REGION 5 RAC2

REMEDIAL ACTION CONTRACT FOR

Remedial, Enforcement Oversight, and
Non-Time Critical Removal Activities at Sites of Release
or Threatened Release of Hazardous Substances in Region 5

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SITE MANAGEMENT PLAN

Remedial Investigation/Feasibility Study

Behr Dayton Thermal System VOC Plume Site

Montgomery County, Dayton, Ohio

WA No. 046-RICO-B5FH/Contract No. EP-S5-06-01

October 2008

PREPARED FOR

U.S. Environmental Protection Agency

PREPARED BY

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SECTION 1

Introduction

This Site Management Plan (SMP) was developed to address the remedial investigation/feasibility study (RI/FS) activities at the Behr Dayton Thermal System Volatile Organic Chemical (VOC) Plume Site in Dayton, Ohio. The SMP describes access, security, pollution control, storage and disposal of investigation-derived waste (IDW), and other procedures to be followed in the field. This SMP incorporates the elements of the following support plans into a single document:

- Site Access and Security: Provides the access and security procedures to be used while working onsite.
- Pollution Control and Mitigation Plan: Provides the process, procedures, and safeguards that will be used such that contaminants or pollutants are not released offsite during the implementation of the investigation.
- Transportation and Disposal Plan (Waste Management Plan): Provides the methods that will be used for the management, transport, and disposal of wastes encountered during the investigation.

These plans were prepared in conjunction with the following site-specific plans (prepared by CH2M HILL under separate cover):

- Quality Assurance Project Plan (QAPP): Presents, in specific terms, the policies, organization, analytical objectives and protocols, the specific quality assurance (QA) and quality control (QC) activities associated with the collection and analysis of samples during the field investigation; field sampling plan (FSP) elements describe the site background, physical characteristics, project approach, and details of the investigation activities to be completed as part of the RI; and the data management plan (DMP) for storing, handling, accessing, and securing data collected during the investigation.
- Health and Safety Plan (HASP): Provides the task-specific health and safety requirements and contingency procedures, including emergency procedures and spill reporting.

SECTION 2

Site Access and Security

This support plan provides the access and security measures that will be used during the investigation.

2.1 Site Access

The site is comprised of three industrial properties within a mixed residential and industrial area. The industrial properties include the following:

- Behr facility at 1600 Webster Street
- Gem City Chemicals, Inc. (Gem City Chemicals) at 1287 Air City Avenue
- Aramark Uniform Services (Aramark) at 1200 Webster Street

It is anticipated that the work will be conducted on the Behr facility, Gem City Chemicals, Aramark, and in surrounding offsite area right-of-ways (ROWs). Public roads will be used for general access to the offsite residential locations. Access to the three industrial properties for the investigation activities will be obtained by the U.S. Environmental Protection Agency (USEPA). CH2M HILL will obtain ROW access from the City of Dayton. The initial investigation activity will consist of a reconnaissance of the Behr, Aramark, and Gem City facilities to establish access points and procedures.

2.2 Security

All site activities will be conducted in accordance with the site-specific HASP. The HASP will be kept with the team during field operations and will be updated on a regular basis to account for changes in scope, personnel, and subcontractor requirements. The site work will be performed during daylight hours using the "buddy system" when and where applicable. Regular contact between the field team leader (FTL) and supporting staff will be maintained using mobile phones or two-way radios.

An exclusion zone that includes warning signage (e.g., cones or caution tape) will be implemented when work is conducted on and offsite. Road closures are not expected; however, traffic control and protective barriers will be employed, if necessary, on active roadways or ROWs. Chemicals used during field activities will be accompanied by material safety data sheets (MSDS) and stored according to the manufacturers' specifications.

CH2M HILL will work with USEPA to establish a secured area either at the Behr facility or on nearby City of Dayton property for temporarily storing IDW and field equipment during the investigation. The secured area will be of sufficient size to stage investigation-related equipment (such as a frac tank, drums, and roll-off bins) and support equipment used by subcontractors.

All IDW will be properly containerized, labeled, and transported and staged in the secured area. No additional site security measures are planned, but may be implemented based upon site-specific conditions.

SECTION 3

Pollution Control and Mitigation Plan

This support plan outlines the process, procedures, and safeguards used to prevent contaminants or pollutants from being released offsite during the implementation of the investigation. Specific details of the site investigation are presented under separate cover in the FSP or QAPP, prepared by CH2M HILL.

3.1 Site Investigation Activities

Tasks to be conducted during the site investigation are specified in the FSP and include the following:

- Utility delineation (on and offsite)
- Site reconnaissance (all three source areas and offsite locations)
- Source area sampling
  - Membrane interface probe (MIP)/direct-push technology (DPT) probing
  - Groundwater sampling
- Soil gas sampling and DPT probing
- Ambient air sampling
- Monitoring well installation, water level gauging, and groundwater sampling
- Sewer outfall investigation including nearby surface water
- Surveying
- IDW management

It is estimated that these tasks will be completed over approximately 12 months. All CH2M HILL employees are responsible for implementing these tasks according to the specified procedures outlined in the FSP and HASP. The project organization structure and description of management responsibilities are provided in the QAPP.

