

relevant adverse comments to this action. A detailed rationale for the approval is set forth in the direct final rule. If no relevant adverse comments are received in response to this action, no further activity is contemplated in relation to this action. If EPA receives relevant adverse comments, the direct final rule will be withdrawn and all public comments received will be addressed in a subsequent final rule based on this proposed action. EPA will not institute a second comment period on this action. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on part of this rule and if that part can be severed from the remainder of the rule, EPA may adopt as final those parts of the rule that are not the subject of an adverse comment. For additional information, see the direct final rule which is located in the rules section of this **Federal Register**.

Dated: July 22, 2007.

**John B. Askew,**

*Regional Administrator, Region 7.*

[FR Doc. E7-14869 Filed 7-31-07; 8:45 am]

BILLING CODE 6560-50-P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 300

[FRL-8447-3]

#### National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List; Partial Deletion of Sites From the Otis Air National Guard Base/Camp Edwards Superfund Site

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of intent.

**SUMMARY:** EPA is announcing its intent to partially delete 61 source area sites on the Otis Air National Guard Base/Camp Edwards Superfund Site from the National Priorities List (NPL) and requests public comment on this action. A source area site is defined by: soil; structures, if present; and does not include any contaminated groundwater plume that may be below the site. Otis Air National Guard Base/Camp Edwards is a Federal Facility Superfund Site known locally as the Massachusetts Military Reservation (MMR), so this notice will use MMR as the abbreviation to describe the entire Superfund Site. The United States Air Force is the lead agency at the MMR Superfund Site.

EPA bases its proposal to partially delete the 61 source area sites from the

MMR Superfund Site on the determination of EPA and the Commonwealth of Massachusetts, through the Massachusetts Department of Environmental Protection (MassDEP), that all appropriate response actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) have been implemented to protect human health, welfare, and the environment and that no further response actions by responsible parties, at these 61 sites, are appropriate. Based on all investigations completed to date, there are 80 source area sites at MMR. Upon conclusion of this process, there would be 19 source area sites remaining. This partial deletion pertains to only the surface area of sites investigated (and in some cases cleaned-up) for soil contamination, and does not pertain to any of the 12 groundwater plumes associated with MMR Superfund Site. All other sites (including all contaminated groundwater plumes on the Site) not included in this notice will remain on the NPL. In the northern half of the MMR, there are source area sites and groundwater plumes associated with an investigation and cleanup program known as the Impact Area Groundwater Study Program which is being conducted under the authority of Safe Drinking Water Act Administrative Orders. These sites and groundwater plumes are not the subject of this partial deletion proposal.

The NPL, promulgated pursuant to section 105 of CERCLA, as amended, is Appendix B of 40 CFR part 300, which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This partial deletion of the Otis Air National Guard Base/Camp Edwards Superfund Site is proposed in accordance with 40 CFR 300.425(e) and the Notice of Policy Change: Partial Deletion of Sites Listed on the National Priorities List (60 FR 55466). This action is being proposed by EPA with the concurrence of the Commonwealth of Massachusetts, through the MassDEP, because EPA has determined that all appropriate response actions under CERCLA have been completed and, therefore, further remedial action pursuant to CERCLA is not appropriate.

**DATES:** Comments concerning this proposed partial deletion may be submitted on or before August 31, 2007.

**ADDRESSES:** Submit your comments identified by Docket ID No. EPA-HQ-SFUN-1989-0007, by one of the following methods:

- <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- *E-mail:* [lim.robert@epa.gov](mailto:lim.robert@epa.gov).

- *Fax:* 617-918-0392.

- *Mail:* Bob Lim, Remedial Project Manager, U.S. EPA, New England Region, One Congress Street, Suite 1100 (HBT), Boston, MA 02114.

- *Hand Delivery:* Records Center, One Congress Street, Suite 1100, Boston, MA 02114. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

**Instructions:** Direct your comments to Docket ID No. EPA-HQ-SFUND-1989-0007. EPA's policy is that all comments received will be included in the public docket without change and may be available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through <http://www.regulations.gov>, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

**Docket:** All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available only in hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at

the EPA's New England Region Superfund Records Center, One Congress Street, Suite 1100, Boston, MA 02114 and the Information Repositories at AFCEE/IRP Office at Building 322 on MMR, by appointment only Monday through Friday 8 am to 5 pm, (508) 968-4670 ext 1, and the Information Repositories in the Towns of Bourne, Falmouth, Sandwich, and Mashpee.

**FOR FURTHER INFORMATION CONTACT:** Bob Lim, Remedial Project Manager, U.S. Environmental Protection Agency, One Congress Street, Suite 1100 (HBT), Boston, Massachusetts 02114-2023, (617) 918-1392, Fax (617) 918-1291, e-mail: [lim.robert@epa.gov](mailto:lim.robert@epa.gov).

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#### I. Introduction

EPA is announcing its intent to partially delete 61 source area sites on the Otis Air National Guard Base/Camp Edwards Superfund Site from the National Priorities List (NPL) and requests public comment on this action. A source area site is defined by: Soil; structures, if present; and does not include any contaminated groundwater plume that may be below the site. Otis Air National Guard Base/Camp Edwards is a Federal Facility Superfund Site known locally as the Massachusetts Military Reservation (MMR), so this notice will use MMR as the abbreviation to describe the entire Superfund Site. Furthermore to avoid confusion, this notice will use a lowercase "s" when referring to the individual source area sites and an uppercase "S" for the entire Superfund Site. The United States Air Force through the Air Force Center for Engineering and Environment (AFCEE) is the lead agency at the MMR Superfund Site.

The NPL was promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act. EPA identifies sites that appear to present a significant risk to public health or the environment and maintains the NPL as the list of those sites. This partial deletion of the 61 sites on the MMR Superfund Site is proposed in accordance with 40 CFR 300.425(e) and Notice of Policy Change: Partial

Deletion of Sites Listed on the National Priorities List (60 FR 55466 (Nov. 1, 1995)). EPA will accept comments on the proposal to delete the 61 sites for thirty (30) days after publication of this document in the **Federal Register**.

EPA and the Massachusetts Department of Environmental Protection (MassDEP) have determined that remedial action on site soil and, if present, structures at these clearly defined 61 sites have been successfully completed. The remaining sites of the MMR Superfund Site will remain on the NPL (all groundwater, surface water and soil not contained in these 61 portions (see Table 1)) for remedial investigation, remedial action, and continued monitoring. MMR occupies over 22,000 acres of land in portions of the Towns of Bourne, Falmouth, Mashpee, and Sandwich. MMR was listed on the National Priorities List in 1989 (CERCLIS ID—MA2570024487).

A two-party Federal Facility Agreement which was signed in 1991, and as subsequently amended, requires the Air Force to take the lead on cleanup activities for Installation Restoration Program sites at MMR.

The military's Installation Restoration Program (IRP) was established in 1982 leading to numerous soil and groundwater investigations and cleanups in the southern, developed southern half of the base. In addition, the military has extended public water supply lines into neighborhoods where plumes have affected groundwater underneath homes which had relied on private wells. To date, investigations have identified 80 source area sites and 12 groundwater plumes. Figures and tables supporting this notice are found in separate appendices in the Deletion Docket. Figure 1 shows all IRP source area sites and IRP plumes. For more information on the site history and current news at MMR, visit the program's Web site (<http://www.mmr.org>).

This partial deletion proposal pertains to the soil and, if present, structures at 61 sites ranging in size from half an acre to 80.7 acres. The total proposed area is 482.1 acres. Acreage and coordinates for each individual site are presented in each site summary. In addition, the Deletion Docket contains a file with a table of all sites with the area and coordinates of each site. Table 1 identifies structures as being present with an asterisk next to the site name and noted in those site summaries. Based on all investigations completed to date, there are 80 source area sites at MMR. Upon conclusion of this process, there would be 19 source area sites remaining. Even though some of the

sites appear to be above contaminated groundwater plumes, this partial deletion does not include any plumes of contaminated groundwater because data shows that the sites are not related to the plumes.

Figure 1 identifies the 12 plumes of contaminated groundwater associated with MMR Superfund cleanup. They are: Ashumet Valley, Chemical Spill-4 (CS-4); CS-10; CS-19; CS-20; CS-21; CS-23; Fuel Spill-1 (FS-1); FS-12; FS-28; FS-29; and Landfill-1. Primary contaminants of concern in these plumes include solvents (*i.e.*, trichloroethylene, tetrachloroethylene), fuel components (*i.e.*, ethylene dibromide), and an explosive compound (*i.e.*, 1,3,5-hexahydro-1,3,5-trinitrotoluene (RDX)), in the CS-19 plume. There are currently eleven groundwater pump and treat cleanup remedies for which cleanup on some plumes is expected to continue for over 25 years. AFCEE currently operates groundwater cleanup systems for 11 groundwater plumes and treats over 18 million gallons per day. From 1997 to March 2007, over 32 billion gallons of contaminated groundwater have been extracted and treated.

In the northern half of MMR, there is a separate, ongoing investigation and cleanup program known as the Impact Area Groundwater Study Program (IAGWSP). These sites and groundwater plumes are not the subject of this Notice of Intent for Partial Deletion. The authority for this program is based upon EPA's Safe Drinking Water Act (SDWA) Program. In February 1997, EPA's New England regional office (EPA New England) issued SDWA Administrative Order 1-97-1019 (AO1) requiring investigation of contamination at or emanating from the Training Ranges and Impact Area upon the sole source aquifer that underlies MMR and surrounding communities. In May 1997, EPA New England issued SDWA Administrative Order 1-97-1030 (AO2), which prohibited all live firing of mortars and artillery, firing of lead from small arms, planned detonation of ordnance or explosives at or near the Training Ranges and Impact Area except for UXO activities, and certain other training related activities. In January 2000, EPA New England issued SDWA Administrative Order 1-2000-0014 (AO3), which required the IAGWSP to implement Rapid Response Actions (RRAs) and remedial actions to "abate the threat to public health presented by the contamination from past and present activities and sources at and emanating from the Training Ranges and Impact Area." The Department of the Army is undertaking the investigation and

cleanup under the Administrative Orders. EPA has issued a total of four Administrative Orders for investigation and cleanup, and prohibition of all live fire of munitions, propellants and pyrotechnics, demolition training, firing of lead from small arms, planned detonation of ordnance, or explosives except for UXO activities and certain other training related activities. Figure 1 shows a number of plumes which have been identified in the IAGWSP investigations. The primary contaminants of concern in these plumes are 1,3,5-hexahydro-1,3,5-trinitrotoluene (RDX) and perchlorate, which are mapped to their non-detect boundary (*i.e.*, 0.35 parts per billion for perchlorate and 0.25 parts per billion for RDX). The MassDEP has promulgated a 2.0 part per billion groundwater cleanup standard for perchlorate. There is no promulgated groundwater standard for RDX, but its Health Advisory is 2.0 parts per billion and its risk-based action level for a one-in-million excess cancer risk probability is 0.6 parts per billion.

Shown on Figure 1, the IAGWSP plumes of contaminated groundwater are: Central Impact Area (CIA); Demolition Area 1 (Demo 1); Demo 2; J-1 North; J-2 North; J-2 East; J-3; L-Range; and Northwest Corner. IAGWSP source area sites are not shown on Figure 1. In 2004 and 2005, short-term response actions were undertaken to address both soil and groundwater contamination. Currently, there are temporary groundwater cleanup systems for Demo 1, J-2 North and J-3 South plumes. For more information on this program, visit the program's Web site (<http://groundwaterprogram.army.mil>).

The EPA identifies sites that appear to present a significant risk to public health or the environment and maintains the NPL as the list of those sites. As described in § 300.425(e)(3) of the NCP, sites deleted from the NPL remain eligible for remedial actions if conditions at a deleted site warrant such action.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses the procedures EPA is using for this action. Section IV discusses sites in detail, the soil portion of each of the 61 sites, and explains how each site meets the deletion criteria.

## II. NPL Deletion Criteria

The National Contingency Plan (NCP) establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate to protect public health or the environment. In making

such a determination pursuant to § 300.425(e), EPA will consider, in consultation with the State, whether the following criteria have been met:

- 300.425(e)(1)(i). Responsible parties or other persons have implemented all appropriate response actions required; or
- § 300.425(e)(1)(ii). All appropriate Fund-financed response under CERCLA has been implemented; or
- § 300.425(e)(1)(iii). The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, taking of remedial measures is not appropriate.

Deletion of a portion of a site from the NPL does not preclude eligibility for subsequent Fund-financed actions at the area deleted if future site conditions warrant such actions. § 300.425(e)(3) of the NCP provides that Fund-financed actions may be taken at sites that have been deleted from the NPL.

A partial deletion of a site from the NPL does not affect or impede EPA's ability to conduct CERCLA response activities at area not deleted and remaining on the NPL. In addition, deletion of a portion of a site from the NPL does not affect the liability of responsible parties or impede agency efforts to recover costs associated with response efforts.

In the case of MMR, the selected remedies are protective of human health and the environment. Two five-year reviews have been conducted at MMR. Copies are located at the repository previously noted. For sites with remedies or final decisions, the remedies were deemed protective, and no information existed to warrant any changes to protectiveness statements for other sites.

## III. Deletion Procedures

Deletion of the 61 sites on the MMR Superfund Site from the NPL does not itself create, alter, or revoke any person's rights or obligations. Deletion of the site from the NPL does not preclude eligibility for future response actions, NCP § 300.425(e)(3). The following procedures were used for the proposed deletion of the following study areas from the MMR Superfund Site:

- EPA has recommended the partial deletion and has prepared the relevant documents.
- EPA has consulted with the Commonwealth of Massachusetts on the partial deletion of the sites from the NPL.
- The Commonwealth of Massachusetts concurred with the

partial deletion of the sites from the NPL.

- Concurrent with this national Notice of Intent for Partial Deletion, a public notice will also appear in a local newspaper. Additionally, notice has been distributed to appropriate Federal, State, local officials, and other interested parties. These notices announce a thirty (30) day public comment period on the deletion package, which commences on the date of the publication of this document in the **Federal Register** and a newspaper of record.

- All relevant documents have been compiled in the site deletion docket and are available at the information repositories listed previously.

Upon completion of the thirty (30) day public comment period for the deletion of the 61 sites on the MMR Superfund Site, EPA's New England regional office will accept and evaluate all public comments received before making a final decision to delete. If necessary, the Agency will prepare a Responsiveness Summary to address any significant public comments received. The Responsiveness Summary will be made available to the public at the information repositories listed previously (or in the site docket at <http://www.regulations.gov>). If, after review of all public comments, EPA determines that the partial deletion from the NPL is appropriate, EPA will publish a final Notice of Partial Deletion in the **Federal Register**. Deletion of the 61 sites does not actually occur until the final Notice of Partial Deletion is published in the **Federal Register**.

## IV. Basis for Intent for Partial Site Deletion

### A. Site Histories for Partial Deletion Sites

The following information presents EPA's rationale for deleting the sites from the MMR Superfund Site. To aid in the understanding of the 61 sites that are the subject of this action, the site history narratives are organized into two groups, Sections A.1 and A.2. A summary of the site names are found in Table 1 which is found in a tables appendix in the Deletion Docket. Section A.1 contains site narratives where no cleanup action was taken because the investigation found the site conditions to be protective of both human and the environment. Section A.2 contains sites where actions (CERCLA and non-CERCLA actions) have been completed.

## 1. Investigation Findings for No Action Sites

The sites in this section have been investigated, but were found to have no contamination and no CERCLA or non-CERCLA actions have been taken. Sites with structures that are part of the partial deletion are noted in the each narrative, if present, and are identified in Table 2 with an asterisk. Table 2 can be found in the tables appendix in the Deletion Docket. Figures that are referenced in this section can be found in a figures appendix in the Deletion Document.

