardous contaminants at SD-11. Six soil borings were advanced near the engine test pad and the old OWS. All collected soil samples were analyzed for VOCs and TAL metals. No VOCs, except acetone and toluene, were detected above the Contract-Required Quantitation Limits (CRQLs) in surface and subsurface soil samples at the SWMUs. Metals detected at elevated levels were antimony, barium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, vanadium, and zinc (W-C 1992).

The OWS system and surrounding petroleum-contaminated soils were excavated during a removal action in 1994. Reportedly, the OWS was not sealed along the bottom or at the edges, and petroleum contamination was visible after removing approximately one foot of soil. An area measuring approximately 60 feet long by 30 feet wide and up to 25 feet deep was excavated. Soil samples were taken from the excavated soil and analyzed for TPH, VOCs, SVOCs, and TAL metals. Approximately 186 tons of excavated soil was transported to an off-site facility for disposal. The remaining stockpiled soil was mixed with off-site soil to backfill the excavation (RSI 1994).

Following the removal activity, a Phase III RFI was completed at SD-11 to assess the vertical and horizontal extent of contamination and to complete a screening-level risk evaluation. Soil samples were analyzed for VOCs, SVOCs, TRPH, and TAL metals. Moderate to high concentrations of TRPH and some VOCs and SVOCs were detected in soils below the zone of backfill. Bromoform, arsenic, barium, copper, and vanadium were detected in one groundwater sample; all of these chemicals were below their respective published MCLs, or Risk-Based Concentrations (RBCs) for tap water (W-C 1997).

Three soil borings were drilled and sampled to depths of 40 feet bgs at the evaporation pond as part of a CMS investigation. Five soil samples were collected from each boring and analyzed for VOCs, SVOCs, TPH DRO, and TRPH. The CMS included human health and ecological risk assessments, a contaminant fate and transport evaluation, and an evaluation of corrective measures alternatives (URS 1999).

The United States Geological Survey (USGS) completed one boring at the site in June 2000. Four samples were collected from the boring and analyzed for TPH GRO and VOCs. TPH GRO

was present in the deepest sample (collected from 25 feet bgs) at a concentration of 120 mg/kg, so a second boring was completed approximately 25 feet west of the first USGS boring location in February 2001. Five samples were collected from the boring and analyzed for TPH GRO and VOCs; analytical results for all parameters tested in all samples from this boring were either non-detect or below reporting detection limits (USGS 2001).

NMED issued comments on the CMS in July 2005 requiring additional activities to address potential risks to human health and the environment (NMED 2005). In response to these comments, a Corrective Measures Implementation (CMI) investigation and removal was completed in 2007 (URS 2007).

The CMI field investigation included collecting soil samples from nine soil borings for TPH and VOCs, SVOCs, and metals analyses, and evaluating the results by comparing them to NMED's TPH screening guidelines (NMED 2006b) and the current NMED SSLs to identify any additional chemicals of concern. The results of this investigation were used in combination with previous results to further delineate the horizontal and vertical limits of contaminated media requiring removal. TPH results from analysis of samples collected from the borings were compared to NMED's TPH screening guideline of 940 mg/kg for kerosene and jet fuel under residential direct exposure scenarios (NMED 2006). Sample results indicated that detected TPH levels were below the 940 mg/kg screening criteria. Additionally, VOCs, SVOCs, and metal concentrations results were compared to current (2012) NMED SSLs, and were all below NMED SSLs. Metals concentrations were also compared to background levels. Barium, beryllium, and potassium concentrations exceeded background levels, but were below NMED SSLs.

The corrective measures implementation included excavating TPH-contaminated media greater than or equal to 940 mg/kg to the limits delineated using the CMI field investigation results, transporting the excavated materials off site for disposal, and backfilling and restoring the site to pre-existing grades. Three soil borings were drilled and sampled to depths of 40 feet bgs at the evaporation pond as part of a Corrective Measures Study (CMS) investigation. Five soil samples were collected from each boring and analyzed for VOCs, SVOCs, TPH – DRO, and TRPH. The CMS included human health and ecological risk assessments, a contaminant fate and transport evaluation, and an evaluation of corrective measures alternatives (URS 1999).

In response to the work completed as part of the CMI, a letter dated March 12, 2008 from NMED (NMED 2008) stated that the CMI Report was accepted, and that the Permittee (CAFB) may petition for a "Corrective Action Complete Without Controls" for SWMUs 86 through 90.