3.2 Surface Water Pollution Control

The site investigation area is bounded by the Mad River to the south and the Great Miami River to the north, west, and southwest. The collection of sediment samples is currently not within the scope of this effort; however, limited surface water sampling may be conducted. No sediment or surface water pollution controls are required for collecting surface water samples associated with the outfall investigation. Should the scope of the project change, control measures for sediment and surface water will be revised as appropriate.

3.3 Groundwater and Subsurface Soil Pollution Control

The primary mechanisms for introducing groundwater or subsurface soil pollution at the site are related to the completion of soil borings, monitoring well installation, and groundwater sampling activities. Groundwater and soil sampling activities will commence per the FSP. Drilling and intrusive work will be conducted by a qualified subcontractor.

Proper care will be exercised to prevent cross-contamination between boreholes and monitoring wells and minimized by decontaminating all non-dedicated down hole equipment (e.g., sampling rods and tubes) after each use. All decontamination activities will be performed in accordance with the standard operating procedures (SOPs) as specified in the FSP. Decontamination water, purge and development water, and soil cuttings will be containerized, transported, and disposed of in accordance to the Waste Management Plan (Section 4.0) and the FSP. No additional groundwater and subsurface soil pollution measures are planned, but may be implemented based upon site-specific conditions.

3.4 Air Pollution Control

Site investigation activities will be conducted to minimize air pollution. As presented in the *Remedial Investigation/Feasibility Study Work Plan* by CH2M HILL in October 2008, volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) are determined to be potential contaminants of interest (COI). Sampling activities will result in minimal soil disturbance, so migration of contaminated dust offsite will not likely be a problem. Dust and ambient air monitoring (including the breathing zone) will be monitored using the applicable monitoring devices as specified by the HASP. No additional air pollution control measures are planned, but may be implemented based upon site-specific conditions.

SECTION 4

Transportation and Disposal Plan (Waste Management Plan)

This supporting plan describes how to manage, transport, and dispose of wastes generated during the RI activities at the Behr Dayton Thermal VOC Plume Site. The purpose of this plan is to broadly define disposal options for the various IDW, such that the wastes can be properly segregated and stored during the investigation, and cost-effectively disposed of when the site characterization is complete. USEPA will designate or approve the appropriate disposal facilities once each waste stream has been characterized.

4.1 IDW Identification and Management

Sources of IDW include soil cuttings from the soil investigation and monitoring well installation tasks, groundwater from the monitoring well installation and development, monitoring well sampling, decontamination fluids, and personal protective and sampling equipment.

CH2M HILL will characterize IDW following procedures outlined in the FSP. IDW will be transported and disposed of in accordance with local, state, and federal regulations as mandated by USEPA.

4.1.1 Soil

Soil cuttings will be generated by soil sampling activities and drilling of new monitoring wells. Soil samples collected as part of the source area investigations will be collected using DPT. Based upon the current assumptions outlined within the *Remedial Investigation/Feasibility Study Work Plan* , approximately 100 cubic yards of excess soil will be generated from the RI activities. Based upon historic data, soil cuttings are expected to be non-hazardous. All soil will be temporarily stored within properly labeled 55-gallon drums and transported to a lined roll-off bin located at the secured area. All soil will be disposed of at an approved facility by the designated waste disposal services subcontractor, as mandated by USEPA. Reasonable practices will be employed to minimize disturbance to the areas that are sampled.

4.1.2 Water

Wastewater will be generated during the RI from groundwater sampling, well installation and development, and decontamination activities. Based upon the current assumptions outlined within the *Remedial Investigation/Feasibility Study Work Plan*, approximately 6,000 gallons of wastewater will be generated from RI activities. Based upon historic data, groundwater is expected to be nonhazardous. All wastewater will be temporarily stored in properly labeled 55-gallon drums and transported to a frac tank stored and secured in a designated area. All water will be disposed of at an approved facility by the designated waste disposal subcontractors, as mandated by USEPA.

4.1.3 Miscellaneous Waste

Waste, consisting of used disposable personal protective equipment (PPE) (such as gloves), disposable sampling equipment (such as scoops, or plastic bags), paper, broken or unused sample containers, and other solids will be generated. PPE (such as sample tubing, gloves, plastic sheeting, acetate liners, etc.) will be separated from other miscellaneous waste (such as trash) and stored in properly labeled 55-gallon drums. PPE will be classified and disposed of by the designated waste disposal services subcontractor at a USEPA-approved facility. Remaining miscellaneous waste will be disposed of in municipal dumpsters and transported to the local landfill.