



March 23, 2012

Mr. Gerard Martin
Massachusetts Department of Environmental Protection
Southeast Regional Office
Bureau of Waste Site Cleanup
20 Riverside Drive, Lakeville, Massachusetts 02347

Dear Mr. Martin:

Re: Final Phase IV Remedy Implementation Plan
Former Bird Machine Company
100 Neponset Street
Walpole, Massachusetts
RTN 4-3024222

On behalf of Baker Hughes, Inc. (BHI), AMEC Environment and Infrastructure (AMEC) is submitting the Final Phase IV Remedy Implementation Plan (RIP) for the Bird Machine Company Site, Release Tracking Number (RTN) 4-3024222, located at 100 Neponset Street in Walpole, Massachusetts. A copy of the Executive Summary of this report is attached to this letter, which is copied to members of the Public Involvement Plan (PIP) mailing list.

A paper copy of the Final Phase IV RIP is being provided to the PIP repository at the Walpole Public Library (Telephone Number: 508-660-7341) at 143 School Street. The electronic report has been uploaded to the MassDEP (<http://db.state.ma.us/dep/cleanup/sites/Search.asp>) and is also being provided today to the Town of Walpole for upload to their website: <http://walpole-ma.gov/BirdMachine.htm>. No comments were received on this report, which was the subject of our public meeting in Walpole on March 14, 2012. Please contact me if you have any questions on this document.

Sincerely,

A handwritten signature in black ink, appearing to read "Kim M. Henry".

Kim M. Henry
LSP No. 7122

cc: Mr. Michael Boynton, Walpole Town Administrator
Ms. Robin Chapell, Walpole Health Agent
Ms. Landis Hershey, Walpole Conservation Agent
Ms. Deborah Burke, Key Petitioner
Public Involvement Plan Mailing List

Enclosure:
Copy of Final Phase IV RIP Executive Summary



COPY OF FINAL PHASE IV RIP - EXECUTIVE SUMMARY

On behalf of Baker Hughes, Inc. (BHI), AMEC Environment & Infrastructure, Inc. (AMEC) completed this Phase IV Remedy Implementation Plan (RIP) for the former Bird Machine Company (BMC) Site located in Walpole, Massachusetts. BHI is submitting this RIP pursuant to 310 CMR 40.0870 of the Massachusetts Contingency Plan (MCP). This RIP documents the plan for a Comprehensive Remedial Action that is expected to be a Permanent Solution for the Site, and that was selected in the Phase III Remedial Action Plan (RAP; AMEC 2011a). A Permanent Solution will achieve a condition of No Significant Risk (NSR) for current and reasonably foreseeable site uses. As documented in the Class C-2 Response Action Outcome (RAO) Statement submitted to the Massachusetts Department of Environmental Protection (MassDEP) on 12/16/11, the Site already achieves the requirements of a Temporary Solution (AMEC 2011b).

Release Abatement Measures (RAMs) have been conducted at several locations to reduce the mass and concentrations of contaminants at the Site. The Phase II Comprehensive Site Assessment (CSA) reports (AMEC 2011c, AMEC 2011d) indicate that a condition of NSR exists for all areas of the Site except groundwater, where some monitoring well concentrations exceed drinking water criteria (Massachusetts Maximum Contaminant Levels or MMCLs). It is unlikely that groundwater at the Site will be used for drinking water, but the Site is within a Potential Drinking Water Source Area designated by the Town of Walpole (Walpole 2007). Considering this designation, groundwater at the Site is categorized as GW-1 under the MCP. The CSAs found no current pathway between Site contaminants and the Town's water supply wells to the northeast, but the potential for contaminant movement from a portion of the Site warrants further monitoring. Background information including a description of RAMs and Site characteristics is summarized in Section 1 of this RIP.

Areas of groundwater contamination exceeding MMCLs have been identified for arsenic, chlorinated Volatile Organic Compounds (cVOCs), and 1,4-dichlorobenzene (DCB). Monitored Natural Attenuation (MNA) has been selected for implementation in Phase IV. MNA is expected to provide a Permanent Solution that achieves a condition of NSR. MNA has already produced significant reductions in arsenic and cVOC concentrations at individual wells over the past four years of groundwater monitoring. MNA appears capable of achieving or approaching background for cVOCs -- which are expected to require the greatest reductions in groundwater concentrations -- and for the other contaminants.

An Engineering Design for MNA is provided in Section 2 of this RIP, including goals and objectives, proposed activities, and design and operating parameters. The potential areas of groundwater contamination above MMCLs are illustrated in three dimensions using a plan view and cross-sections. A field monitoring program including sampling methods and locations, analytical parameters, and monitoring frequencies is presented, along with data evaluation methods and reporting requirements. Initially the program is envisioned to include approximately 30 water quality monitoring wells and 40 additional water level monitoring points (wells or surface water benchmarks) measured on a quarterly basis. Methods of determining MNA effectiveness and procedures for changing this program over time are also presented.

Section 2 includes site investigations that will precede installation of the final monitoring well network. This initial Geoprobe investigation of contaminant distribution, geochemistry, bedrock depths, and hydraulic gradients will provide data to optimize the final monitoring well locations. This investigation is consistent with the Triad approach described by the United States



Environmental Protection Agency (USEPA) as a potential early phase of developing a performance monitoring plan for MNA (USEPA 2004). A data collection plan is provided in Section 2 along with the process to incorporate these results in the site conceptual model, and if necessary revise the MNA monitoring program that is presented in this RIP. Results of these investigations will be documented along with the final installed monitoring system in the Final Inspection Report (FIR) that is prepared pursuant to 310 CMR 40.0878.

Section 3 and the remaining portions of the RIP include construction specifications, a Health and Safety Plan, and the remaining requirements under 310 CMR 40.0870 of the MCP. Field work as described in this RIP will be initiated after all required approvals are obtained, as described in Section 6. The field phase, including initial data collection and final well installations, is expected to require three months for completion. An expected schedule is provided in Section 3.2 in which a Draft FIR will be submitted in July 2012, and the MNA monitoring program will begin about one month after that. MNA is expected to require up to 10 years to achieve a Permanent Solution under the MCP, and progress will be reported every six months until completion.