Basis of Determination

SWMU 86 through SWMU 90 are proposed for Corrective Action Complete without Controls. The SWMUs have been characterized or remediated in accordance with current applicable state and/or federal regulations, and the available data indicated that contaminants pose an acceptable level of risk to human health and the environment under a residential land use scenario.

11. SWMU 98, Sanitary Sewer Line

Location

SWMU 98, a sanitary sewer line, is present throughout CAFB. The sanitary sewer system's main trunk line flows northeast along Torch Boulevard in the aircraft maintenance area. A smaller branch flows south along Torch Boulevard near the main entrance to CAFB. A secondary line flows southeast and enters the main trunk at Argentia Avenue, and a transmission line flows east across the runways to the wastewater lagoon.

History

The sanitary sewer system at CAFB was constructed in 1943 and has undergone expansion and upgrades in subsequent years. The sewer lines are located underground and are used to transport sanitary wastewater to the wastewater treatment plant. The sewer lines are constructed of 8-inch diameter PVC in the housing area of the Base, and of 15-inch diameter clay tile in the main Base area. Typically, the lines are buried five to 17 feet bgs. The system has an approximate flow-rate of 0.4 million gallons per day. No indication of significant sewage loss from the sewer lines has been observed.

Only the main trunk, the south flowing branch, and the east flowing transmission line potentially received hazardous waste. All other lines, including the secondary branch lines, receive only domestic sewage.

Evaluation of Relevant Information

An RI conducted in 1992 consisted of a video camera survey of over 8,900 feet of sanitary sewer line, advancement of 42 soil borings, and collection of 44 subsurface soil samples to identify locations where the sewer line may have leaked. Soil samples were analyzed for TPH, VOCs, and metals. Low concentrations of TPH and VOCs (acetone, 2-butanone, methylene chloride, and toluene) and twenty-one TAL metals were detected. Concentrations of several TAL metals slightly exceeded CAFB subsurface background concentrations. However, the only metals concentrations that were identified as statistically greater than background based on mean comparison tests were barium, calcium, and magnesium. None of the contaminants exceeded residential, industrial or construction worker NM SSLs or site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 98 is proposed for Corrective Action Complete without Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under a residential land use scenario or to ecological receptors.

12. SWMU 106, Fire Department Training Area No. 2 (IRP Site FT-07)

Location

SWMU 106, the Fire Department Training Area No. 2 is located in the southeast corner of CAFB near the abandoned north-south taxiway T-5.

History

The site consisted of two round depressions in the land surface, each sparsely vegetated and measuring approximately 100 feet in diameter. From 1968 to 1974, SWMU 106 was used concurrently with SWMU 107, Fire Department Training Area No. 3. During training exercises, the ground was saturated with water and JP-4 jet fuel was introduced and ignited. Approximately 300 gallons of fuel were burned during each training exercise. The exercises occurred approximately eight times per year.

Evaluation of Relevant Information

An IRP Phase II – Confirmation/Quantification Stage I investigation was completed for this site in 1986. One deep soil boring was drilled at the lowest point of the area to define subsurface conditions in samples collected at approximately one, five, and 57 feet bgs. Samples were analyzed for oil, grease, TPH, lead, and VOCs. Oil and grease and lead were detected in all samples.

An RI and BRA were conducted in 1992 to further evaluate the SWMU. During the RI, four soil borings, two in each depression, were drilled to depths between 31 and 32 feet bgs. One surface (0-0.5 feet bgs) and four subsurface soil samples (at four, 10, 20 and 30 feet bgs) were collected and analyzed from each soil boring.. The surface soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX), TPH, lead, and chromium. Subsurface samples were analyzed for VOCs, TPH, lead, and chromium.

BTEX were detected in surface soil samples at low concentrations. TPH was detected in surface soil samples. No petroleum or BTEX compounds were present in subsurface soils.

A BRA (SWMU 106 combined with SWMUs 107, 109, and 113) evaluated benzene, toluene, xylenes, trichloroethylene, ethylbenzene, chromium and lead as COPCs and indicated that there were no unacceptable adverse effects due to non-carcinogenic chemicals. The risks due to carcinogenic chemicals were within the acceptable risk range with the exception of benzene at SWMU 106 where it was detected in only one of 23 samples. However, the exposure point concentration (EPC) for benzene was based on detection limit values in samples that were reported as non-detects resulting in an overestimation of the calculated risk.

