

CMG ENVIRONMENTAL, INC.

October 8, 2002

Ronald C. Slager, Jr.
Raytheon Company
1001 Boston Post Road
Mail Stop MS-1-2-1567
Marlborough, MA 01752

**Re: Public Commentary on September 18, 2002 Draft
Release Abatement Measure Plan – Modification #1
Former Raytheon Site, 430 Boston Post Road, Wayland MA
CMG ID 2002-003**

Dear Mr. Slager:

The following are my comments on the September 18, 2002 Draft Release Abatement Measure (RAM) Plan Modification #1 prepared by Environmental Resources Management (ERM) on the above-referenced property (the Site). 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.

For ease of comparison, I prefaced my comments according to ERM's heading designations.

PURPOSE & SCOPE

c) Objectives, specific plans, and proposed implementation schedule for the RAM

1. Install Additional Monitoring Points

I) On page 9, the RAM Plan Modification specifies that the two proposed additional monitoring wells will have ten-foot well screens. Since the expanded in-situ chemical oxidation (ISCO) pilot testing will focus on narrow vertical intervals, Wayland believes that five foot (or shorter) screened intervals would provide better pilot study results. Furthermore, we are concerned that the injected permanganate may leak from shallow injection into the deeper aquifer, or vice versa, via these monitoring wells. If you disagree, please explain why you prefer a ten-foot screened interval.

2. Establish Baseline Hydrogeochemistry

II) Table 1 on page 9 indicates that you will analyze samples for chromium via EPA Method 200.7, given the rationale that ISCO could convert Cr^3 (trivalent) species to Cr^6 (hexavalent). Method 200.7 will provide results for total chromium, but you will also need to run samples via EPA Method 218.4 or 218.5 to obtain hexavalent chromium results, and then subtract any Cr^6 detection to obtain Cr^3 results.

III) The QA/QC description on page 10 does not indicate that Raytheon and ERM will submit sufficient samples for matrix spike duplicates (which is preferable to having the analytical

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laboratory select random samples out of their batch run for that day). Please include wording indicating you will direct the laboratory to take matrix spikes from site samples and provide sufficient filled sample containers to do so.

d) Management of Remedial Waste

IV) The RAM Plan Modification indicates that the [ISCO] reaction "does not generate any toxic by-products." Comments from persons attending the Public Involvement Plan (PIP) meeting on October 3, 2002 indicate a level of public concern regarding possible toxic by-products of the ISCO chemical reaction. The original RAM Plan (September 11, 2001) indicated that ISCO may also react with "natural organic carbons, such as humic and fulvic acids, and reduced minerals." However, neither the original RAM Plan nor the RAM Plan Modification list ISCO reaction products. Please provide chemical equations showing the actual reactants and products (including chemical intermediates, intentional products, and likely by-products), based on available information.

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. Devens Hamlen, Wayland
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 and Ms. Linda Segal, Wayland
Wayland Board of Health PIP Repository (% Steve Calichman, Health Director)
Wayland Board of Selectmen (% Executive Secretary Jeff Ritter)
Wayland Business Center, LLC (% Paula Phillips, Congress Group Ventures)
Wayland Conservation Commission (% Brian Monahan)
Wayland Public Library PIP Repository (% Louise Brown)