# STATE OF ALASKA

# DEPT. OF ENVIRONMENTAL CONSERVATION

# DIVISION OF SPILL PREVENTION AND RESPONSE **CONTAMINATED SITES PROGRAM**

SEAN PARNELL, GOVERNOR

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June 23, 2011

Mr. Jon Clark Municipality of Anchorage Department of Public Works 4700 Elmore Road Anchorage, Alaska 99507

Re:

Decision Document; MOA-Anchorage Memorial Park Cemetery

Corrective Action Complete Determination

Dear Mr. Clark:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the MOA-Anchorage Memorial Park Cemetery located at 535 East 9th Avenue in Anchorage, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and this site will be closed.

This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Corrective Action Complete determination.

## Introduction

Site Name and Location MOA-Anchorage Memorial Park Cemetery 535 East 9th Avenue Anchorage, Alaska

Name and Mailing Address of Contact Party:

Mr. Jon Clark

Municipality of Anchorage, Dept. of Public Works

4700 Elmore Road

Anchorage, Alaska 99507

ADEC Site Identifiers:

Hazard ID #22990 Facility ID# 2304 CS file # 2100.26.320

Regulatory authority under which the site is being cleaned up: 18 AAC 75 and 18 AAC 78

Background

One 300-gallon diesel underground storage tank (UST) and one 300-gallon gasoline UST were removed from the ground in the early 1990's. A site assessment conducted in 1995 found evidence of petroleum contamination in the vicinity of the former tanks.

### Contaminants of Concern

During the investigation at this site, soil samples were analyzed for diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on the results of these investigations, the following contaminant of concern was identified:

DRO

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, Under 40 Inch Zone, Migration to Groundwater (MTG).

<u>Contaminant</u> Site Cleanup Level (mg/kg)

• DRO 250

#### Site Characterization

To evaluate the presence or absence of hydrocarbon contamination from the former USTs, two soil borings were advanced at the former location of the USTs. Soil samples were screened with a PID every 5 feet from 4 to 26 feet below ground surface (bgs), and soil samples were collected from the intervals with the highest field screening results. Soil samples contained DRO at a maximum concentration of 14 mg/kg at 24 to 26 feet bgs in soil boring B1. It should be noted that this concentration is well below the Method Two, Table B2, Under 40 Inch Zone, Migration to Groundwater (MTG) cleanup level which is the most stringent for DRO. BTEX was not detected in any samples, and groundwater was located at approximately 26 feet bgs.

Pathway Evaluation

Following investigation at the site, exposure to the remaining contaminants were evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following:

De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1

Table 1 – Exposure Pathway Evaluation

| Pathway                                 | Result                 | Explanation   |
|---|------------------------|---|
| Direct Contact with<br>Surface Soil     | De Minimis<br>Exposure | Surface soil sampling has not<br>been conducted, but site<br>conditions indicate exposure<br>via this pathway is insignificant                      |
| Direct Contact with<br>Sub-Surface Soil | De Minimis<br>Exposure | The remaining contaminated soil is below ADEC's most stringent cleanup levels and is covered by clean fill.   |
| Inhalation-Outdoor Air                  | De Minimis<br>Exposure | Remaining contamination is below ADEC's most stringent cleanup levels.  |
| Inhalation-Indoor Air                   | Pathway<br>Incomplete  | Remaining contamination is below ADEC's most stringent cleanup levels; covered by clean fill; and occupied buildings are not located near the site. |
| Groundwater Ingestion                   | De Minimis<br>Exposure | Groundwater was not encountered in the excavation; and remaining soil contamination is well below ADEC's most stringent MTG cleanup levels.         |
| Surface Water Ingestion                 | Pathway<br>Incomplete  | Surface water in the area is not used for drinking water purposes.  |
| Wild Foods Ingestion                    | Pathway<br>Incomplete  | Wild foods are not collected in this area.  |
| Exposure to Ecological<br>Receptors     | Pathway<br>Incomplete  | There are no complete exposure pathways to ecological receptors at the site   |

Notes to Table 1: "De-minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

#### **ADEC Decision**

The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, ADEC has determined no further assessment or cleanup action is required because this site meets the most conservative Method Two, Table B2, Under 40 Inch Zone, Migration to Groundwater cleanup levels. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department's database.

Although a Corrective Action Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h), and it should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

This closure determination is in accordance with 18 AAC 78.276(f) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

**Appeal** 

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please contact ADEC Project Manager William O'Connell at (907) 269-3057.

Approved By,

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Linda Nuechterlein

Environmental Manager

Recommended By,

William O'Connell

Environmental Program Specialist