Maximum concentrations of chromium and lead slightly exceeded background levels, but did not exceed current NM residential SSLs. None of the contaminant concentrations exceeded site-specific soil to groundwater screening levels.

Basis of Determination

SWMU 106 is proposed for Corrective Action Complete without Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Risk screening evaluation indicates that the contaminants present do not pose an unacceptable level of risk to human health under a residential land use scenario or to ecological receptors.

13. SWMU 110 Underground Waste Oil Tank No. 2336 at FTA No. 4

Location

SWMU 110, Underground Waste Oil Tank No. 2336, is located at the FTA No. 4. FTA No. 4 is near the southeast corner of CAFB, approximately 2,000 feet southeast of the end of Runway 31. During previous investigations SWMUs 109, 110, 111 and 112 were grouped together as the FTA No. 4. Samples collected are not necessarily specific to a single SWMU; however, for the sake of clarity, activities have been organized by SWMU number in this document.

History

SWMU 110 is part of FTA No. 4, which consists of four separate SWMUs (109, 110, 111, and 112). In 1974, the FTA No. 4 was activated as a FTA. The underground waste oil tank was a 2,000-gallon storage tank that was installed in 1975. Although it is referred to as a waste-oil tank, the only official documentation of its use found during the historical records search states that the tank was used to store JP-4 fuel for use during fire training exercises (Foster Wheeler, 2001). The tank was removed in March 1989. During tank removal, approximately 204 cubic yards of soil was removed from the area around the tank. After 1995, the area was no longer used for fire training exercises.

Evaluation of Relevant Information

In 1985, Radian performed additional sampling that focused on SWMU 109. The results of this investigation are included in the summary because SWMU 109 is proximal to SWMU 110 (within approximately 100 feet). Radian completed two deep soil borings as part of an RI (Radian, 1985); one approximately 50 feet northeast of the training pit, SWMU 109, and one roughly 100 feet southeast of SWMU 109. Two boreholes were installed and five soil samples were collected from the borings. Samples were analyzed for oil, grease, purgeable halocarbons, purgeable aromatics, and lead; however, samples were not analyzed for TPH. Oil and grease were detected at both boreholes in three samples, and lead was detected in all samples obtained from each borehole. In the eastern borehole, the presence of oil and grease was indicated and lead was detected at a depth of 10.5 to 11.5 feet bgs. Results from the southern borehole indicate oil and grease at a depth of 43 to 45 feet bgs. Purgeable halocarbons and aromatics were not detected.

The underground fuel tank was suspected of leaking at an unknown time. Additional investigation sampling was completed in 1988 by Walk-Haydel to characterize the underground tank area and the runoff area (SWMUs 111 and 112). It was estimated that approximately 1,000 gallons of JP-4 had leaked from the tank. They completed nine borings in the area of SWMUs

110, 111, and 112. Five boreholes were installed at a distance of approximately 70 feet from SWMU 110. Boreholes ranged in depth from five to 100 feet, and samples were collected every two feet to a depth of 11 feet, then every five feet to a depth of 31.5 feet when samples were collected every 10 feet to total borehole depth. Samples were analyzed for VOCs and metals; however samples were not analyzed for TPH. Three of the borehole locations are located within approximately 70 feet from the underground tank (SWMU 110); results indicate JP-4 constituents of benzene, toluene, ethylbenzene, and total xylenes were detected in the soil samples. Contaminant concentrations were reported to a depth of 100 feet. None of the VOC concentrations exceed current NMED residential SSLs for samples collected near SWMU 110. Four metals (arsenic, barium, cadmium and silver) were detected in the soil samples. (Foster Wheeler, 2001). All arsenic concentrations exceed the current NMED residential SSL. The maximum arsenic concentration detected near SWMU 110 was 96.6 mg/kg at a depth of 15 to 16.5 feet bgs. No other metals exceeded current NMED SSLs for samples collected near SWMU 110

The waste oil tank was removed in 1989, and at the time of removal, the tank, along with excavated soil, was placed on heavy-gauge plastic on a plot adjacent to the abandoned runway for land farming. Records indicate that no samples were collected from the area of the removed tank, either prior to or after excavation/removal. In September 2000, Foster Wheeler conducted sampling of the excavated soil that was placed at the land farm to assess the remaining levels of contamination in the land farmed soil. The results of this investigation provide information on the TPH concentrations in soil prior to tank excavation in 1989. Five soil samples were collected in the deeper areas of the land farm (one to one and one-half feet) and were analyzed for TPH. A sample also was taken at the northwest corner of the land farm. The maximum concentration detected was above the current NMED residential SSL for jet fuel. TPH results for the five confirmation soil samples were compared with current NMED residential SSLs for jet fuel.