The no action decisions for these 17 sites have been documented in decision documents called No Further Action Decision Documents. These documents are jointly signed by representatives from EPA, the Air Force and the Commonwealth of Massachusetts, and provide investigation summaries and the conclusion of no action. At MMR and other Federal Facility Superfund Sites, no action for sites, which have only been investigated at the preliminary assessment/site inspection (PA/SI) level of effort and found to require no action, are typically documented via a No Further Action Decision Document rather than Record of Decision.

### Chemical Spill-5 (U.S. Coast Guard) (CS-5 (CG))

#### Site Location and History

CS-5 (CG), U.S. Coast Guard Carpentry Shop, is located in the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (MA State Plane NAD27 feet) are: 856392, 242413; 856587, 242280; 856502, 242170; 856307, 242305; and 856392, 242413. The area CS-5 (CG) proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-5 (CG) is a less than one-acre area which featured a carpentry shop which operated from 1973 to the mid-1990s and housed paint wastes such as turpentine, thinner, and excess paint.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

## Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at CS-5 (CG) and no institutional controls are present.

### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

### Chemical Spill-7 (CS-7)

#### Site Location and History

CS-7, Operational Motor Pool (Organizational Maintenance Shops-6), is located in the Cantonment Area of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 863203, 241519; 863318, 241471; 863243, 241297; 863129, 241345; and 863203, 241519. The area CS-7 proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-7 is half-acre area which featured a vehicle maintenance shop which was operated by the Air National Guard from 1966 to 1976. Wastes were accumulated and eventually transported for off-site disposal, but any spills would have flowed into the stormwater drainage system. Currently, Massachusetts Army National Guard vehicles are maintained at this location.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances. Current hazardous waste management practices were reviewed and found to be adequate in preventing spills and releases to the environment.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in August 1990. No risks are present at CS-7 and no institutional controls are present.

### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

### Chemical Spill-7 (U.S. Coast Guard) (CS-7 (CG))

#### Site Location and History

CS-7 (CG), U.S. Coast Guard Dry Cleaning Facility, is located in the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Northing and Easting coordinates (NAD27) are: 859050, 239116; 859086, 239098; 859043, 239010; 859006, 239028; and 859050, 239116. The area CS-7 (CG) proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-7 (CG) is a one tenth of an acre area which featured a dry-cleaning facility which operated from the mid-1960s to 1975 using a TCE-containing dry-cleaning compound. The dry-cleaning machines were reported to have periodically leaked fluid on the floor which had floor drains that were connected to the base sanitary sewer system.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances onto site soil because any leaked or spilled dry-cleaning fluids would have flowed into the building's floor drains which are connected to the base sanitary sewer system.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at CS-7 (CG) and no institutional controls are present.

### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

**Chemical Spill-12 (CS-12)****Site Location and History**

CS-12, Veterans Administration Roads and Grounds Shop, is located in the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 851979, 246666; 852048, 246851; 852328, 246750; 852260, 246566; and 851979, 246666. The area CS-12 proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-12 is a one-acre area which featured a maintenance shop for the Veterans Administration which has operated since 1980. All generated wastes are disposed at an off-site location, but any spills would have flowed into floor drains which include an oil/water separator and leaching pit.

No significant spills of waste petroleum, oil or lubricants; solvents; herbicides; or pesticides are known to have occurred.

**Investigation and Feasibility Study Activities**

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances. Investigation indicated no contamination requiring action. Current hazardous waste management practices were reviewed and found to be adequate in preventing spills and releases to the environment.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

**Characterization of Risk and Decision Document Findings**

A No Further Action Decision Document was finalized in July 1991. No risks are present at CS-12 and no institutional controls are present.

**Response Actions and Cleanup Standards**

No response actions have been taken and no cleanup standards have been set.

**Operation and Maintenance & Five-Year Review**

No operation and maintenance or Five-Year Reviews are required for this site.

**Coal Yard-1 (CY-1)****Site Location and History**

CY-1 is located in the western half of the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 855517, 240898; 856096,

240798; 856109, 240882; 856835, 240781; 856662, 240092; 856946, 240284; 855839, 239812; 855260, 239978; and 855517, 240898. The area CY-1 proposed for partial deletion includes all structures and surface soils within these coordinates.

CY-1 is a 24.5-acre former U.S. Army coal storage area which operated from 1940 to 1957. Coal was unloaded and stockpiled on the ground surface prior to transport to individual power plants.

**Investigation and Feasibility Study Activities**

Since CY-1 had a similar operational history to CY-2 and CY-4, findings from CY-2 and CY-4 investigations were used to guide the CY-1 investigation. Investigations at CY-2 and CY-4 included: soil borings and monitoring well installation; surface and subsurface soil samples; and ash samples. Results from these investigations demonstrated that coal storages did not cause soil or groundwater contamination. Of the few detected analytes, all were below action levels.

The distribution of PAHs at CY-2 suggests that significant leaching of PAHs from coal storage activities has not occurred. Groundwater data from CY-2 also confirms that PAHs are not migrating to groundwater. A groundwater monitoring well at CY-1 was installed in 1998 and found not to contact any site-related contaminants. Additional surface soil sampling was conducted at CY-1 in June 2001. Samples were analyzed for specific metals (i.e., arsenic, chromium, lead, vanadium, and zinc). All results were below action levels.

Based on the findings at CY-2 and CY-4, and of additional investigations at CY-1 and CY-3, no further action was recommended at CY-1. No feasibility study was conducted since the investigations concluded that there were no risks to human health and the environment.

**Characterization of Risk and Decision Document Findings**

A No Further Action Decision Document was finalized in January 2003. No risks requiring action are present at CY-1, and no institutional controls are present.

**Response Actions and Cleanup Standards**

No response actions have been taken and no cleanup standards have been set.

**Operation and Maintenance & Five-Year Review**

No operation and maintenance or Five-Year Reviews are required for this site.

**Coal Yard-3 (CY-3)****Site Location and History**

CY-3 is located in the western half of the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Northing and Easting coordinates (NAD27) are: 854442, 243657; 855106, 243623; 854977, 243197; 854604, 243197; 854602, 243379; 854454, 243431; and 854442, 243657. The area CY-3 proposed for partial deletion includes all surface soils within these coordinates.

CY-3 is a five-acre area which was located at the former VA hospital steam plant which operated from 1945 to 1972. Coal was stored on an unbermed, paved pad before transfer to hopper bins. Coal ash was temporarily stored in a pit before being taken to the on-base landfill. All stockpiled coal and ash have been removed.

**Investigation and Feasibility Study Activities**

Since CY-3 had a similar operational history to CY-2 and CY-4, findings from CY-2 and CY-4 investigations were used to guide the CY-3 investigation. Investigations at CY-2 and CY-4 included: soil borings and monitoring well installation; surface and subsurface soil samples; and ash samples. Results from these investigations demonstrated that coal storages did not cause soil or groundwater contamination. Of the few detected analytes, all were below action levels.

The distribution of PAHs at CY-2 suggests that significant leaching of PAHs from coal storage activities has not occurred. Groundwater data from CY-2 also confirms that PAHs are not migrating to groundwater. A groundwater monitoring well at CY-1 was installed in 1998 and found not to contact any site-related contaminants. Additional surface soil sampling was conducted at CY-3 in June 2001. Samples were analyzed for specific metals (i.e., arsenic, chromium, lead, vanadium, and zinc). All results were below action levels.

Based on the findings at CY-2 and CY-4, and of additional investigations at CY-1 and CY-3, no further action was recommended at CY-3. No feasibility study was conducted since the investigations concluded that there were no risks to human health and the environment.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in January 2003. No risks requiring action are present at CY-3, and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-2 (U.S. Coast Guard) (FS-2 (CG))

##### Site Location and History

FS-2 (CG) is located in the western half of the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 856255, 237383; 857124, 237257; 857125, 236889; 856250, 237016, and 856255, 237383. The area FS-2 (CG) proposed for partial deletion includes all surface soils within these coordinates.

FS-2 (CG) is a four-acre area which was a former location of a hot-mix asphalt plant which operated between 1941 and 1943. It was reported that asphalt transportation trucks were washed with kerosene or diesel fuel at an unknown location within the area.

#### Investigation and Feasibility Study Activities

A preliminary assessment in 1986 identified FS-2 (CG) as a potential area of past uncontrolled releases of hazardous substances. During field investigations between October 1990 and January 1991, and in 1993, test pits were excavated and surface soil and subsurface soil samples were collected and analyzed to evaluate site conditions. A downgradient monitoring well was also installed and sampled. In 1995, additional soil samples (surface and subsurface) were collected using a hand-auger and analyzed.

Soil data and field observations confirmed the presence of the past asphalt-batching plant and construction debris. Semivolatile compounds (i.e., those typically found in asphalt) were detected. Inorganics were sporadically detected above background concentrations. Compounds observed in soil were not observed in groundwater which is further indication of no source areas at the site. Human health and ecological risk was evaluated at the site

and indicated that the site did not pose a risk warranting any action.

No feasibility study was conducted since a risk evaluation concluded that there were no risks to human health and the environment.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in February 2000. No risks requiring action are present at FS-2 (CG), and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-3 (FS-3)

##### Site Location and History

FS-3, the Johns Pond Fuel Dump Site, is located south of the MMR boundary, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 865984, 235664; 866044, 235743; 867241, 234840; 867181, 234760; and 865984, 235664. The area FS-3 proposed for partial deletion includes all structures and surface soils within these coordinates.

FS-3 is a three-acre area which consists of a 1,500 foot road section along Back Road and 50 feet on either side of the road. It was estimated that between 1955 and 1962, an average of three aircraft refueler trucks per week each drained 40 gallons of fuel or fuel-contaminated water onto the shoulders of this road section.

#### Investigation and Feasibility Study Activities

A preliminary assessment in 1986 identified FS-3 as a potential area of past uncontrolled releases of hazardous substances. A site investigation which included a soil gas survey, soil boring and monitoring well installation, and collection and analysis of soil and groundwater samples was conducted in 1988. Soil data showed an absence of contaminant source areas and were consistent with background values for inorganics. Fuel-related compounds were not detected in groundwater. The investigation data supported that there was no contaminated soil or groundwater from the historical releases.

No feasibility study was conducted since a risk evaluation concluded that

there were no risks to human health and the environment.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in January 2000. No risks are present at FS-3 and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-15 (FS-15)

##### Site Location and History

FS-15, Runway No. 5, is located in the secure flightline area of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 864651, 238513; 864787, 238949; 865144, 238777; 864832, 238386; and 864651, 238513. The area FS-15 proposed for partial deletion includes all surface soils within these coordinates.

FS-15 is a three-acre area which was known as the Runway No. 5 fuel spill of aviation gasoline. It was reported to have occurred in the early 1960s when a plane crashed near at the southern end of the runway by the same name. A significant amount of the fuel was consumed in a fire.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The records search concluded that there was negligible contaminant migration into the soil and groundwater because the fire following the fuel spill consumed the fuel.

No feasibility study was conducted since the records search concluded that the spill did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in August 1990. No risks are present at FS-15 and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-16 (FS-16)

##### Site Location and History

FS-16, Army Maintenance, Building 2816, is located in the secure flightline area of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 863696, 241715; 863796, 241952; 863998, 241855; 863892, 241627; and 863696, 241715. The area FS-16 proposed for partial deletion includes all surface soils and structures within these coordinates.

FS-16 is a one-acre area which was located outside of Building 2816, the Army Helicopter Maintenance Building, where a tanker truck spilled approximately 200 gallons of JP-4 in 1982. The spill was washed off the tarmac and into the surrounding ground.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The records search concluded that there was negligible contaminant migration into the soil and groundwater because the volume of spilled fuel was small and it was assumed that a majority of the spilled fuel volatilized and degraded over time.

No feasibility study was conducted since the records search concluded that the spill did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at FS-16 and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-27 (FS-27)

##### Site Location and History

FS-27 is located south of the MMR boundary, as shown in Figure 4. It is three parcels with coordinates in Easting and Northing coordinates (NAD27). The first parcel's coordinates

are: 857983, 238854; 857986, 238536; 857917, 238536; 857918, 238854; and 857983, 238854. The second parcel's coordinates are: 855492, 242421; 855716, 242424; 855716, 242258; 855494, 242260; and 855492, 242421. The third parcel's coordinates are: 858088, 244484; 859974, 243704; 859949, 243537; 860044, 243382; 860235, 243323; 860326, 243027; 862694, 241938; 861667, 239703; 861660, 239707; 862683, 241932; 860319, 243022; 860229, 243316; 860036, 243377; 859941, 243536; 859966, 243700; 858085, 244476; 854176, 246140; 854023, 245467; 853789, 245026; 853460, 244616; 853187, 244306; 853109, 243761; 853238, 243553; 852968, 243312; 852963, 243318; 853228, 243557; 853100, 243760; 853180, 244310; 853454, 244621; 853782, 245031; 854015, 245469; 854168, 246143; 852475, 246877; 850727, 248013; 850572, 248268; 850170, 249298; 849787, 249779; 849347, 250292; 849095, 250502; 848664, 250713; 848399, 250928; 848404, 250934; 848668, 250720; 849099, 250509; 849353, 250297; 849793, 249784; 850177, 249302; 850580, 248271; 850732, 248020; 852482, 246881; and 858088, 244484. The area FS-27 proposed for partial deletion includes all surface soils within these coordinates.

FS-27 is composed of three areas totaling six acres where soil excavated during the installation of a fiber-optic cable line along Connery Avenue, West Hospital Road, North Inner Road, and Generals Boulevard was stockpiled. The stockpiles were: beneath overhead power lines off Guenther Road (approximately 1,000 cubic yards); and in an embankment (approximately 480 cubic yards) behind Building 5202 (the 3-in-1 Store).

#### Investigation and Feasibility Study Activities

Investigation of potential contamination from FS-27 excavated soil was initiated because petroleum hydrocarbons were detected in March 1990 in soil from the Guenther Road stockpile when it was used as backfill at another site. A site inspection at FS-27 along the fiber optic line was conducted in 1993. A remedial investigation of the area adjacent to Building 5202 was conducted in 1993-1994. A supplemental investigation was conducted in 1999. Activities included subsurface soil sampling, installation of monitoring wells, and analyses of soil and groundwater samples.

Results from the investigations demonstrated that the soil was not

significantly impacted from site activities. Groundwater samples near Building 5202 show that the soil is not contaminated and impacting the groundwater.

No feasibility study was conducted since a risk evaluation concluded that there were no risks to human health or the environment.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in May 2001. No risks are present at FS-27 and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-1 (U.S. Coast Guard) (LF-1 (CG))

##### Site Location and History

LF-1 (CG) is located in the southeastern portion of MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 866535, 243403; 866639, 242391; 865910, 242353; 865811, 243343; and 866535, 243403. The area LF-1 (CG) proposed for partial deletion includes all surface soils within these coordinates.

LF-1 (CG) is a 16-acre area that was used for disposal of asphalt and debris generated during a runway extension project completed in the 1950s.

#### Investigation and Feasibility Study Activities

This site was initially identified in the records search in 1986. Empty containers and asphalt rubble were observed during a walkover which was conducted in February 1990. A single downgradient monitoring well was installed to monitor for potential impact of the site on groundwater. Groundwater sampling results demonstrated no impact to groundwater quality.

No feasibility study was conducted since no contaminants of concern were identified.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in December 1995. No risks are present at LF-1 (CG) and no institutional controls are present.



