



EA Engineering, Science, and Technology, Inc.

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28 March 2007

Mr. Terrence Gray, PE
Assistant Director for Air, Waste, and Compliance
Rhode Island Department of Environmental Management
Bureau of Environmental Protection
235 Promenade Street
Providence, Rhode Island 02908

RE: Letter Regarding Amended Order of Approval Dated 27 February 2007
Former Gorham Manufacturing Facility,
Parcel B, 333 Adelaide Avenue, Providence, Rhode Island
Case No. 2005-029
EA Project No. 61965.01

Dear Mr. Gray:

EA Engineering, Science, and Technology, Inc. (EA) is submitting this letter per your suggestion that the City of Providence (City) submit written correspondence relative to concerns raised by the Amended Order of Approval (the Amended Order) for the referenced site and issued by the Rhode Island Department of Environmental Management (the Department) on 27 February 2007.

As a sign of continued good faith and the City's willingness to be conservative with respect to public health concerns at the Gorham school site, the City has begun complying with the Amended Order. However, on behalf of the City, we respectfully reiterate our request for an immediate meeting to clarify outstanding confusion and issues associated with the Amended Order and to discuss and agree on an O&M Plan that is protective of future school site users, and meets (or even *reasonably* exceeds) the professional standard of care in accordance with applicable state (e.g., NY, MA) and federal guidance (EPA). Our rationale for requesting the meeting is presented below.

The Department's decision to issue an Amended Order that significantly increased the number and frequency of costly laboratory analyses was unnecessary, was not based upon scientific or technical justification, and will result in significant additional financial costs to the City. The decision to issue the Amended Order is especially troubling since:

- The Remedial Action Work Plan (RAWP) regulatory review and approval process conducted by RIDEM between April and June 2006 included multiple verbal and written correspondence between RIDEM and EA (on behalf of the City) that negotiated and outlined the long term O&M plan for the site; clearly distinguished the frequency of air sampling and monitoring, the required number of air samples at various locations with associated laboratory analysis, and the frequency and type of field monitoring/inspections for various parameters; and demonstrates the Department's understanding and consistent use of the terms "monitoring" and



“sampling” as applied to this site, other regulated remediation sites, and as consistently used in the environmental profession.

- EA and the Department (Joe Martella, Brian Wagner, and Chris Walusiak) met on 9 February 2007 to discuss the status of RAWP Implementation at the site. During the meeting, in response to RIDEM’s assertion that EA was misinterpreting the O&M Plan and the June 2006 Order of Approval, we discussed a seemingly logical compromise where the City would increase the number of air samples and expedite the frequency of sampling during the time that no one would be occupying the building over the next several months in order to determine what, if any, adjustments were needed to the O&M Plan prior to school occupancy.
- The wording in the Amended Order promotes a misconception that EA and/or the City was attempting to implement an O&M Plan that did not include any laboratory sampling and only proposed to perform field monitoring when more than adequate sampling in excess of state and federal guidance was provided for.
- The RIDEM-approved long-term O&M Plan (June 2006 Order of Approval) *already* included a level of sampling combined with field monitoring for numerous parameters that far exceeded federal and state guidance on the subject.
- The Amended Order fails to clarify several other issues regarding Action Levels and included a mandate (which has been complied with) to initiate site sampling activities by the week of 12 March 2007 prior to completion of remedy installation and during a time when building construction (flooring, painting, etc.) activities with the potential to generate high levels of VOCs were still ongoing.
- There was no prior communication from RIDEM to EA or the City prior to our receipt of the Amended Order.

Also, in response to Joe Martella’s email dated 20 March 2007 in which he provides laboratory pricing for TO-15 analysis from Spectrum Analytical Laboratory (Agawam, MA) to diminish the financial burden being placed upon the City by the Amended Order, EA requested a formal price quote from said laboratory. Spectrum has quoted a price of \$275 for each TO-15 analysis. More importantly, there are other costs associated with sample collection besides the lab cost per sample:

- Scheduling/coordination with the lab, field personnel, equipment rental company, school personnel, etc.
- Field time to collect the samples and perform the associated field monitoring - each complete round site visit takes about 10 labor hours in the field since the samples are flow controlled composites (per State and Federal guidance).
- Equipment rental/usage charges.



