

CMG ENVIRONMENTAL, INC.

June 9, 2008

Mr. Louis J. Burkhardt III
Raytheon Company
528 Boston Post Road
Mail Stop 1880
Sudbury, MA 01776

**Re: Public Commentary on Draft Phase IV – Remedy Implementation Plan Addendum
Former Raytheon Facility, 430 Boston Post Road, Wayland, Massachusetts
Release Tracking Number (RTN) 3-22408; CMG ID 2002-003**

Dear Mr. Burkhardt:

The following is my public commentary on the May 14, 2008 Draft Phase IV Remedy Implementation Plan (RIP) Addendum for the former Raytheon facility in Wayland, Massachusetts (the Site) regarding Massachusetts Department of Environmental Protection (DEP) RTN 3-22408, prepared by Environmental Resources Management (ERM). For the record, the Wayland Board of Selectmen has retained me to provide technical review of document submittals and other activities at the Site on behalf of the Town of Wayland, especially those that pertain to compliance with DEP requirements.

As in past document reviews, I have prefaced my comments with ERM's heading designations (where applicable) for ease of comparison, and used uppercase roman numerals to identify each comment. Despite these few comments, please be aware that I am in general agreement with modifications to the Site remedial strategy proposed by Raytheon and prepared by ERM.

2.2 ADDITIONAL SITE ASSESSMENT ACTIVITIES

2.2.2 Groundwater Quality Sampling

I) On Pages 5 and 6 of the draft RIP Addendum, ERM references *Dehalococcoides* analysis as being via "Method 1" and vinyl chloride reductase (vcrA) analysis as being via "Method 2." These do not appear to be U.S. EPA or APHA approved standard methodologies. Review of the SiREM website (the laboratory which conducted these analyses) suggests that these two tests were developed and are currently licensed by Stanford University and/or E.I. du Pont de Nemours and Company (DuPont). However, Wayland did not find any reference to 'Method 1,' 'Method 2,' or any other specific methodology identifier.

The Town requests that Raytheon either remove the references to 'Method 1' and 'Method 2' or provide an explanation of where this terminology originates.

4.2 REDUCTIVE DECHLORINATION AT THE SITE

II) The focus of the RIP Addendum is providing an organic substrate (a food source) for native dechlorinating bacteria. However, in the last paragraph of Section 4.2 (see Pages 10 & 11 of the draft RIP Addendum), ERM notes that "bioaugmentation with a dechlorinating culture may be considered to more rapidly achieve the remedial goals for CVOCs at the Site" because of the observed low rates of reductive dechlorination indicators (only 0.034 to 1.8 µg/L ethane identified

in the most recent sampling round, low counts of *Dehalococcoides* bacteria, and no identification of the vinyl chloride reductase gene *vcrA* in bacteriologic samples). Raytheon does not provide indication of what might trigger the decision to inoculate dechlorinating bacteria at the Site other than “significant accumulation of cDCE [*cis*-1,2-dichloroethene] or VC” [vinyl chloride].

Wayland is not opposed to bioaugmentation (i.e., the inoculation of dechlorinating bacteria), but the Town requests that Raytheon be more specific regarding under what conditions they would take this step. Based on the project schedule specified in Section 5.0, it is likely the Site will be in Remedy Operating Status (ROS) before Raytheon would make such a decision, and therefore no longer within the Public Involvement Plan framework. Wayland would like the opportunity to review Raytheon’s intended decision process regarding bacterial inoculation before RTN 3-22408 enters ROS.

5.0 IMPLEMENTATION SCHEDULE

III) The Proposed Implementation Schedule that ERM provides on page 15 of the draft Phase IV RIP Addendum indicates that Raytheon plans to achieve Phase IV ROS on or before December 23, 2008, which is the scheduled expiration date of Tier IB Permit W045278 for RTN 3-22408. Wayland understands that ERM prepared and Raytheon submitted a Phase IV Completion Statement for RTN 3-13302 (the chlorinated VOC plume at the Southern Area of the Site) on November 24, 2004 to achieve ROS in large part because DEP indicated they would issue a Notice of Noncompliance to Raytheon if they did not do so (as of October 2004 Raytheon’s plan had been to request a Tier IB Permit extension for Tier IB Permit 133939). Therefore, the Town is not surprised that Raytheon would choose to follow a similar course of action for RTN 3-22408.

According to 310 CMR 40.0893, ROS “applies to disposal sites in Phase V where a Comprehensive Remedial Action that relies upon Active Operation and Maintenance of a remedial system or program and meets the requirements of 310 CMR 40.0893 is being conducted for the purpose of achieving a Permanent Solution.” DEP defines ‘Permanent Solution’ at 310 CMR 40.0006 as “a measure or combination of measures which will, when implemented, ensure attainment of a level of control of each identified substance of concern at a disposal site or in the surrounding environment such that no substance of concern will present a significant risk of damage to health, safety, public welfare, or the environment during any foreseeable period of time.”

Wayland does not dispute that implementation of enhanced reductive dechlorination is a cost-effective and currently available technology to address chlorinated VOC contamination in the Northern Area of the Site. However, the Town questions whether Raytheon has enough information in hand to truly determine whether the selected remedial alternative will achieve a Permanent Solution with regards to the ‘ensure attainment’ clause of DEP’s definition, since ERM has not yet conducted any carbon substrate injections (let alone performed post-injection monitoring). Wayland suggests that rather than a Phase IV Completion Statement, Raytheon submit a Tier IB Permit extension application to DEP for Permit W045278 (by November 8, 2008) to allow implementation of enhanced reductive dechlorination as a Phase IV activity. That would give ERM two years [cf. 310 CMR 40.0751(3)] to monitor the effectiveness of carbon substrate addition, and better enable Raytheon to predict whether this selected remedial alternative can achieve a ‘Permanent Solution’ within a foreseeable time period, or whether the most appropriate course of action would be to file a Class C-1 Response Action Outcome and continue enhanced reductive dechlorination as a ‘definitive and enterprising step’ per 310 CMR 40.1051(3)(a).

As always, I thank you in advance for your timely response to this commentary on behalf of the Town of Wayland.

Sincerely,
CMG ENVIRONMENTAL, INC.



Benson R. Gould, LSP, LEP
Principal

- cc:
- Environmental Resources Management (John C. Drobinski, P.G., LSP)
 - Mr. J. Andrew Irwin, Wayland
 - Ms. Anette Lewis, Wayland
 - Massachusetts DEP (Pat Donahue, Larry Immerman, Karen Stromberg)
 - National Parks Service (% Jamie Fosberg)
 - Mr. Lewis Russell, Wayland
 - Mr. Harvey & Ms. Linda Segal, Wayland
 - Ms. Kimberly Tisa, U.S. EPA Region I
 - Wayland Board of Health PIP Repository (% Steve Calichman, Health Director)
 - Wayland Board of Selectmen (% Town Administrator Frederic Turkington)
 - Wayland Business Center, LLC (% Paula Phillips, Congress Group Ventures)
 - Wayland Conservation Commission (% Brian Monahan)
 - Wayland Fire Chief Robert F. Loomer
 - Wayland Public Library PIP Repository (% Ann Knight)