#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-2 (U.S. Coast Guard) (LF-2 (CG))

##### Site Location and History

LF-2 (CG), U.S. Coast Guard Rubble Landfill, is located in the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 855740, 242295; 856395, 242984; 856699, 242717; 856038, 242032; and 855740, 242295. The area LF-(CG) proposed for partial deletion includes all surface soils within these coordinates.

LF-2 (CG) is a nine-acre area which was used for the disposal of asphalt and concrete.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at LF-2 (CG) and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-3 (LF-3)

##### Site Location and History

LF-3 is located in the northeastern edge of MMR, as shown in Figure 3. Its coordinates in Easting and Northing coordinates (NAD27) are: 875410, 267386; 875088, 267242; 874688, 268236; 875009, 268380; and 875410, 267386. The area LF-3 proposed for partial deletion includes all surface soils within these coordinates.

LF-3 consists of several piles of sand located along the eastern edge of a deep, steep sloping kettle depression.

#### Investigation and Feasibility Study Activities

In 1985, this unauthorized disposal area was identified from an adjacent dirt road. It was reported to contain 'household items, trash, construction debris, mattresses, furniture, and brush piles.' No evidence of hazardous waste (i.e., empty fuel or paint cans, or drums) was observed.

On August 6, 1996, representatives from EPA, MassDEP, Army, and AFCEE conducted a site visit. At the time of the site visit, the area was observed to be overgrown with trees and shrubs. No evidence of waste, debris or contamination was visible.

No feasibility study was conducted since past waste disposal was determined not hazardous and removed, and then replaced with clean sand.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in April 1997. No risks are present at LF-3 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1985, following the discovery of the unauthorized dumping, approximately two five-ton dump truck loads of debris was removed in a non-CERCLA action, and taken to the main base landfill.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-3 (U.S. Coast Guard) (LF-3 (CG))

##### Site Location and History

LF-3 (CG), U.S. Coast Guard Rubble Landfill, is located in the Cantonment Area of the MMR, as shown in Figure 3. Its coordinates in Easting and Northing coordinates (NAD27) are: 871815, 259843; 872208, 260744; 872648, 260310; 872235, 259424; and 871815, 259843. The area LF-3 (USCG) proposed for partial deletion includes all surface soils within these coordinates. LF-3 (CG) is a 13-acre area which was used for the disposal of demolition rubble and debris.

The site received sand and gravel excavated from the construction of a dispensary building.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances.

No feasibility study was conducted since the records search concluded that the site did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at LF-3 (CG) and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-5 (LF-5)

##### Site Location and History

LF-5, Rubble Landfill at Veterans Administration Cemetery, is located in the Cantonment Area of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 854089, 245737; 853972, 245339; 853768, 245007; 853211, 245502; 853293, 245758, and 854089, 245737. The area LF-5 proposed for partial deletion includes all surface soils within these coordinates.

LF-5 is a ten-acre area which contained a concrete rubble and debris fill area.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances.

No feasibility study was conducted since the records search concluded that the landfill did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in August 1990. No risks are present at LF-5 and no institutional controls are present.



#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-6 (LF-6)

##### Site Location and History

LF-6, former U.S. Navy Construction Landfill, is located in the secure flightline area just west of Runway 5, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 865512, 240132; 865654, 240686; 865844, 240664; 865915, 240040, and 865512, 240132.

The area LF-6 proposed for partial deletion includes all surface soils within these coordinates.

LF-6 is a four-acre area which contained a debris and concrete rubble fill area during expansion of the taxiway area and has been paved over.

##### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. The site was assessed and found to have no evidence of past disposal or spills of hazardous substances.

No feasibility study was conducted since the records search concluded that the landfill did not impact the soil and groundwater.

##### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in August 1990. No risks are present at LF-6 and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been taken and no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### 2. Investigation Findings and Response Action Summaries

These sites have been investigated and have had actions (CERCLA and/or non-CERCLA) to reduce and/or eliminate any risk to human health and environment, and to prevent soil contamination from leaching into groundwater. Sites with structures that are part of the partial deletion are noted

at the beginning of each of the descriptions. Table 3 which is found in a tables appendix in the Deletion Docket contains a summary of the site names. There are a total of 44 sites in this group. Figures showing the location of the following sites are found in the figures appendix of the Deletion Docket.

#### Chemical Spill-1 (CS-1)

##### Site Location and History

CS-1 is located on North Truck Road, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 864286, 242486; 860657, 244156; 860795, 244472; 861764, 243991; 861854, 244185; 864463, 242886; and 864286, 242486. The area CS-1 proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-1 was active from 1941 to 1946, and was a 40-acre vehicle maintenance site with a motor pool, 11 vehicle maintenance buildings, and 11 gas stations. Other components of the site included 12 catch basins located within the paved motor pool areas, 11 leaching wells associated with the vehicle maintenance buildings, and the fenced perimeter that received surface runoff from the pavement.

##### Investigation and Feasibility Study Activities

A site inspection at CS-1 was conducted in 1993 and led to two rounds of confirmational sampling in 1995 and 1999. The site inspection field work consisted of magnetometer surveys, surface and subsurface soil sampling, monitoring well installation, and groundwater sampling.

The field work identified two USTs, confirmed removal of USTs near a taxiway, found metals (beryllium, chromium, lead, nickel, and thallium) in unfiltered groundwater samples, detected low concentrations of organic compounds in groundwater samples, and found contamination in catch basins and vehicle maintenance building leaching wells. Groundwater sampling in 1995 using the low flow purge and sampling technique showed that metals were below action levels at the site and earlier detections were due to suspended particulates. The site inspection recommended removal of existing USTs, vehicle maintenance building foundation slabs, work pits and associated soil, and catch basins. A groundwater sampling event in 1999 confirmed that there was no organic groundwater contamination present below the site.

No feasibility study was conducted since response actions in the form of

CERCLA removal actions were conducted as part of the basewide drainage structure removal program.

##### Characterization of Risk and Decision Document Findings

Due to the response actions conducted under the drainage structure removal program in 1996, a No Further Action Decision Document was finalized in September 1999. No further risks are present at CS-1 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1985 and 1986, nine USTs were removed under non-CERCLA authority (*i.e.*, no Action Memorandum was issued). In addition, as part of a basewide drainage structure CERCLA removal program, a total of 49 drainage structures and associated contaminated soil (approximately 900 tons) were removed in 1996. Two 5,000 gallon USTs inside the flight line area were identified and removed. Excavated soil was transported to an on-base asphalt batching facility.

Given its location in an active portion of the MMR, structures related to airfield activities remain present within the former CS-1 site.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-1 (U.S.Coast Guard) (CS-1 (CG))

##### Site Location and History

Chemical Spill-1 (U.S. Coast Guard) (CS-1 (CG)) is also known as the U.S. Coast Guard Transmitter Station and is shown in Figure 3. Its coordinates in Easting and Northing coordinates (NAD27) are: 871486, 261949; 871765, 261814; 871693, 241646; 871825, 261572; 871681, 261267; 871107, 261544; 871292, 261850; 871406, 261794; and 871486, 261949. The area CS-1 (CG) proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-1 (CG) occupies a six-acre area where a building, a 4,000-gallon underground storage tank, and storage sheds are located. Between 1968 and 1975, activities such as disposal of waste solvent on the ground and burial of used electrical components may have released contaminants into the environment. Drummed solvents were stored on-site; however the storage area has since been removed of drums and covered by an addition to the transmitter building.

#### Investigation and Feasibility Study Activities

Site investigations were conducted to characterize the nature and distribution of contaminants at CS-1 (CG) between 1986 and 1993. A ground-penetrating radar survey identified anomalies in which electrical cabinets were found and removed. The SI and RI did not identify compounds at concentrations indicative of disposal of hazardous substances.

No feasibility study was conducted since the site did not pose a risk.

#### Characterization of Risk and Decision Document Findings

The investigations concluded that the site did not pose a risk. A Record of Decision was finalized in September 1995 and selected no further action with semi-annual groundwater monitoring for volatile organic compounds. In July 2004, after several years of monitoring data, an agreement was reached to cease groundwater monitoring as concentrations were below any action levels.

No further risks are present at CS-1 (CG) and no institutional controls are present.

#### Response Actions and Cleanup Standards

No response actions have been conducted, therefore no cleanup standards have been set.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-2 (CS-2)

##### Site Location and History

CS-2 is located in the Cantonment Area of the MMR, as shown in Figure 5. It is composed of two parcels. Their coordinates in Easting and Northing coordinates (NAD27) are: 863028, 237328; 863695, 238801; 863882, 238716; 863205, 237242; and 863028, 237328 for parcel A; and 863989, 240813; 864349, 240657; 864097, 240141; 863963, 240203; 864145, 240589; 863929, 240685; and 863989, 240813 for parcel B. The area CS-2 proposed for partial deletion includes all surface soils within these coordinates.

CS-2 is a ten-acre area composed of three former motor pools and subsurface structures associated with a building. Each motor pool which was active from 1941 to 1946 originally consisted of a vehicle maintenance building, a gas station with a leaching well, one or two

underground storage tanks, and one or two other buildings.

#### Investigation and Feasibility Study Activities

CS-2 was identified as a potential site from a records search which was conducted in 1986. A sump investigation was conducted in 1991 which led to a site inspection in 1993 and groundwater sampling in 1999. The site inspection field work consisted of magnetometer surveys, surface and subsurface soil sampling, monitoring well installation, and groundwater sampling focusing on the presence or absence of contamination associated with the former motor pools and subsurface structures.

The site inspection's magnetometer survey confirmed that five USTs associated with Blocks 2, 4 and 5 were removed. Sampling results for soil and groundwater did not identify significant organic or metals contamination from historical uses. A groundwater sampling event in 1999 confirmed that there was no organic or metals contamination as the results were below action levels.

No feasibility study was conducted since a CERCLA removal response action removed drainage structures which were potential contamination sources, and a risk evaluation determined that there were no risks to human health or the environment.

#### Characterization of Risk and Decision Document Findings

Due to the response actions conducted under the drainage structure removal program in 1996, a No Further Action Decision Document was finalized in November 2000. No further risks are present at CS-2 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In the early to mid-1980s, five USTs associated with Blocks 2, 4 and 5 were removed under non-CERCLA authority. In addition, as part of a CERCLA basewide drainage structure removal program, a total of 18 drainage structures and associated contaminated soil were removed in 1996. Excavated soil was transported to an on-base asphalt batching facility.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-2 (U.S. Coast Guard) (CS-2 (CG))

##### Site Location and History

CS-2 (CG) is located within the secured flightline area of the MMR, as shown in Figure 5. The coordinates in Easting and Northing coordinates (NAD27) are: 866410, 244042; 867591, 244186; 867664, 243676; 867263, 243637; 867313, 243185; 867049, 243157; 867000, 243604; 866463, 243551; and 866410, 244042. The area CS-2 (CG) proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-2 (CG) is a 16-acre area which featured U.S. Coast Guard Air Station Hangars 3170 and 3172, a former auto hobby shop in Building 3161, a former Ground Support Shop in Building 3162, and administrative facilities in Buildings 3163 and 3164.

#### Investigation and Feasibility Study Activities

CS-2 (CG) was investigated several times between 1989 and 1995 with additional groundwater and sediment sampling in 1999. Investigation activities included a geophysical survey, soil gas survey, test pitting, soil borings, installation of monitoring wells, and collection and analysis of soil and sediment samples. Results of the site investigations indicated minor releases of fuel, polychlorinated biphenyls, and inorganic compounds in the area. However, based on the results of a risk evaluation, unacceptable human health and ecological risks are not expected from exposures to soil and groundwater.

No feasibility study was conducted since a CERCLA response action removed drainage structures which were potential contamination sources, and a risk evaluation determined that there were no risks to human health or the environment.

#### Characterization of Risk and Decision Document Findings

Due to the response actions conducted under the drainage structure removal program in 1996, a No Further Action Decision Document was finalized in November 2000. No further risks are present at CS-2 (CG) and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1996, a leaching well and leach field associated with Building 3170 were removed in a CERCLA removal action as part of a basewide drainage structure removal program. A dry well located west of Building 3162 was replaced in 1992 and contaminated sediments were removed. In April 1993, an 8,000 gallon underground storage tank was removed in a non-CERCLA action.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-3 (CS-3)

##### Site Location and History

CS-3, South Truck Road Motor Pool, is located in the southern portion of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 858508, 238559; 858508, 238564; 861531, 237143; 851364, 236782; 860282, 237287; 860004, 236700; 859113, 237123; 859391, 237706; 858339, 238201; and 858508, 238559. The area CS-3 proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-3 is a 45-acre area which featured a motor pool which was used by various agencies (U.S. Army from 1940 to 1946; Air National Guard Civil Engineering from 1950 to 1973; and U.S. Air Force from 1955 to 1973).

##### Investigation and Feasibility Study Activities

Following a preliminary assessment in 1986, CS-3 was investigated and characterized during two site inspections in 1988 and 1989, and a groundwater sampling program in 1999. Investigation activities included: a soil gas survey; excavation of test pits; installation of test boring and monitoring wells; and soil and groundwater sampling and analysis. In 1991, sumps at CS-3 were investigated as part of a basewide investigation program.

Soil and groundwater sampling detected minimal contamination. Results of the human health and ecological risk assessments suggest that unacceptable levels of risk are not anticipated.

No feasibility study was conducted since response actions in the form of non-CERCLA and CERCLA removal actions were conducted and the investigations concluded that the site did not pose a risk to human health or the environment.

##### Characterization of Risk and Decision Document Findings

The risk assessment concluded no significant risk to human health and environment. A No Further Action Decision Document was finalized in June 2000. No further risks are present at CS-3 and no institutional controls are present.

#### Response Actions and Cleanup Standards

Several response actions have been conducted at the site. In 1985, six underground storage tanks were removed in a non-CERCLA action. In 1996, six underground drainage structures were removed in a CERCLA action, and one was abandoned in place during a base-wide drainage structural removal program.

##### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-3 (U.S. Coast Guard) (CS-3 (CG))

##### Site Location and History

CS-3 (CG) occupies approximately two acres in the south central portion of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 855290, 242137; 855401, 242259; 855631, 242260; 855777, 242169; 855597, 242919; and 855290, 242137. The area CS-3 (CG) proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-3 (CG) was the former location of an automobile service and gasoline station. The site is currently occupied by a gasoline station, convenience store, and garden shop. Activities that may have introduced hazardous substances to this area occurred from 1951 to 1979.

##### Investigation and Feasibility Study Activities

A records review for CS-3 (CG) was conducted in 1986. A remedial investigation was conducted during 1991. Surface and subsurface soil samples were collected from various locations such as former USTs and the leaching well.

In both soil and groundwater, there were sporadic detections of VOCs (1,2-dichloromethane, toluene, xylenes, and ketones), TPH, SVOCs (i.e., bis-2(ethylhexyl)phthalate, benzo(a)pyrene, benzo(b)fluoranthene, trimethylbenzenes (in groundwater only)), pesticides (i.e., chlordane, dichlorodiphenyltrichloroethane (DDT)) and metals (in groundwater only) (i.e., arsenic, manganese, lead, and thallium). Since soil and groundwater detections were detected sporadically and below action levels, it was concluded that widespread disposal of hazardous waste has not occurred at CS-3 (CG). Considering that detections were below background concentrations and action levels, the human health and ecological

risk assessments determined that the site does not pose a risk.

No feasibility study was conducted since response actions in the form of non-CERCLA and CERCLA removal actions were conducted and the remedial investigation concluded that the site did not pose a risk to human health or the environment.