Woodward-Clyde (1991) performed additional sampling near SWMU 109; none of the collected samples were within 100 feet of SWMU 110. Near SWMU 109, samples collected included four surface soil samples as well as four resample soil borings as part of the RI (Woodward-Clyde, 1991). Only one sample was collected at the center of SWMU 110, where the underground waste oil tank was located. A total of five samples were collected during drilling. No VOCs, SVOCs, or cyanide were detected in soil samples collected from this borehole. Seventeen metals were detected and no concentrations exceeded current NMED residential SSLs.

A CMS was completed for the FTA No. 4 in 2001. Based on the site characteristics and low concentrations of contaminant sources, the recommendation for SWMU 110 was no further action (Foster Wheeler, 2001).

Basis of Determination

SWMU 110 is proposed for Corrective Action Complete without Controls. The underground waste oil tank and excavated soil at SWMU 110 has been removed, and no soil samples had contaminants detected at concentrations greater than NMED residential SSLs.

14. SWMU 124, Inactive Underground Storage Tank No. 1, (ST-30)

Location

SWMU 124, (IRP Site No. ST-30) was suspected of being located in the area of Facility 4028 at Cannon AFB. However, it is believed that SWMU 124 is a duplicate of SWMU 48A.

History

Site inspections, record searches, and interviews with facility personnel failed to reveal the existence of a UST, other than an UST associated with SWMU 48A, in this area. It was determined that SWMU 124 must be a duplicate of SWMU 48A.

SWMU 48A included a 20,000-gallon UST located approximately 125 feet east of the intersection of Argentia Avenue and Torch Boulevard. The tank and associated piping were removed in 1988. The area is presently paved and used as a parking lot. The depth of the former tank is unknown, but residual contaminants have been detected at depths up to 30 feet bgs. Topography is generally flat with an approximate elevation of 4,300 feet above msl.

The UST was active from 1941 to 1985. Historically, the site was a gas station from 1941 to 1965. From 1965 to 1985 the tank was used to store waste products. The tank reportedly received waste oils, spent solvents, paint thinners, and recovered fuels. The products were removed periodically from the tank. The quantities of each of the waste products stored in the tank are unknown.

Evaluation of Relevant Information

SWMU 124 is a duplicate of SWMU 48A. Past investigations have taken place at SWMU 48A, and remedial activities continue to take place at this site. The CMI was scheduled for SWMU 48A in 2008.

Basis of Determination – SWMU 124

SWMU 124 has been determined to be appropriate for Corrective Action Complete without Controls. The SWMU cannot be located, does not exist, or is a duplicate SWMU.

15. SWMU 125, Inactive Underground Storage Tank No. 2 (IRP Site ST-31)

Location

SWMU 125, Inactive Underground Storage Tank No. 2 was located adjacent to Building 357, in the north central part of CAFB.

History

An RFA, reported in 1987, described the suspected SWMU as a UST of unknown dimensions, construction, and capacity. Visual inspections and record searches failed to reveal the existence

of the unit. Interviews with Base personnel indicated that a UST had been removed prior to the implementation of NMED UST regulations, but real property records indicated that the tank had been abandoned in place.

In February 1996, during the demolition of the former Civil Engineering Compound (including Building 357 and the adjacent parking area), two 500-gallon USTs were discovered and removed. The tanks were reportedly empty with no signs of leakage and had no associated piping.

Evaluation of Relevant Information

After removal of the USTs in 1996, soil samples were collected from the corners of each excavation (eight samples total) and analyzed for TPH. The analytical results of all eight samples were non-detect.

Basis of Determination

SWMU 125 has been determined to be appropriate for Corrective Action Complete without Controls. The SWMU has been characterized in accordance with current applicable state and/or federal regulations. Contaminants were not present, and therefore do not pose an unacceptable level of risk to human health or ecological receptors under a residential land use scenario.

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