- Charges associated with data analysis, tabulation, and comparison to Action Levels.
- Additional engineering, reproduction, and admin. costs associated with providing all the additional sampling data to the public, RIDEM, City representatives, school board officials, City's legal representatives, etc.
- Additional costs (photocopying and administrative labor) associated with incorporating the additional voluminous data into summary reports; and
- Industry standard markup on lab invoices (10 – 20 percent).

Therefore, we estimate that, collectively, a “complete round” of samples per the Amended Order translates to a cost of approximately \$475 per sample. Referring to the attached spreadsheet which outlines the indoor, sub-slab, ambient, and roof-top effluent air sampling frequency for the time period from March 2007 through the end of March 2008, the Amended Order requires a total of between 275 and 535 summa canister samples. The large range of samples required by the Amended Order is based upon the language contained in the Amended Order which states that the weekly sample collection frequency required for the period just prior to and immediately after school occupancy (approximately from August through September) shall remain weekly in the event that any VOC or methane Action Level is exceeded. Considering that the Action Levels being required by RIDEM are extremely low and the fact that the Amended Order *required* sampling to commence at a time when building construction activities such as applying polyurethane to the gymnasium floor, painting, and carpeting were still ongoing, the scenario that 535 summa canister samples will be required is probable.

During the same time period, the number of air samples included in the long-term O&M Plan included in the RAWP, and subsequently revised per email dated 28 April 2006 from EA to RIDEM and written correspondence between RIDEM and EA dated 23 May and 25 May 2006, was to be 48 samples. The 48 samples, to have been collected at representative locations prior to sub-slab system start-up, one week after system start-up, and then quarterly thereafter, combined with the intensive weekly field inspections and field monitoring for the first quarter (and monthly thereafter), *collectively* provided a long-term O&M Plan that far exceeds the applicable state and federal guidance for monitoring effectiveness of sub-slab depressurization systems such as the one installed at the site.

In summary, based on the \$475 estimated cost per sample and the range of *additional* samples being required by the Amended Order (between 227 – 487) the Amended Order has added between \$108K - \$231K in *additional* sampling costs. Applying the “clarification of terminology” argument presented in the Amended Order would *only* translate to an increase in the number of samples from 48 to 166 (please refer to attached spreadsheet), and a \$56K increase in sampling costs. However, the Amended Order requires a *quadruple* increase in sampling costs (\$231K versus \$56K) expected based upon the “clarification of terminology” rationale. It is EA’s opinion that the revised long-term O&M Plan amounts to much more than a clarification of the terms “monitoring” versus “sampling,” as alleged by the Amended Order.



In conclusion, as they continue to implement the Amended Order to demonstrate good faith, the City reiterates their request for an immediate meeting with RIDEM officials. We also request that the Department's Office of Customer and Technical Assistance be present at the meeting to help facilitate the discussion. We are hopeful that a productive meeting and a mutually acceptable resolution can be achieved. The courtesy of a reply is requested by 4 April 2007. You may contact us at (401) 736-3440, Ext. 216 or at pgrivers@eaest.com.

Thank you in advance for your willingness to consider this request and your timely response.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read 'Peter M. Grivers'.

Peter M. Grivers, P.E., LSP
Project Manager

A handwritten signature in black ink, appearing to read 'Timothy C. Regan'.

Timothy C. Regan, P.E., M.B.A.
Client Manager/Senior Engineer

Attachments: Summa Sample Collection and Frequency Comparison Spreadsheet

cc: J. Simmons, City of Providence
A. Sepe, Providence Department of Public Property
S. Rapport, City of Providence Law Department
J. Boehnert, Partridge, Snow, & Hahn
J. Ryan, Partridge, Snow, & Hahn
T. Deller, Providence Redevelopment Agency
J. Langlois, RIDEM Legal Services
R. Gagnon, RIDEM Office of Customer and Technical Assistance
L. Hellested, RIDEM Office of Waste Management
K. Owens, RIDEM Office of Waste Management
J. Martella, RIDEM Office of Waste Management
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S. Fischbach, RI Legal Services
Former Gorham Site, Parcel B – Knight Memorial Library Repository