##### Characterization of Risk and Decision Document Findings

The risk assessment concluded no significant risk to human health and environment. A No Action Record of Decision was finalized in September 1998. No further risks are present at CS-3 (CG) and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1985, an underground storage tank was found to be leaking and a non-CERCLA removal action was conducted to remove the UST and associated petroleum contaminated soil. In 1994, three former gasoline USTs were removed in a non-CERCLA action and replaced with aboveground storage tanks. Approximately 340 cubic yards of contaminated soil was removed during the UST removal. In 1996, sediment and sludge inside a leaching well was removed in a CERCLA removal action, however the leaching well and associated discharge pipes were not removed because they are partly buried behind Building 5202 and it was determined that the leaching well and discharge pipes did not pose a future source of soil and/or groundwater contamination.

##### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-4 (CS-4)

##### Site Location and History

Chemical Spill-4 (CS-4) is located in the southern section of the MMR within the outline of the CS-10 groundwater plume as shown on Figure 4. CS-4 consists of two parcels whose coordinates in Easting and Northing coordinates (NAD27) are: 859012, 243969; 859939, 243607; 860065, 243369; 859920, 243079; 859234, 243403; and 859012, 243969 for parcel A; 858358, 241466; 858018, 241673; 858913, 243535; 859230, 243395; and 858358, 241466 for parcel B. The area CS-4 proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-4 is a 28 acre area to the northeast of West Truck Road and Gaffney Road which contained a former gasoline station, and is an area south of Gaffney Road which contained a former storage yard of the Defense Property Disposal Office which operated from 1965 to 1985. Military vehicles were maintained by the U.S. Army from 1940 to 1946 and by the U.S. Air Force from 1955 to 1973.

#### Investigation and Feasibility Study Activities

Initial investigations in 1986 and 1988 identified petroleum-related and chlorinated solvent contaminated soil and sediment in the area known as West Truck Road Motorpool which is South of Truck and Gaffney Roads. An engineering evaluation/cost analysis report to address this contaminated soil in the West Truck Road Motorpool area was prepared in May 1993.

Investigations for the area to the northeast of West Truck and Gaffney Roads were conducted in 1994, 1996, and 2001. The investigation activities included: ten test pits; surface and surface soil samples; installation of one monitoring well; and groundwater samples.

Investigations indicated that pesticides and inorganics were detected in soil and required action. Shallow groundwater sample results did not indicate contamination requiring action.

An engineering evaluation/cost analysis report was conducted to evaluate removal action alternatives to address the contaminated soil in the area to the northeast of West Truck Road and Gaffney Road.

#### Characterization of Risk and Decision Document Findings

A non-time critical removal Action Memorandum for the West Truck Road Motorpool documented the soil removal and treatment in 1994. Investigations concluded that soil which was contaminated with volatile organic compounds had a major source of the CS-4 groundwater plume and was a continuing threat to the groundwater due to leaching.

The Site Inspection Report concluded that: dieldrin, chromium, cadmium, cyanide, lead, and zinc posed a human health and ecological risk. An Action Memorandum for CS-4 was issued in January 2002.

#### Response Actions and Cleanup Standards

By 1984, six 5,000 gallon underground storage tanks were removed in non-CERCLA actions. In 1994, approximately 11,000 cubic yards (13,235 tons) of contaminated soil from

the South Truck Road Motor Pool was removed in a CERCLA non-time critical removal action. The soil was treated on-base in a low temperature thermal desorption system. The removal action cleanup standards were: 0.005 mg/kg for benzene (leaching to groundwater); 0.005 mg/kg for trichloroethylene (leaching to groundwater); and 0.005 mg/kg for perchloroethylene (leaching to groundwater). A removal action report was issued in September 1999.

In 2002, approximately 2,600 cubic yards of contaminated soil from the area northeast of West Truck Road and Gaffney Road was removed in a CERCLA removal action and transported off-site for treatment and/or disposal. During this removal action, a 500-gallon underground storage tank with 275 gallons of diesel fuel were discovered and also removed. The removal action cleanup standards were: 99 mg/kg for Lead (ecological); 68 mg/kg for Zinc (ecological); 1.0 mg/kg for Arochlor 1260 (human health); 0.227 mg/kg for 4,4'-DDE (ecological); 0.25 mg/kg for 4,4'-DDT (ecological); 0.035 mg/kg for Dieldrin (ecological); 200 mg/kg for Total Petroleum Hydrocarbons; 1000 mg/kg (0–15 ft bgs)/5,000 mg/kg (greater than 15 ft bgs) for C<sub>9</sub>-C<sub>18</sub> Aliphatic Hydrocarbons; 2,500 mg/kg (0–15 ft bgs)/5,000 mg/kg (greater than 15 ft bgs) for C<sub>19</sub>-C<sub>36</sub> Aliphatic Hydrocarbons; 200 mg/kg (0–15 ft bgs)/200 mg/kg (greater than 15 ft bgs) for C<sub>11</sub>-C<sub>22</sub> Aromatic Hydrocarbons; 100 mg/kg (0–15 ft bgs)/500 mg/kg (greater than 15 ft bgs) for C<sub>5</sub>-C<sub>8</sub> Aliphatic Hydrocarbons; 1,000 mg/kg (0–15 ft bgs)/5,000 mg/kg (greater than 15 ft bgs) for C<sub>9</sub>-C<sub>12</sub> Aliphatic Hydrocarbons; and 100 mg/kg (0–15 ft bgs)/100 mg/kg (greater than 15 ft bgs) for C<sub>9</sub>-C<sub>10</sub> Aromatic Hydrocarbons. The removal action for CS-4 was documented in a removal action report which was issued in September 2005.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

Chemical Spill-4 (U.S. Coast Guard)/ Fuel Spill-1 (U.S. Coast Guard) (CS-4 (CG)/FS-1 (CG))

#### Site Location and History

Chemical Spill-4 U.S. Coast Guard/ Fuel Spill-1 U.S. Coast Guard (CS-4 (CG)/FS-1 (CG)) is located in the southern section of the MMR, as shown in Figure 5 within the outline of the CS-10 groundwater plume. CS-4 (CG)/FS-1 (CG) coordinates in Easting and Northing coordinates (NAD27) are: 867997, 238955; 868394, 238660;

868369, 238629; 868310, 238672; 868211, 238546; 868145, 238601; 868132, 238555; 867975, 238349; 867671, 238576; and 867997, 238955. The area CS-4 (CG)/FS-1 (CG) proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-4 (CG)/FS-1 (CG) is a five-acre area which featured Hangar Building 128 and its surrounding area. From 1955 to 1970, Hangar 128 was used to maintain U.S. Air Force EC-121 (i.e., Super-Constellation) aircraft. During that time, unknown quantities of solvents (i.e., toluene and TCE) and aviation gasoline washed into the stormwater drainage system. From 1976 to 1988, Hangar was used by the USCG to maintain fixed-wing aircraft. In 1978, two spills occurred at the hangar. An aviation gasoline spill of approximately 1,000 gallons occurred on the tarmac on the northern side of the hangar and was washed into the stormwater drainage system.

The second aviation gasoline spill of approximately 250 gallons occurred on the southern side of the hangar and was washed onto surrounding soil.

#### Investigation and Feasibility Study Activities

The site was first investigated in 1993, then in 1995, a follow-up investigation occurred. The soil and groundwater investigation focused on the areas of the reported spills and an acid leaching pit on the western side of the hangar. Groundwater did not require action, however contaminated soil was recommended for a removal action.

A site investigation was completed in 1993 and identified pesticides as the contaminant of concern as there were no herbicides detected. The investigation activities included: ten test pits; surface and surface soil samples; installation of one monitoring well; and groundwater samples.

Investigations indicated that pesticides and inorganics were detected in soil and required action. Groundwater sample results did not indicate contamination requiring action.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

#### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that: Dieldrin, Chromium, Cadmium, cyanide, lead, and zinc posed a human health and ecological risk. A multi-site Action Memorandum with CS-4 (CG)/FS-1 (CG) as one of the sites was issued in 1999.

## Response Actions and Cleanup Standards

By August 2001, approximately 318 cubic yards of contaminated soil was excavated and transported off-site for disposal. The removal action cleanup standards were: 0.035 mg/kg for Dieldrin (ecological); 19 mg/kg for Chromium (ecological); 1.8 mg/kg for Cadmium (ecological); 1.0 mg/kg for cyanide (background); 99 mg/kg for lead (ecological); 68 mg/kg for zinc (ecological). The removal action for CS-4 (CG)/FS-1 (CG) was documented in a removal action report which was issued in April 2004.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

## Chemical Spill-5 (CS-5)

### Site Location and History

Chemical Spill-5 (CS-5) is located in the Cantonment section of the MMR, as shown in Figure 4, within the footprint of the CS-10 groundwater plume. CS-5 coordinates in Easting and Northing coordinates (NAD27) are: 857269, 242122; 857465, 242403; 857647, 242423; 857839, 242306; 857906, 242189; 857850, 242105; 857797, 242082; 857664, 241877; and 857269, 242122. The area CS-5 proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-5 is a five-acre area adjacent to Building 3461 which was used as a weapons repair shop from 1941 to 1946, and a refueler maintenance and spray paint shop from 1955 to 1967. Releases from the building's activities (i.e., oils, solvents, paints, fuel, etc) may be contributed to site contamination.

## Investigation and Feasibility Study Activities

A soil, sediment, and groundwater investigation was completed in October 1993. In 1996, as part of a basewide drainage structure removal program, a leaching well at CS-5 was removed, and a wash rack was decontaminated and abandoned in place by concrete. Groundwater did not require action, however contaminated soil was recommended for a removal action.

Investigations were conducted in 1993 and 1995, and identified polychlorinated biphenyl soil contamination which required cleanup.

A preliminary assessment was completed in 1999 and identified petroleum-contaminated soil requiring action. In the spring of 2000, a non-CERCLA removal action was conducted,

then the site was further investigated in 2001.

Seventeen additional surface soil and subsurface soil samples were collected at the area of the previous excavation as well as debris piles at the site. The site investigation and risk evaluation for human health and ecological risk concluded that a removal action was needed to address metals, petroleum and polynuclear-aromatic hydrocarbon contamination. Prior to the removal action, an additional 95 soil samples were collected at 47 locations.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

## Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that Benzo(a)anthracene, Benzo(b)anthracene, Benzo(k)anthracene, Benzo(k)anthracene, Benzo(g,h,i)anthracene, Benzo(a)pyrene, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, and Phenanthrene posed a human health and ecological risk. A multi-site Action Memorandum with CS-5 as one of the sites was issued in 1999.

## Response Actions and Cleanup Standards

By May 2001, approximately 86 cubic yards of contaminated soil was excavated and transported off-site for disposal. The removal action cleanup standards were: 5 mg/kg for Benzo(a)anthracene; 5 mg/kg for Benzo(b)anthracene; 5 mg/kg for Benzo(k)anthracene; 5 mg/kg for Benzo(k)anthracene; 5 mg/kg for Benzo(g,h,i)anthracene; 5 mg/kg for Benzo(a)pyrene; 0.625 mg/kg for Chrysene; 5 mg/kg for Dibenzo(a,h)anthracene; 7.81 mg/kg for Fluoranthene; 5 mg/kg for Indeno(1,2,3-c,d)pyrene; and 0.625 mg/kg for Phenanthrene. The removal action for CS-5 was documented in a removal action report which was issued in April 2004.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

## Chemical Spill-6/Fuel Spill-22 (CS-6/FS-22)

### Site Location and History

CS-6/FS-22 is a nine-acre area located in Cantonment area of MMR, as shown in Figure 4. The coordinates for CS-6 in Easting and Northing coordinates (NAD27) are: 860916,

237702; 861142, 238157; 861650, 237928; 861426, 237463; and 860916, 237702. The coordinates for FS-22 in Easting and Northing coordinates (NAD27) are: 862327, 247882; 862853, 247110; 862794, 246747; 862334, 247011; 861977, 247666; 861907, 248078; and 862327, 247882. The area CS-6/FS-22 proposed for partial deletion includes all surface soils and existing structures at CS-6 within these coordinates.

CS-6/FS-22 includes Building 754 and the area immediately surrounding it which has been used as a vehicle maintenance shop since 1967.

## Investigation and Feasibility Study Activities

CS-6/FS-22 was identified in a records search in 1986. CS-6 includes structures and features functioned as three waste discharge points including a former oil/water separator, a leaching well, and paved areas draining to the drainage structures or site perimeters. FS-22 is a drainage ditch located south of and adjacent to CS-6 where in 1984 a 4,500 gallon fuel spill resulted in a discharge of fuel to the drainage ditch.

Subsurface soil samples were collected during a sump investigation program and confirmed that the drainage structures have not caused any soil contamination since results were below action limits. Groundwater immediately downgradient of these structures was also not impacted.

A Site Inspection investigation was conducted between November 1992 and March 1993. The investigation included surface soil sampling and subsurface soil sampling at four areas, and groundwater sampling at upgradient and downgradient locations. A follow-up investigation was conducted in October 1994. Additional groundwater sampling in October 1998 supported that the site did not impact groundwater quality. Sampling in the drainage ditch (FS-22) confirmed the presence of fuel constituents but concentrations were below action levels.

No feasibility study was conducted since response actions in the form of a non-CERCLA spill response and soil removal action, investigation data, and a tiered human health and ecological risk evaluation support no further action.

## Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in April 2000. No risks requiring action are present at CS-6/FS-22 and no institutional controls are required.

## Response Actions and Cleanup Standards

In 1984, a 4,500 gallon fuel spill occurred in a drainage ditch associated with FS-22. All free product was removed and visibly contaminated soil was excavated in a non-CERCLA action. In 1989, piping between an oil/water separator and a leaching well was sealed. The leaching well was filled with sand.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

## Chemical Spill-6 (U.S. Coast Guard) (CS-6 (CG))

### Site Location and History

CS-6 (CG) is located in the south-central portion of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 854635, 241470; 854816, 241814; 855350, 241395; 855074, 241085; 855015, 241118; and 854635, 241470. The area CS-6 (CG) proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-6 (CG) is a six-acre area which includes U.S. Coast Guard Building 5215 in which maintenance shops have been housed since 1973. Prior to 1973, the building was used as a Noncommissioned Officers Club.

## Investigation and Feasibility Study Activities

CS-6 (CG) was identified in a records search in 1986. CS-6 (CG) consists of the U.S. Coast Guard Building 5215 which houses maintenance shops. Wastes generated included oils, hydraulic fluid, and cleaning solvents. A 2,000 gallon underground storage tank and two aboveground storage tanks were noted at the site in an investigation in 1989.

Surface soil results collected in 1989 indicated minor fuel spills in the area around the former above ground storage tanks. Subsequent soil sampling in 1999 confirmed that the soil removal was complete. Groundwater sampling results show that site activities have not adversely affected the groundwater quality.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions and investigation data support no further action.

## Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in June 2000. No further risks are present at CS-6 (CG) and no institutional controls are present.

## Response Actions and Cleanup Standards

In September 1990, approximately six cubic yards of contaminated soil was removed in a non-CERCLA action after the removal of two above ground storage tanks. In May 1993, a 2,000 gallon UST was removed in a non-CERCLA action.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

## Chemical Spill-8/Fuel Spill-21 (CS-8/FS-21)

### Site Location and History

CS-8/FS-21 are located next to each other in a three-acre area which is located in the Cantonment portion of the MMR, as shown in Figure 5. CS-8 coordinates in Easting and Northing coordinates (NAD27) are: 862819, 237371; 862971, 237301; 862846, 237023; 862693, 237087; and 862819, 237371. FS-21 coordinates in Easting and Northing coordinates (NAD27) are: 862970, 237301; 863140, 237224; 862980, 236868; 862813, 236946; and 862970, 237301. The area CS-8/FS-21 proposed for partial deletion includes all surface soils and existing structures within these coordinates.

CS-8 is known as the Operational Motor Pool. It included an active and an abandoned concrete wash pad, a cesspool, and a 12,500 gallon diesel-fuel UST and pump island located west of a vehicle repair shop. The vehicle repair shop ceased operations in 1998. FS-21 is the former location of a 5,000 gallon motor vehicle gasoline UST known as Current Product Tank No. 90. Wastes generated included waste solvents, oils, battery electrolyte, and fuels.

## Investigation and Feasibility Study Activities

CS-8/FS-21 was initially identified in a records search in 1986. Site investigations were developed to evaluate whether past maintenance activities, waste-disposal methods, and potential leaks from USTs posed a risk and required action. Investigation efforts, which included a soil-gas survey, ten test pits, six soil boring, four monitoring wells, soil samples, and groundwater samples, showed no

significant contamination of soil or groundwater. Investigation confirmed that the UST removals were complete. Risks to human health and the environment from exposure to detections were below levels requiring action.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions and investigation data support no further action.

## Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in October 2000. No risks requiring action are present at CS-8/FS-21, and no institutional controls are present.

## Response Actions and Cleanup Standards

In 1988, a 5,000 gallon motor vehicle gasoline UST and a 12,500 gallon diesel fuel UST were removed in a non-CERCLA action and replaced with double-walled tanks of the same size. The 5,000 gallon UST and the 12,500 gallon UST were removed in a non-CERCLA action in 1996 and 1999, respectively. In 1996, a cesspool was removed in a CERCLA removal action as part of a basewide drainage structure removal program.

## Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

## Chemical Spill-8 (U.S. Coast Guard) (CS-8 (CG))

### Site Location and History

CS-8 (CG) is located in the northern section of the MMR, as shown in Figure 3. CS-8 (CG) is a collection of three parcels whose coordinates in Easting and Northing coordinates (NAD27) are: 871484, 261883; 871510, 261938; 871570, 261911; 871544, 261854; and 871484, 261883 for parcel A; 872536, 261718; 872655, 261718; 872655, 261582; 872536, 261582; and 872536, 261718 for parcel B; 872547, 260877; 872645, 260877; 872645, 260751; 872547, 260751; and 872547, 260877 for parcel C. The area CS-8 (CG) proposed for partial deletion includes all surface soils within these coordinates.

CS-8 (CG) is a less than one-acre area (400 square feet) known as the Abandoned Radio Cabinet Area on the Coast Guard Transmitter Station property near the eastern boundary of the MMR.

### Investigation and Feasibility Study Activities

CS-8 (CG) was investigated with a Preliminary Assessment in 1999 and a Site Investigation (SI) in 2001. The SI included the collection of soil samples which identified soil contamination within the vicinity of the radio cabinet. Human health and ecological risks were evaluated and the SI concluded that a removal action was necessary to address these risks.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that cadmium, manganese and PCB-1254 posed a human health and ecological risk. An Action Memorandum documenting this non-time critical removal action was finalized in August 2002.

### Response Actions and Cleanup Standards

In December 2002, approximately 25 cubic yards of contaminated soil was removed and transported off-site for disposal in a CERCLA removal action. The removal action cleanup standards were: 1.8 mg/kg for cadmium; 274 mg/kg for manganese; and 1 mg/kg for PCB-1254 (Arochlor 1254). The removal action for CS-8 (USCG) was documented in a removal action report which was issued in August 2003.

### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

### Chemical Spill-9 (CS-9)

#### Site Location and History

CS-9 is located in the Cantonment portion of the MMR adjacent to the Landfill-1 source area, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 856956, 244929; 857918, 246417; 858598, 245943; 858240, 245412; 858123, 245484; 857508, 244681; and 856956, 244929. The area CS-9 proposed for partial deletion includes all surface soils within these coordinates.

CS-9 is a 22-acre area which featured a former motor pool and vehicle maintenance area which was used from 1941 to 1946 and had five leaching wells, four sumps, and three underground storage tanks.

### Investigation and Feasibility Study Activities

A site investigation was conducted in 1993. Fifteen test pits were excavated and stockpiled at a separate site. Soil and sump sediment samples were collected. Two monitoring wells were installed to evaluate the groundwater quality. The subsurface soil and groundwater data indicated that motor pool-related compounds have not migrated vertically within the site. Groundwater results from the investigation showed low levels of fuel- and solvent type compounds that are likely migrating from upgradient LF-1 rather than CS-9. Results of risk evaluations suggested no unacceptable risks to human health or the environment.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions and investigation data support no further action.

### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in June 1998. No further risks are present at CS-9 and no institutional controls are present.

### Response Actions and Cleanup Standards

Three USTs were removed in a non-CERCLA action in 1985. In March 1994, sump structures and contents, and contaminated soil were removed in a CERCLA removal action. Approximately 3,663 tons of soil was treated between August and October 1995 at a low-temperature thermal treatment unit which was located at MMR for another project.

### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

### Chemical Spill-11 (CS-11)

#### Site Location and History

Chemical Spill-11 (CS-11) is located in the southern section of the MMR, as shown in Figure 4 within the outline of the CS-10 groundwater plume. CS-11 coordinates in Easting and Northing coordinates (NAD27) are: 859381, 238984; 859576, 238898; 859476, 238677; 859280, 238764; and 859381, 238984. The area CS-11 proposed for partial deletion includes all surface soils and structures within these coordinates.

CS-11 is a one-acre area associated with Building 1116 which was used for the storage and mixing of pesticides and

herbicides from 1970 to 1983. Mixing of pesticides occurred on an asphalt concrete pad on the eastern side of Building 1116.

### Investigation and Feasibility Study Activities

A site investigation was completed in 1993 and identified pesticides as the contaminant of concern as there were no herbicides detected. The investigation activities included: Ten test pits; surface and surface soil samples; installation of one monitoring well; and groundwater samples. Investigations indicated that pesticides and inorganics were detected in soil and required action.

Groundwater sample results did not indicate contamination requiring action.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that: Dieldrin, Chromium, Cadmium, cyanide, lead, and zinc posed a human health and ecological risk. A multi-site Action Memorandum with CS-11 as one of the sites was issued in June 1999.

### Response Actions and Cleanup Standards

In 1983, when the pesticide shop was closed, approximately 200 pounds of pesticides were removed in a non-CERCLA action from Building 1116. In 2002, approximately 1,157 cubic yards of contaminated soil was removed in a CERCLA removal action and transported off-site for treatment and/or disposal. The removal action cleanup standards were: 0.035 mg/kg for Dieldrin (ecological); 19 mg/kg for Chromium (ecological); 1.8 mg/kg for Cadmium (ecological); 1.0 mg/kg for cyanide (background); 99 mg/kg for lead (ecological); 68 mg/kg for zinc (ecological). The removal action for CS-11 was documented in a removal action report which was issued in April 2004.

### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

### Chemical Spill-14 (CS-14)

#### Site Location and History

CS-14 is located in the southeastern portion of MMR within the secure flightline area, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 867564, 238219; 867679, 238124; 867451, 237847; 867335, 237946; and 867564, 238219. The area CS-14 proposed for



partial deletion includes all surface soils and structures within these coordinates.

CS-14 is a one-acre area associated with subsurface structures between Building 156 and Hangar 158. These structures received liquid waste such as solvents and petroleum products from these buildings.

#### Investigation and Feasibility Study Activities

CS-14 was identified in a records search as a site requiring additional investigation based on site history in 1986. Field investigations were conducted between 1989 and 1992, and additional groundwater samples were collected in 1999. Investigation activities included a soil gas survey, installation and multiple sampling of three groundwater wells, advancement of 12 Terraprobe borings and two test trenches, and soil sampling and analysis. Exploration locations were based on the findings of the records search and the observations of conditions.

Soil sampling and analysis was conducted during the completion of test pits, soil borings, and monitoring wells. There were no detections of surface or subsurface soil samples above action levels for VOCs, SVOCs, Pesticides, PCBs, and inorganics. Groundwater sampling also did not identify any actionable contamination as results were below action levels.

No feasibility study was conducted since response actions in the form of a CERCLA removal action were conducted as part of the basewide drainage structure removal program, and no human health or ecological risk was identified in a risk evaluation.

#### Characterization of Risk and Decision Document Findings

Due to the non-CERCLA response actions and the investigation findings of no risk, a No Further Action Decision Document was finalized in June 2000. No further risks are present at CS-14 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1996, the leaching pit area was removed in a CERCLA removal action as part of a basewide drainage structure removal program. The oil/water separator associated with Hangar 158 and the sand/gas trap associated with Building 156 was abandoned in 1989. The oil/water separator was decontaminated in place and filled with concrete. Building 156 continues to be used as an aircraft parts maintenance facility with wastes managed according

to the appropriate regulations. Hangar 158 continues to be used as an aircraft maintenance facility.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-15 (CS-15)

##### Site Location and History

CS-15, Former Run-up Area, is located on the southeast side of MMR, on Reilly Road, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 869859, 236971; 870462, 237541; 870880, 237294; 870809, 237171; 870285, 236746; 870193, 236734; 870112, 236759; and 869859, 236971. The area CS-15 proposed for partial deletion includes all surface soils within these coordinates.

CS-15 was used for jet engine testing from 1949 until 1985. This nine-acre site consisted for former Building 202, an outside testing stand, former Building 204, and enclosed testing stand, and the area surrounding these buildings.

#### Investigation and Feasibility Study Activities

CS-15 was identified in a records search as a site requiring additional investigation based on site history in 1986. Four field investigations were conducted between 1989 and 1995, and additional groundwater samples were collected in April 2000. Exploration locations were based on the findings of the records search and the observations of conditions. Three monitoring wells were installed.

Soil sampling and analysis was conducted during the completion of test pits, soil borings, and monitoring wells. There were no detections of surface or subsurface soil samples above action levels for VOCs, SVOCs, Pesticides, PCBs, and inorganics. Groundwater sampling also did not identify any actionable contamination.

No feasibility study was conducted since response actions in the form of a CERCLA removal actions were conducted as part of the basewide drainage structure removal program.

#### Characterization of Risk and Decision Document Findings

Due to the response actions conducted under the drainage structure removal program in 1996, a No Further Action Decision Document was finalized in December 2001. No further risks are present at CS-15 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1994, three hanging transformers west of Building 204 were removed when Buildings 202 and 204 were demolished. In 1996, a gasoline trap east of Building 204 was removed as part of a CERCLA removal action known as the basewide drainage structure removal program. During the removal of the gas trap, approximately 74 cubic yards of contaminated soil was removed and treated at an on-base asphalt batching facility. There are no remaining structures at CS-15.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-16/Chemical Spill-17/Drum Disposal Operable Unit (CS-16/CS-17/DDOU)

##### Site Location and History

CS-16/CS-17/DDOU is located in the southern section of the MMR, as shown in Figure 4. CS-16/CS-17 coordinates in Easting and Northing coordinates (NAD27) are: 859039, 234905; 860401, 235488; 861416, 235483; 861432, 235364; 862700, 234602; 862795, 234287; 862364, 233663; and 859039, 234905. The area CS-16/CS-17 proposed for partial deletion includes all surface soils and structures within these coordinates.

Drum Disposal Operable Unit (DDOU) is located in the southern section of the MMR within the boundaries of CS-16/CS-17, as shown in Figure 4, near the southeastern boundary. DDOU coordinates in Northing and Easting coordinates (NAD27) are: 862171, 244565; 862239, 234517; 862283, 234583; 862447, 234461; 862328, 234283; 862098, 234456; and 862171, 234565. The area DDOU proposed for partial deletion includes all surface soils within these coordinates.

CS-16/CS-17 is an 80-acre area which featured infiltration sand filter and sludge drying beds which are associated with a former, on-base sewage treatment plant which was decommissioned in 1997. Treated effluent from the treatment plant was discharged to these beds and contamination was suspected to have been caused by discharge of wastes from on-base operations. The former sewage treatment plant was replaced with an upgraded plant, and discharge effluent is piped off-site to new sand filter beds located near the Cape Cod Canal.

Drum Disposal Operable Unit (DDOU) was a one-acre area where a total of 11 drums were discovered during investigation activities at CS-16/CS-17.

#### Investigation and Feasibility Study Activities

CS-16/CS-17 was investigated several times beginning with a site investigation in 1987. This investigation included the collection of surface soil and sludge samples from the active, inactive and abandoned sludge drying beds, and the collection of groundwater samples. In 1990, another site investigation included eleven soil borings with installation of selected monitoring wells and 31 soil samples.

In the remedial investigation which was conducted in 1990 and 1994, CS-16/CS-17 was divided into seven areas for investigation: Active sand filter beds; inactive sand filter beds; abandoned sand filter beds; active sludge drying beds; inactive sludge drying beds; abandoned sludge drying beds; and former sewage sludge disposal area. Surface and subsurface soil sampling found that three of the seven areas contained contaminants which posed an ecological risk because of metals contamination.

A Feasibility Study was conducted to evaluate remedial action alternatives which ranged from no action to containment to excavation.

The DDOU was discovered in 1994 during remedial investigation activities as CS-16/CS-17. Based on the presences of drums, two surface soil samples were collected. A separate investigation was conducted and included 24 shallow soil borings and collection of soil samples for field screening of pesticides and confirmatory analysis, 4 deep soil borings as monitoring wells and groundwater samples, ten additional surface soil samples and groundwater sampling.

The investigation identified two areas containing DDT in high concentrations 3,600 mg/kg and 4.1 mg/kg in areas one and two, respectively. None of the four monitoring wells contained any detectable concentrations of pesticides. A risk evaluation summary concluded that site concentrations exceeded risk-based levels and a removal action was necessary.

An engineering evaluation/cost analysis for DDOU was conducted to evaluate removal action alternatives.

#### Characterization of Risk and Decision Document Findings

The Remedial Investigation Report for CS-16/CS-17 concluded that: Arochlor 1254; Dieldrin; Arsenic; chromium; Copper; lead; and Zinc posed an

ecological risk and impact to groundwater risk. A ROD was issued in May 1999.

The Site Inspection Report for DDOU concluded that: 2-Chlorophenol; 1,2,4-Trichlorobenzene; 2,4-Dinitrotoluene; pentachlorophenol; phenanthrene; 4,4'-DDD; 4,4'-DDE; 4,4'-DDT; Alpha-BHC; arsenic; chromium; lead; vanadium; and zinc posed a human health and ecological risk. A multi-site Action Memorandum with DDOU as one of the sites was issued in June 1999.

#### Response Actions and Cleanup Standards

In 1994, eleven drums were discovered and removed in a non-CERCLA action at DDOU. In 2002, approximately 213 cubic yards of contaminated soil was removed in a CERCLA removal action and transported off-site for incineration. The removal action cleanup standards were: 330 mg/kg for 2-Chlorophenol (ecological); 9,250 mg/kg for 1,2,4-Trichlorobenzene (human); 330 mg/kg for 2,4-Dinitrotoluene (human); 800 mg/kg for pentachlorophenol (human/ecological); 0.625 mg/kg for phenanthrene (ecological); 2.41 mg/kg for 4,4'-DDD (ecological); 0.227 mg/kg for 4,4'-DDE (ecological); 0.250 mg/kg for 4,4'-DDT (ecological); 0.203 mg/kg for Alpha-BHC (ecological); 7.1 mg/kg for arsenic (ecological); 19 mg/kg for chromium (ecological); 99 mg/kg for lead; 47 mg/kg for vanadium; and 68 mg/kg for zinc. The removal action for DDOU was documented in a removal action report which was issued in April 2004.

In 2001, excavation activities under the CERCLA action authorities were completed. A total of 4,000 cubic yards of contaminated soil was removed and transported off-site for disposal. The remedial action cleanup standards were: 1.00 mg/kg for Arochlor 1254 (ecological); 0.035 mg/kg for Dieldrin (ecological); 7.10 mg/kg for Arsenic (ecological); 19 mg/kg for chromium (ecological); 61 mg/kg for Copper (ecological); 99 mg/kg for lead (ecological); and 68 mg/kg for Zinc (ecological). The remedial action for CS-16/CS-17 was documented in a remedial action report which was issued in April 2003.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Chemical Spill-22 (CS-22)

##### Site Location and History

CS-22 is located in the northern section of the MMR, as shown in Figure

4. CS-22 coordinates in Easting and Northing coordinates (NAD27) are: 862327, 247882; 862853, 247110; 862794, 246747; 862334, 247011; 861977, 247666; 861907, 248078; and 862327, 247882. The area CS-22 proposed for partial deletion includes all surface soils within these coordinates.

CS-22 is a 13-acre area near the east-central portion of MMR which was a former sand and gravel pit.

#### Investigation and Feasibility Study Activities

A preliminary assessment was completed in 1999 and identified petroleum-contaminated soil requiring action. In spring 2000, a non-CERCLA removal action was conducted. The site was further investigated in 2001.

Seventeen additional surface soil and subsurface soil samples were collected at the area of the previous excavation as well as debris piles at the site. The site investigation and risk evaluation for human health and ecological risk concluded that a removal action was needed to address metals, petroleum and polynuclear-aromatic hydrocarbon contamination. Prior to the removal action, an additional 95 soil samples were collected at 47 locations.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

#### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that aluminum, arsenic, chromium, lead, selenium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, petroleum hydrocarbons, and tetrachloroethylene posed a human health and ecological risk, and impact to groundwater risk. An Action Memorandum documenting this non-time critical removal action was finalized in August 2002.

#### Response Actions and Cleanup Standards

In Spring 2000, approximately 418 tons of petroleum contaminated soil was removed in a non-CERCLA action and transported off-site for disposal. In 2002, approximately 440 cubic yards of contaminated soil was removed in a CERCLA removal action and transported off-site for disposal. The removal action cleanup standards were: 8,900 mg/kg for aluminum (ecological); 3.6 mg/kg for arsenic (human); 19 mg/kg for chromium (ecological); 99 mg/kg for lead (ecological); 1.0 mg/kg for selenium (ecological); 0.7 mg/kg for benzo(a)anthracene (human); 0.625 mg/kg

kg (0–2 ft bgs) and 0.7 mg/kg (2–15 ft bgs) for benzo(a)pyrene (human/ecological); 0.7 mg/kg for benzo(b)fluoranthene (human); 0.7 mg/kg for dibenz(a,h)anthracene (human); 0.7 mg/kg for Indeno(1,2,3,-c,d)pyrene (human); 200 mg/kg for total petroleum hydrocarbons (human/impact to groundwater) (Aliphatic—100 mg/kg for C<sub>5</sub>–C<sub>8</sub>; 1,000 mg/kg for C<sub>9</sub>–C<sub>12</sub>; 1,000 mg/kg for C<sub>13</sub>–C<sub>18</sub>; 2,500 mg/kg for C<sub>19</sub>–C<sub>36</sub>; and Aromatic—100 mg/kg for C<sub>9</sub>–C<sub>10</sub>; and 200 mg/kg for C<sub>11</sub>–C<sub>22</sub>); and 10 ug/kg for tetrachloroethylene (impact to groundwater). The removal action for CS–22 was documented in a removal action report which was issued in July 2003.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-2 (FS–2)

##### Site Location and History

FS–2 is a seven-acre area located in the Cantonment area of the MMR near its southern boundary, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 856255, 237383; 857124, 237257; 857125, 236889; 857250, 237016; and 856255, 237383. The area FS–2 proposed for partial deletion includes all surface soils within these coordinates.

FS–2 was originally used for unloading and distributing jet fuel and aviation gasoline. The area contains one main-line railroad track and several rail sidings. Before decommissioning, the site contained a petroleum unloading rack, a pump house and associated underground piping. The unloading facility was taken out of service in 1965.

#### Investigation and Feasibility Study Activities

FS–2 was first investigated in 1985 with the excavation of 18 test pits and installation of two monitoring wells. A soil gas survey and soil sampling at two test pits and four soil borings were completed in 1989. One monitoring well was installed in each of the four borings.

Based on the investigations which were conducted in 1985 and 1989, an RI Report which was issued in 1991 recommended removing contaminated soil since historical fuel spills had caused near-surface soil stains and contributed to the petroleum contamination of shallow soil near the pump house and a monitoring well. A supplemental RI was carried out in April 2000 to investigate the extent of any remaining petroleum contamination

in the surface and subsurface soil since a non-CERCLA removal action was conducted in 1996. Petroleum-related semivolatile organic compounds and metals were detected in soil and groundwater samples. However, the concentrations were below action levels, and did not pose a human health or ecological risk.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions were conducted and the supplemental RI concluded that there were no risks.

#### Characterization of Risk and Decision Document Findings

Due to the response action and the supplemental remedial investigation which concluded that there were no site risks, a No Further Action Record of Decision was finalized in February 2002.

No further risks are present at FS–2 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1992, the header piping which was part of the fuel distribution system was removed. In 1996, approximately 520 tons of soil was removed in a non-CERCLA action, and treated at an on-base low-temperature thermal treatment system.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-4 (FS–4)

##### Site Location and History

FS–4 is located in the Cantonment area of the MMR near its southern boundary, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 865858, 238266; 866000, 238149; 865712, 237788; 865665, 237768; 865601, 237779; 865481, 237925; and 865858, 238266. The area FS–4 proposed for partial deletion includes all surface soils within these coordinates.

FS–4 is a two-acre area around the former Building 178 and a fuel pumphouse with five underground storage tanks which were located on the base airfield. From the late 1950s until the early 1970s, aviation gasoline was pumped to the pumphouse and the tanks from an area known as the Petroleum Fuels Storage Area.

#### Investigation and Feasibility Study Activities

FS–4 was first evaluated as part of a records search in 1985. The records search identified the presence of underground storage tanks. In October 1993, a site investigation was conducted which included two monitoring wells, one soil boring, and 30 soil gas samples. Although this report recommended no further action, residual fuel contamination was identified beneath several USTs based on qualitative photoionization detector results following the removal and upgrade of the fuel systems at FS–4 in 1994.

An engineering evaluation/cost analysis was conducted and alternatives included sampling and subsurface treatment of contaminated soils by biosparging/soil vapor extraction.

#### Characterization of Risk and Decision Document Findings

A multi-site Action Memorandum with FS–4 as one of the sites was finalized in 1999 and selected subsurface soil sampling to determine if biosparging/soil vapor extraction was needed to address risks from contaminants leaching to groundwater. During remedial design, soil sampling results demonstrated that concentrations of petroleum hydrocarbons, benzene, toluene, ethylbenzene and xylenes were below cleanup levels, and installation of the treatment system was unnecessary. No further risks are present at FS–4 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1993, as part of the Fuel Systems Upgrade program, the five underground storage tanks along with a 25,000 gallon underground storage tank were removed in a non-CERCLA action.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-7 (FS–7)

##### Site Location and History

Fuel Spill-7 (FS–7) is located in the Cantonment section of the MMR, as shown in Figure 4, within the footprint of the CS–10 groundwater plume. FS–7 coordinates in Easting and Northing coordinates (NAD27) are: 860315, 243139; 860098, 243122; 860089, 243224; 860287, 243236; and 860315, 243139. The area FS–7 proposed for partial deletion includes all surface soils within these coordinates.

FS-7 consisted of a half-acre area in the vicinity of the former Building 1820. A 500-gallon underground storage tank was installed in 1970 to store No. 2 fuel oil.

#### Investigation and Feasibility Study Activities

A site investigation was completed in 1993. Investigation activities included: soil gas samples; surface and subsurface soil samples; and installation of one monitoring well. The site investigation concluded that surface soil was impacted by polynuclear aromatic hydrocarbons.

A follow-up investigation was conducted in 1995. Investigation activities included: test pitting; soil sampling from test pit and surface soil; installation of two soil borings for monitoring wells; and groundwater samples. This investigation confirmed the polynuclear aromatic hydrocarbon contamination and concluded that detections in groundwater were from another nearby site.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

#### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that Benzo(a)anthracene, Benzo(b)anthracene, Benzo(k)anthracene, Benzo(k)anthracene, Benzo(g,h,i)anthracene, Benzo(a)pyrene, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, and Phenanthrene posed a human health and ecological risk. A multi-site Action Memorandum with FS-7 as one of the sites was issued in 1999.

#### Response Actions and Cleanup Standards

In 1985, a 500-gallon underground storage tank was removed in a non-CERCLA action. In April 2001, approximately 18 cubic yards of contaminated soil was excavated in a CERCLA removal action and transported for off-site disposal. The removal action cleanup standards were: 5 mg/kg for Benzo(a)anthracene; 5 mg/kg for Benzo(b)anthracene; 5 mg/kg for Benzo(k)anthracene; 5 mg/kg for Benzo(k)anthracene; 5 mg/kg for Benzo(g,h,i)anthracene; 5 mg/kg for Benzo(a)pyrene; 0.625 mg/kg for Chrysene; 5 mg/kg for Dibenzo(a,h)anthracene; 7.81 mg/kg for Fluoranthene; 5 mg/kg for Indeno(1,2,3-c,d)pyrene; and 0.625 mg/kg for Phenanthrene. The removal action for FS-7 was documented in a removal

action report which was issued in April 2004.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-9 (FS-9)

##### Site Location and History

Fuel Spill-9 (FS-9) is located in the south central portion of the MMR, as shown in Figure 4, within the footprint of the CS-10 groundwater plume. FS-9 coordinates in Easting and Northing coordinates (NAD27) are: 858342, 241473; 858076, 240908; 857678, 241088; 857748, 241225; 858005, 241279; 858146, 241586; and 858342, 241473. The area FS-9 proposed for partial deletion includes all surface soils and structures within these coordinates.

FS-9 is a four-acre area consisting of a motor pool which operated from 1941 until 1986 and an undeveloped vegetated portion.

#### Investigation and Feasibility Study Activities

The site was initially investigated in 1992. In 1998, a remedial investigation was completed over five areas at FS-9: the motor pool and fueling island and underground storage tanks; the leaching wells and catch basins; the waste disposal area; the drainage ditch/swale area; and the pond/wet area. Total petroleum hydrocarbons and several metals, chromium, lead, vanadium and zinc, were identified as the contaminants of concern posing human health and ecological risks.

A Feasibility Study evaluated alternatives which ranged from no action to excavation with soil treatment and disposal options.

#### Characterization of Risk and Decision Document Findings

The Remedial Investigation Report concluded that total petroleum hydrocarbons, chromium, lead, vanadium, and zinc posed human health and ecological risks, and a threat to leaching to groundwater. A Record of Decision was finalized in June 1999.

#### Response Actions and Cleanup Standards

In 1994, three underground storage tanks and associated contaminated soil were removed in a non-CERCLA action as part of the Fuel Systems Upgrade Program. In 1996, waste disposal leaching wells and a catch basin were removed in a CERCLA removal action as part of a basewide drainage structure removal program. The leaching well

adjacent to Building 1369 was abandoned in place due to structural concerns relative to the building. In 2001, approximately 125 cubic yards of contaminated soil was excavated and transported off-site for disposal which implemented the selected remedy in the Record of Decision. The remedial action cleanup standards were: 19 mg/kg for chromium (ecological); 300 mg/kg for lead (human); 47 mg/kg for vanadium (ecological); 68 mg/kg for zinc (ecological); and petroleum hydrocarbons (impact to groundwater) (Aliphatic—100 mg/kg for C<sub>5</sub>–C<sub>8</sub>; 1,000 mg/kg for C<sub>9</sub>–C<sub>12</sub>; 1,000 mg/kg for C<sub>13</sub>–C<sub>18</sub>; 2,500 mg/kg for C<sub>19</sub>–C<sub>36</sub>; and Aromatic—100 mg/kg for C<sub>9</sub>–C<sub>10</sub>; and 200 mg/kg for C<sub>11</sub>–C<sub>22</sub>).

Sampling during remedial design determined that a contingency remedy for a soil vapor extraction system was not necessary. The remedial action for FS-9 was documented in a remedial action report which was issued in September 2002.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-13 (FS-13)

##### Site Location and History

Fuel Spill-13 (FS-13) is known as the Underground Fuel Line Cantonment and is located in the central portion of the MMR within the footprint of the CS-10 groundwater plume as shown in Figure 4. FS-13 coordinates in Easting and Northing coordinates (NAD27) are: 860489, 244233; 861055, 243973; 860571, 242911; 860391, 243006; 860283, 243360; 860352, 243494; 860343, 243638; 860260, 243718; and 860489, 244233. The area FS-13 proposed for partial deletion includes all surface soils within these coordinates.

FS-13 is a 13-acre open area bounded by several roads near the main rotary on base. A small portion of the site, east of the pipeline and south of North Truck Road extends into the restricted flightline operations area. A fuel spill was reported in 1972. Approximately 2,000 gallons of JP-4 jet fuel were observed at the ground surface during an inspection.

#### Investigation and Feasibility Study Activities

The site inspection was first conducted in 1996. Investigation activities included: a soil gas survey; trench excavation and soil sampling; soil boring completion and sampling; and monitoring well installation and

sampling. Dieldrin and several metals were detected which led to the need for additional investigations.

A supplemental site inspection was conducted in 2004. Investigation activities concentrated on previous detections in the subsurface. Ten soil borings were advanced and subsurface soil samples were collected for analysis. Later that year, additional soil samples were collected. In April 2005, a test pit was excavated to assess the mobility of metals and pesticides.

Risks to human health and the environment, and risk of soil contaminants leaching to groundwater were evaluated with the remaining site data. The Supplemental Site Inspection Report concluded that contaminants detected above screening levels did not pose a risk because they were at background concentrations or were infrequently detected.

No feasibility study was conducted since the Supplemental Site Inspection Report concluded that the site pose risk to human health, environment or groundwater.

#### Characterization of Risk and Decision Document Findings

The Supplemental Site Inspection Report concluded that did not pose a human health and ecological risks, and a threat to leaching to groundwater. A No Further Action Decision Document was finalized in September 2006.

#### Response Actions and Cleanup Standards

In 1972, a non-CERCLA removal action was conducted to remove contamination from a spill of 2,000 gallons of JP-4 jet fuel from a pipeline. In April 2005, approximately 14 tons of soil was removed from a test pit in a non-CERCLA removal action.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-14 (FS-14)

##### Site Location and History

FS-14 is located in the northern portion of the MMR as shown in Figure 3. Its coordinates in Easting and Northing coordinates (NAD27) are: 866044, 270557; 866268, 270558; 866267, 270300; 866047, 270299; and 866044, 270557. The area FS-14 proposed for partial deletion includes all surface soils within these coordinates.

FS-14 is a one-acre site where a motor vehicle gasoline fuel spill of

approximately 500 gallons occurred in 1985.

#### Investigation and Feasibility Study Activities

The site was investigated in 1995 to evaluate any remaining contamination from the fuel spill. Surface and subsurface soil and groundwater samples from four newly installed monitoring wells were collected. An additional round of groundwater samples was collected in 1999, and it was determined that the site did not require any further action.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions were conducted and the investigations concluded that the site did not pose a risk to human health or the environment.

#### Characterization of Risk and Decision Document Findings

The risk assessment concluded no significant risk to human health and environment. A No Further Action Decision Document was finalized in April 2000. No further risks are present at FS-14 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1985, thirty cubic yards of contaminated soil was removed in a non-CERCLA action immediately following a release of approximately 500 gallons of fuel.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-17 (FS-17)

##### Site Location and History

FS-17 was a three and a half-acre site which is located west of the former main base landfill in the south-central portion of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 855913, 246894; 856532, 246671; 856441, 246447; 855816, 246677; and 855913, 246894. The area FS-17 proposed for partial deletion includes all surface soils within these coordinates.

FS-17 was a motor pool and vehicle maintenance facility which operated from World War II to 1946.

#### Investigation and Feasibility Study Activities

FS-17 was investigated in several phases from 1993 through 1998 through

investigations and post-excavation sampling events. Surface and subsurface soil samples and groundwater samples from monitoring wells were collected based on the site's history. Data collected during the various investigative and removal activities indicated that minimal to no contamination for surface and subsurface soil, and groundwater, and that the response actions were complete.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions were conducted and the RI concluded that there were no risks to human health and the environment.

#### Characterization of Risk and Decision Document Findings

Due to the response actions and the remedial investigation which concluded that there were no site risks, a No Further Action Record of Decision was finalized in December 1999. No further risks are present at FS-17 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1994, two underground storage tanks and a fuel pump island were removed in a non-CERCLA action. In 1996, a French drain, leaching well, dry well, vehicle maintenance bays and foundations for two buildings were removed in a CERCLA removal action as part of a basewide drainage structural removal program.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-18 (FS-18)

##### Site Location and History

Fuel Spill-18 (FS-18) is located in the south central section of the MMR, as shown in Figure 4, within the footprint of the CS-10 groundwater plume. FS-18 coordinates in Easting and Northing coordinates (NAD27) are: 857962, 244410; 859015, 243956; 859046, 243818; 858901, 243531; 858764, 243519; 858706, 243549; 858577, 243379; 858373, 243484; 858511, 243672; 857676, 244076; and 857962, 244410. The area FS-18 proposed for partial deletion includes all surface soils and structures within these coordinates.

FS-18 is a 14-acre site of a former motor pool and fuel transfer station. Four underground storage tanks were installed in 1941, two of which contained diesel fuel and the other two contained motor vehicle gasoline. Three

motor pool vehicle maintenance buildings were associated with FS-18.

#### Investigation and Feasibility Study Activities

Investigations were conducted in 1993 and 1995. The Phase I site investigation activities included installation and sampling of three monitoring wells and 45 soil gas samples. A total of six surface soil and three subsurface soil samples and three rounds of groundwater samples were collected in all investigation phases.

The soil investigation and sampling focused on three areas; the drainage course south of the study area and east of South Gaffney Street, a topographic depression west of the study area, and the area around the two former fuel islands and leaching wells.

The site investigation and risk evaluation for human health and ecological risk, and risk to groundwater from leaching of soil contaminants concluded that a removal action was needed to address petroleum hydrocarbon contamination in the topographical depression and the drainage swale.

An engineering evaluation/cost analysis was conducted to evaluate removal action alternatives.

#### Characterization of Risk and Decision Document Findings

The Site Inspection Report concluded that Total Petroleum Hydrocarbons posed a risk to groundwater from the leaching of contaminants from soil. A multi-site Action Memorandum with FS-18 as one of the sites was issued in 1999.

#### Response Actions and Cleanup Standards

In 1985, two of the four underground storage tanks were removed in a non-CERCLA action. In 1990, the buildings at FS-18 were demolished. In August 1994, the other two underground storage tanks were removed in a non-CERCLA action. In 1996 as part of a basewide drainage structure removal program, a total on nine drainage structures and approximately 430 cubic yards of contaminated soil were removed in a CERCLA removal action. Removal design sampling activities were conducted in 2001 and did not identify any contamination above cleanup levels, so a removal action was not conducted. The removal action cleanup standards for petroleum hydrocarbons (impact to groundwater) were: 100 mg/kg for C<sub>5</sub>-C<sub>8</sub>; 1,000 mg/kg for C<sub>9</sub>-C<sub>12</sub>; 1,000 mg/kg for C<sub>13</sub>-C<sub>18</sub>; 2,500 mg/kg for C<sub>19</sub>-C<sub>36</sub> for Aliphatic hydrocarbons; 100 mg/kg for C<sub>9</sub>-C<sub>10</sub>; and 200 mg/kg for

C<sub>11</sub>-C<sub>22</sub> for Aromatic hydrocarbons. A removal action report which documented the additional soil sampling activities and no further action at FS-18 was issued in April 2004.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-19 (FS-19)

##### Site Location and History

FS-19 was a two-acre site which is located in the south-central portion of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 856829, 241507; 856934, 241444; 856734, 241142; 856624, 241206; and 856829, 241507. The area FS-19 proposed for partial deletion includes all surface soils within these coordinates.

FS-19 is a one-acre former motor gas fuel storage and transfer point which began operations in 1941 when six 10,000-gallon underground storage tanks were installed and used to store motor gas until 1958. Between the years 1958 to 1965, the six underground storage tanks were used to store hazardous wastes.

#### Investigation and Feasibility Study Activities

FS-19 was investigated in several phases from 1989 through 1998 through investigations and post-excavation sampling events. Surface and subsurface soil samples and groundwater samples from monitoring wells were collected based on the site's history. Data collected during the various investigative and removal activities indicated that minimal to no contamination for surface and subsurface soil, and groundwater, and that the response actions were complete.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions were conducted and the RI concluded that there were no risks to human health and the environment.

#### Characterization of Risk and Decision Document Findings

Due to the response actions and the remedial investigation which concluded that there were no site risks, a No Further Action Record of Decision was finalized in December 1999. No further risks are present at FS-19 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1989, six underground storage tanks were removed in a non-CERCLA action. In 1996, a drainage structure and contaminated soil were removed in a CERCLA removal action as part of a basewide drainage structural removal program.

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Fuel Spill-20 (FS-20)

##### Site Location and History

FS-20, former Current Product Tank (CPT) No. 88, is located in the Cantonment Area of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 862957, 241292; 863022, 241435; 863119, 241393; 863052, 241251; and 862957, 241292. The area FS-20 proposed for partial deletion includes all surface soils and structures within these coordinates.

FS-20 is a half-acre area which featured former Current Product Tank No. 88 which was a 12,500 gallon underground storage tank that was removed in 1996.

#### Investigation and Feasibility Study Activities

A Phase I Records Search was completed in December 1986. In 1987, the site investigation activities included one test pit and installation of one groundwater monitoring well downgradient of the tank. Analytical results indicated no contamination of soil or groundwater. Investigation concluded that there was no significant potential for contamination and that the site did not pose a risk.

No feasibility study was conducted since the site investigation concluded that the site did not impact the soil and groundwater.

#### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in July 1991. No risks are present at FS-20 and no institutional controls are present.

#### Response Actions and Cleanup Standards

In 1996, the 12,500 gallon underground storage tank was removed in a non-CERCLA action.

**Operation and Maintenance & Five-Year Review**

No operation and maintenance or Five-Year Reviews are required for this site.

**Fuel Spill-23 (FS-23)****Site Location and History**

FS-23, South Truck Road Fuel Spill, is located in the southern portion of the MMR, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 861731, 237487; 861881, 237420; 861807, 237237; 861652, 237308; and 861731, 237121. The area FS-23 proposed for partial deletion includes all surface soils within these coordinates.

FS-23 is a less than one-acre area in which a fuel spill occurred in 1965 when JP-4 leaked onto the ground from a fuel line clean-out valve.

**Investigation and Feasibility Study Activities**

Following a preliminary assessment in 1986, FS-23 was investigated and characterized during two site inspections in 1988 and 1989, and a groundwater sampling program in 1999.

Investigation activities included: a soil gas survey; excavation of test pits; installation of test boring and monitoring wells; and soil and groundwater sampling and analysis.

Soil and groundwater sampling detected minimal contamination. Results of the human health and ecological risk assessments suggest that unacceptable levels of risk are not anticipated.

No feasibility study was conducted since response actions in the form of non-CERCLA removal actions were conducted and the investigations concluded that the site did not pose a risk to human health or the environment.

**Characterization of Risk and Decision Document Findings**

The risk assessment concluded no significant risk to human health and environment. A No Further Action Decision Document was finalized in June 2000. No further risks are present at FS-23 and no institutional controls are present.

**Response Actions and Cleanup Standards**

During the Fuel System Upgrade Program in 1993, two underground 10-inch fuel lines were removed in a non-CERCLA action.

**Operation and Maintenance & Five-Year Review**

No operation and maintenance or Five-Year Reviews are required for this site.

**Fuel Spill-25 (FS-25)****Site Location and History**

FS-25 is located on the southeast portion of the MMR as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 866837, 237121; 867004, 237329; 867148, 237217; 866979, 237006; and 866837, 237121. The area FS-25 proposed for partial deletion includes all surface soils and structures within these coordinates.

FS-25 covers approximately one-acre and is located immediately northeast of Building 167. In 1989, petroleum-stained soil was discovered during the construction of a parking lot and 2,000 cubic yards was excavated. The history and cause of the contamination was unknown although the area was reported to have been used for heavy equipment maintenance which may have had spills and releases.

**Investigation and Feasibility Study Activities**

Investigation of the petroleum-stained soil began with excavation of test pits, completion of soil borings, and soil sampling of the investigation areas in December 1989. With the exception of a small portion of the soil from the excavation, soil data indicated that most of typical fuel compounds have degraded and there was no subsurface soil contamination requiring action.

No feasibility study was developed since investigation activities did not identify any contamination in the subsurface.

**Characterization of Risk and Decision Document Findings**

Based on sampling results and low-temperature thermal treatment of non-backfilled soil, a No Further Action Decision Document was finalized in June 1997. No further risks are present at FS-25 and no institutional controls are present.

**Response Actions and Cleanup Standards**

In November 1989, approximately 2,000 cubic yards of contaminated soil was removed in a non-CERCLA action and stockpiled on a taxiway of the airfield. In 1996, the stockpiled soil was sampled to determine remaining petroleum hydrocarbon concentrations and to evaluate disposal/reuse options. A majority of this soil was used as

backfill, but 88 cubic yards was treated in a low-temperature thermal desorption system which was on-site treating contaminated soil from other projects. A cleanup standard of 1,235 parts per million for total petroleum hydrocarbons was selected.

**Operation and Maintenance & Five-Year Review**

No operation and maintenance or Five-Year Reviews are required for this site.

**Fuel Spill-26 (U.S. Coast Guard) (FS-26 (CG))****Site Location and History**

FS-26 (CG) is located at the intersection of two unnamed paved roads at the southwesterly end of Building 3444 which is a U.S. Coast Guard warehouse, as shown in Figure 4. Its coordinates in Easting and Northing coordinates (NAD27) are: 856353, 242055; 856407, 242129; 856499, 242071; 856449, 241997; and 856353, 242055. The area FS-26 (CG) proposed for partial deletion includes all surface soils within these coordinates.

FS-26 (CG) is a less than one-acre former location of a 3,000-gallon underground storage tank which contained No. 2 heating oil and was installed in the early 1950s near Building 3444.

**Investigation and Feasibility Study Activities**

A soil boring was advanced in the backfilled UST excavation area to assess subsurface contamination. No contamination was detected in these samples. Groundwater samples from a nearby monitoring well also did not detect any site contamination.

No feasibility study was developed since investigation activities did not identify any contamination which remained from the UST removal.

**Characterization of Risk and Decision Document Findings**

A No Further Action Decision Document was finalized in July 1997. No further risks are present at FS-26 (CG) and no institutional controls are present.

**Response Actions and Cleanup Standards**

In 1990, a 3,000 gallon underground storage tank and 70 cubic yards of contaminated soil was removed under non-CERCLA authority (*i.e.*, no Action Memorandum was issued). No structures are present at FS-26 (CG).



#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Landfill-4 (LF-4)

##### Site Location and History

LF-4 is located outside the eastern border of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 867744, 235225; 867650, 234793; 867382, 234858; 867302, 234920; 867295, 235037; 867351, 235121; 867416, 235321; 867491, 235357; and 867744, 235225. The area LF-4 proposed for partial deletion includes all surface soils within these coordinates.

LF-4 is a four-acre, former borrow pit which became an illegal dumping ground because it was located outside the border of the MMR. Although the property is currently owned by the town of Mashpee, it is under the control of the Air Force which obtained a limited easement to this property in 1960 to ensure safe operation at the airfield and to create a clear safety zone for the Otis Air National Guard Base Ammunition Storage Area.

##### Investigation and Feasibility Study Activities

Following the non-CERCLA removal action, a site investigation was conducted in 1999. The investigation activities included collection and analysis of surface and subsurface soil samples, review of existing groundwater data, collection of two groundwater samples, and a risk evaluation. All sampling results were below action levels.

The sampling results and an evaluation of potential risks to human health and environment demonstrated that the site did not pose a threat or require no action.

No feasibility study was developed since investigation activities after the removal action did not identify any contamination which could have been caused by the former landfill.

##### Characterization of Risk and Decision Document Findings

A No Further Action Decision Document was finalized in November 2000. No further risks are present at LF-4 and no institutional controls are present.

##### Response Actions and Cleanup Standards

In June 1998, the town and the Massachusetts Army National Guard

conducted non-CERCLA removal actions under a DEP Administrative Consent Order. Approximately 950 cubic yards of solid waste were removed. No release of any hazardous substances was observed. In the removal, a 55-gallon drum containing five gallons of petroleum product was discovered and removed.

##### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Storm Drain-2/Fuel Spill-6/Fuel Spill-8 (SD-2/FS-6/FS-8)

##### Site Location and History

SD-2/FS-6/FS-8 is located on the southern boundary of the MMR, as shown in Figure 5. Its coordinates in Easting and Northing coordinates (NAD27) are: 865636, 236155; 865932, 236045; 865653, 235179; 865140, 234242; 864849, 233949; 864760, 234141; 864949, 234459; 865265, 235096; and 865636, 236155. The area SD-2/FS-6/FS-8 proposed for partial deletion includes all surface soils within these coordinates.

SD-2/FS-6/FS-8 is a 15.6-acre area consisting of a storm drainage ditch which extends south-southwest from the southern boundary of the MMR towards Ashumet Pond. SD-2/FS-6/FS-8 received storm water discharge from the MMR runway/aircraft maintenance ramp storm sewer system from 1950 through 2001. FS-6 and FS-8 are related to SD-2 because they were two aviation gasoline fuel spills which occurred on the aircraft maintenance ramp and were reportedly washed directly to the storm sewer eventually making its way into the SD-2 ditch. There are reports of other releases into SD-2 of fuel and solvents which were used in the various maintenance shops. In 1968, an oil-water separator was constructed at the storm sewer outfall to intercept fuels from the aircraft maintenance ramp.

##### Investigation and Feasibility Study Activities

An initial investigation was conducted in 1988 with installation of two monitoring wells and collection of six sediment samples from the storm drainage ditch. In 1989, a remedial investigation expanded the investigation with additional groundwater and sediment samples. In 1993, a supplemental remedial investigation was conducted and included the collection of additional sediment samples.

The risk assessment in the remedial investigation identified an ecological risk due to inorganics, specifically chromium, lead, and zinc.

A feasibility study was developed and evaluated soil alternatives which were: no action; excavation and asphalt batching; and excavation and off-site treatment and disposal.

##### Characterization of Risk and Decision Document Findings

A multi-site Record of Decision which included SD-2/FS-6/FS-8 was finalized in September 1998 and selected excavation and asphalt batching as the remedy. Remedial action was required to address ecological risks. An Explanation of Significant Differences was issued in January 2003 and contained adjustments to the cleanup levels and allowed off-site disposal instead of asphalt batching which was deemed too expensive during remedial design and action.

##### Response Actions and Cleanup Standards

In 1996, approximately 480 cubic yards of contaminated soil from an adjacent site called the Petroleum Fuel Storage Area and approximately 120 cubic yards of fuel contaminated soil from SD-2 were removed in a non-CERCLA action. In 2002, approximately 350 cubic yards of contaminated soil was removed and transported off-site for disposal implementing the selected remedy in the ROD. The contaminants of concern and their cleanup levels were: chromium—19 mg/kg (ecological risk); lead—99 mg/kg (ecological risk); zinc—68 mg/kg (ecological risk). A remedial action report for SD-2/FS-6/FS-8 was issued in June 2004 and documents the completion of the selected remedy.

##### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### Storm Drain-3/Fire Training Area-3/Coal Yard-4 (SD-3/FTA-3/CY-4)

##### Site Location and History

SD-3/FTA-3/CY-4, is located in the southeastern corner of the MMR, as shown in Figure 5. SD-3 is composed of two parcels with the following Easting and Northing coordinates (NAD27) are: 867639, 236299; 867578, 236374; 867517, 236575; 867552, 236584; 867608, 236407; 867671, 236361; 867700, 236416; 867685, 236625; 867738, 236636; 867766, 236477; 867732, 236411; 867696, 236258; 867668, 236157; 867628, 236156; and

867639, 236299 for parcel A; and 868617, 236384; 868714, 236345; 868959, 236314; 868916, 236228; 868664, 236279; 868568, 236314; and 868617, 236384 for parcel B. FTA-3 is composed of the following Easting and Northing coordinates (NAD27) are: 867475, 235823; 867478, 235658; 867369, 235537; 867188, 235535; 867077, 235645; 867079, 235808; 867184, 235927; 867369, 235930; and 867475, 235823. CY-4 is composed of the following Easting and Northing coordinates (NAD27): 866878, 236000; 867230, 236439; 867144, 236510; 867471, 236945; 867708, 237077; 867754, 236551; 867693, 236192; 867545, 235935; 867611, 235687; 867063, 235857; and 866878, 236000. The area SD-3/FTA-3/CY-4 proposed for partial deletion includes all surface soils within these coordinates.

SD-3/FTA-3/CY-4 is a 19-acre area located in a moderately industrialized area on the eastern side of the runways. The SD-3 stormwater drainage ditch receives runoff from several areas which include the eastern edge of the aircraft maintenance ramp, a former Central Heating Plant, and associated stockpiles of coal and surficial coal ash. FTA-3 was used for fire training activities between 1956 and 1958 and then as a disposal area of construction debris and coal ash after construction of the Central Heating Plant. CY-4 is located 400 feet south of the Central Heating Plant and had coal stockpiled directly on the ground from 1955 to 1978. Coal ash was disposed on the ground surface south of the coal pile. Surficial drainage from the stockpile and ash disposal area flowed toward and into SD-3.

#### Investigation and Feasibility Study Activities

Initial investigation occurred in 1987 which was followed-up with a remedial investigation that was conducted over three phases from 1989, 1990, and 1993. The remedial investigation identified risk which was due to phenanthrene, chrysene, arsenic, chromium, lead, vanadium, and zinc.

An initial investigation was conducted in 1988 with installation of two monitoring wells and collection of six sediment samples from the storm drainage ditch. In 1989, a remedial investigation expanded the investigation with additional groundwater and sediment samples. In 1993, a supplemental remedial investigation was conducted and included the collection of additional sediment samples.

The risk assessment in the remedial investigation identified an ecological

risk due to inorganics, specifically chromium, lead, and zinc.

A feasibility study was developed and evaluated soil alternatives which were: no action; excavation and asphalt batching; and excavation and off-site treatment and disposal.

#### Characterization of Risk and Decision Document Findings

A multi-site Record of Decision which included SD-3/FTA-3/CY-4 was finalized in September 1998 and selected excavation and asphalt batching as the remedy. Remedial action was required to address ecological risks. An Explanation of Significant Differences was issued in January 2003 and contained adjustments to the cleanup levels and allowed off-site disposal instead of asphalt batching which was deemed too expensive during remedial design and action.

#### Response Actions and Cleanup Standards

From February to April 1994, approximately 42,000 cubic yards of coal, coal ash, and contaminated soil from FTA-3 and CY-4 were excavated and used as subgrade fill for the landfill capping of Landfill No. 1, another site on MMR. In 2001, approximately 1,065 cubic yards of contaminated soil was excavated and transported off-site for disposal implementing the selected remedy in the ROD. A remedial action report for SD-3/FTA-3/CY-4 was finalized in August 2004 and documents the completion of the remedy. The contaminants of concern and their cleanup levels were: chromium—19 mg/kg (ecological risk); lead—99 mg/kg (ecological risk); zinc—68 mg/kg (ecological risk).

#### Operation and Maintenance & Five-Year Review

No operation and maintenance or Five-Year Reviews are required for this site.

#### B. Community Involvement

Community input has been sought by the Air Force throughout the MMR investigation and cleanup process. Community relations activities that have occurred include: monthly meetings of the Plume Cleanup Team which is a group composed of agency representatives and citizens who live near MMR; 30-day public comment periods for decision documents; public meetings/hearings for the issuance of Proposed Plans, and information meetings for neighborhoods that are affected by off-site plume migration and/or off-site construction; issuance of new releases, fact sheets, and annual

reports; and operation and maintenance of a Web site specifically for MMR (<http://www.mmr.org>).

A copy of the Deletion Docket can be reviewed several ways. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available only in hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the EPA's New England Region Superfund Records Center, One Congress Street, Suite 1100, Boston, MA 02114 and the Information Repositories at AFCEE/IRP Office at Building 322 on MMR, by appointment only Monday through Friday 8 a.m. to 5 p.m., (508) 968-4670 ext 1, and the Information Repositories in the Towns of Bourne, Falmouth, Sandwich, and Mashpee. The Deletion Docket includes this document, supporting appendices containing tables and figures, No Further Action Decision Documents, Records of Decision, Removal Action Reports, Remedial Action Reports, and correspondence documenting that no further remedial actions are necessary at the sites.

Public participation activities have been satisfied as required in CERCLA Section 113(k), 42 U.S.C. 9613(k), and CERCLA Section 117, 42 U.S.C. 9617. Documents in the deletion docket on which EPA relied for recommendation of the deletion from the NPL are available to the public in the information repository noted above or online at <http://www.regulations.gov>.

Community involvement for the sites that are the subject of this document has occurred by soliciting public comment on various documents depending on the individual site's investigation and cleanup (if needed) process. All No Further Action Decision Documents were issued for 30-day public comment periods. For those sites where Records of Decision were finalized, Proposed Plans were issued for 30-day public comment periods with comments, if any, addressed in the Responsiveness Summary of the Record of Decision. In addition, sites where non-time critical removal actions occurred provided public involvement with the issuance of the engineering evaluation/cost analysis for public comment.

Since there are a number of ongoing investigations and cleanup at MMR, community involvement activities such as monthly Plume Cleanup Team

meetings will continue to occur. Other activities such as neighborhood meetings, updates to the MMR Web site, and issuance of news releases will occur as needed.

#### C. Current Status

One of the three criteria for site deletion specifies that EPA may delete a site (or a portion of a site) from the NPL if "responsible parties or other parties have implemented all appropriate response actions required." EPA believes that this criterion has been met for this partial deletion. In a letter the Commonwealth of Massachusetts provided their concurrence on the proposed deletion of the sites in this

notice. A copy of this letter is available for review in the Information Repository as part of the Deletion Docket. EPA with concurrence from the Commonwealth of Massachusetts has determined that all appropriate CERCLA response actions have been completed at the sites in this notice and protection of human health and the environment has been achieved in these sites. Therefore, EPA makes this proposal to delete only the sites in Table 1 of the MMR Superfund Site from the NPL.

Based on the successful completion of removal actions and the extensive investigations and risk assessments performed, there are no further response actions planned or scheduled for these

sites. Pursuant to the NCP, a five-year review will not need to be performed at all of the sites in this notice.

While EPA does not believe that any future response actions at any of the sites in this notice will be needed, if future conditions warrant such action, the proposed deletion sites of the MMR Site remain eligible for future Fund-financed response actions. Furthermore, this partial deletion does not alter the status of all the remaining sites and groundwater plumes of the MMR Site which are not proposed for partial deletion and remain on the NPL.

Dated: July 23, 2007.

**Robert W. Varney,**  
Regional Administrator, EPA New England.

TABLE 1.—LIST OF PROPOSED SITES FOR PARTIAL DELETION

CS-1*	CS-12*	FS-17
CS-1 (CG)*	CS-14*	FS-18*
CS-2	CS-15	FS-19
CS-2 (CG)*	CS-16/CS-17/DDOU*	FS-20*
CS-3*	CS-22	FS-23
CS-3 (CG)*	CY-1*	FS-25*
CS-4*	CY-3	FS-26(CG)
CS-4 (CG)/FS-1 (CG)*	FS-2	FS-27
CS-5*	FS-2 (CG)	LF-1 (CG)
CS-5 (CG)*	FS-3*	LF-2 (CG)
CS-6*/FS-22	FS-4	LF-3
CS-6 (CG)*	FS-7	LF-3 (CG)
CS-7*	FS-9*	LF-4
CS-7 (CG)*	FS-13	LF-5
CS-8/FS-21*	FS-14	LF-6
CS-8 (CG)	FS-15	SD-2/FS-6/FS-8
CS-9	FS-16*	SD-3/FTA-3/CY-4
CS-11*		

Key: CS = Chemical Spill.  
CY = Coal Yard.  
DDOU = Drum Disposal Operable Unit.  
FS = Fuel Spill.  
FTA = Fire Training Area.  
LF = Landfill.  
SD = Storm Drain.  
CG = U.S. Coast Guard.  
\* Includes structure(s) at site.

TABLE 2.—NO ACTION SITES

CS-5 (CG)*	FS-2 (CG)	LF-2 (CG)
CS-7*	FS-3*	LF-3
CS-7 (CG)*	FS-15	LF-3 (CG)
CS-12*	FS-16*	LF-5
CY-1*	FS-27	LF-6
CY-3	LF-1 (CG)	

Key: CS = Chemical Spill.  
CY = Coal Yard.  
FS = Fuel Spill.  
FTA = Fire Training Area.  
LF = Landfill.  
SD = Storm Drain.  
USCG = U.S. Coast Guard.  
\* Includes structure(s)

TABLE 3.—SITES WHERE ACTION OCCURRED

CS-1*	CS-8 (CG)*	FS-14
CS-1 (CG)*	CS-9	FS-17
CS-2	CS-11*	FS-18*
CS-2 (CG)*	CS-14*	FS-19
CS-3*	CS-15	

TABLE 3.—SITES WHERE ACTION OCCURRED—Continued

CS-3 (CG)*	CS-16/CS-17/DDOU*	FS-20*
CS-4*	CS-22	FS-23
CS-4 (CG)/FS-1 (CG)*	FS-2	FS-25*
CS-5*	FS-4	FS-26 (CG)
CS-6*/FS-22	FS-7	LF-4
CS-6 (CG)*	FS-9*	SD-2/FS-6/FS-8
CS-8/FS-21*	FS-13	SD-3/FTA-3/CY-4

Key: CS = Chemical Spill.  
CY = Coal Yard.  
DDOU = Drum Disposal Operable Unit.  
FS = Fuel Spill.  
FTA = Fire Training Area.  
LF = Landfill.  
SD = Storm Drain.  
USCG = U.S. Coast Guard.  
\* Includes structure(s)

[FR Doc. E7-14677 Filed 7-31-07; 8:45 am]

BILLING CODE 6560-50-P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Centers for Medicare & Medicaid Services

#### 42 CFR Part 424

[CMS-6006-P]

RIN 0938-A084

### Medicare Program; Surety Bond Requirement for Suppliers of Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS)

**AGENCY:** Centers for Medicare & Medicaid Services (CMS), HHS.

**ACTION:** Proposed rule.

**SUMMARY:** Consistent with section 4312(a) of the Balanced Budget Act of 1997 (BBA), this proposed rule implements section 1834(a)(16)(B) of the Social Security Act (the Act) by requiring all Medicare suppliers of durable medical equipment, prosthetics, orthotics and supplies (DMEPOS) to furnish CMS with a surety bond. We believe that this requirement would limit the Medicare program risk to fraudulent DME suppliers; enhance the Medicare enrollment process to help ensure that only legitimate DME suppliers are enrolled or are allowed to remain enrolled in the Medicare program; ensure that the Medicare program recoups erroneous payments that result from fraudulent or abusive billing practices by allowing CMS or its designated contractor to seek payments from a Surety up to the penal sum; and help ensure that Medicare beneficiaries receive products and services that are considered reasonable and necessary from legitimate DME suppliers.

**DATES:** To be assured consideration, comments must be received at one of the addresses provided below, no later than 5 p.m. on October 1, 2007.

**ADDRESSES:** In commenting, please refer to file code CMS-6006-P. Because of staff and resource limitations, we cannot accept comments by facsimile (FAX) transmission.

You may submit comments in one of four ways (no duplicates, please):

1. *Electronically.* You may submit electronic comments on specific issues in this regulation to <http://www.cms.hhs.gov/eRulemaking>. Click on the link "Submit electronic comments on CMS regulations with an open comment period." (Attachments should be in Microsoft Word, WordPerfect, or Excel; however, we prefer Microsoft Word.)

2. *By regular mail.* You may mail written comments (one original and two copies) to the following address only:

Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS-6006-P, P.O. Box 8017, Baltimore, MD 21244-8017.

Please allow sufficient time for mailed comments to be received before the close of the comment period.

3. *By express or overnight mail.* You may send written comments (one original and two copies) to the following address only:

Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS-6006-P, Mail Stop C4-26-05, 7500 Security Boulevard, Baltimore, MD 21244-1850.

4. *By hand or courier.* If you prefer, you may deliver (by hand or courier) your written comments (one original and two copies) before the close of the comment period to one of the following addresses. If you intend to deliver your comments to the Baltimore address, please call telephone number (410) 786-

7195 in advance to schedule your arrival with one of our staff members.

Room 445-G, Hubert H. Humphrey Building, 200 Independence Avenue, SW., Washington, DC 20201; or 7500 Security Boulevard, Baltimore, MD 21244-1850.

(Because access to the interior of the HHH Building is not readily available to persons without Federal Government identification, commenters are encouraged to leave their comments in the CMS drop slots located in the main lobby of the building. A stamp-in clock is available for persons wishing to retain a proof of filing by stamping in and retaining an extra copy of the comments being filed.)

Comments mailed to the addresses indicated as appropriate for hand or courier delivery may be delayed and received after the comment period.

*Submission of comments on paperwork requirements.* You may submit comments on this document's paperwork requirements by mailing your comments to the addresses provided at the end of the "Collection of Information Requirements" section in this document.

For information on viewing public comments, see the beginning of the **SUPPLEMENTARY INFORMATION** section.

**FOR FURTHER INFORMATION CONTACT:** Frank Whelan, (410) 786-1302.

#### **SUPPLEMENTARY INFORMATION:**

*Submitting Comments:* We welcome comments from the public on all issues set forth in this rule to assist us in fully considering issues and developing policies. You can assist us by referencing the file code CMS-6006-P and the specific "issue identifier" that precedes the section on which you choose to comment.

*Inspection of Public Comments:* All comments received before the close of the comment period are available for viewing by the public, including any personally identifiable or confidential