

January 18, 2005

Ms. Shannon Pociu
Planning and Standards Division
Bureau of Waste Management
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 061069-5127

RE: Clarification and Additional Information for Dioxin
Sampling Modification identified in December 14, 2004
Request for Modification to Sampling Plan and Addendum
to April 16, 2004 "Supplemental Scope of Study, Former
Hew Haven Water Company Property,
Middle School Site, Hamden, Connecticut"
Consent Order No, SRD-128

Dear Ms. Pociu:

Pursuant to your request, the following provides additional information and further clarification of our proposed dioxin furan sampling protocol for material identified to contain polychlorinated biphenyl (PCB) at the Hamden Middle School site. This sampling protocol is discussed in the December 14, 2004 addendum modification submitted by Leggette, Brashears & Graham, Inc. (LBG) on behalf of the South Central Connecticut Regional Water Authority (RWA) (letter text attached).

As you are aware, our investigations characterizing the extent of PCB-impacted materials at the Middle School Site continued through the holidays. With the exception of three sample results, we have received all sample results for PCBs analyzed during this period. A summary of the results are presented in the attached table. Thus far during the supplemental 2004/2005 field investigations, 511 samples have been analyzed for PCBs from 93 soil borings. During this supplemental investigation, PCBs were detected in 82 of the 511 samples, with PCBs detected in 40 of 93 soil borings. Including the initial 2002 investigation results, PCBs were detected in 95 of 621 samples analyzed, with detections at 49 of 129 sample locations (approximately 38 percent).

As discussed in the December 4, 2004 submittal, the distribution of PCB detections show their presence to be throughout the site in both shallow and deeper materials. In addition, PCBs were detected in all fill materials, except those located near the former Newhall Street Public School (Newhall Community Center). As shown on table 1, concentrations of PCBs detected ranged from 0.02 mg/kg to 61.8 mg/kg. The distribution of the total PCB concentrations identified throughout the site does not indicate the presence of isolated spill areas with the exception of the area immediately surrounding LBG-TB-193 (northwestern side of tennis courts). A spill area which would typically be identified as high concentration areas surrounded by a decreasing chemical gradient.

Considering the widespread distribution of the PCB detections, and in accordance with the CTDEP's December 1, 2004 letter, LBG proposed a sampling protocol for dioxins and furans similar to the protocol approved by the CTDEP for volatile organic compound (VOC) analyses. The proposed sampling protocol includes the analyses for dioxins and furans for a subset of samples detected with PCBs. LBG requests that only samples detected with PCB concentrations greater than 1 mg/kg be subjected to dioxin and furan analyses. However, if more than one sample is detected above 1 mg/kg in a single boring, then the sample with the highest concentration in the soil boring would be analyzed for dioxins and furans. Note the samples locations would not be limited to the spill area identified near the tennis courts, but rather throughout the entire Middle School Site. This sampling protocol for dioxin and furan analyses would also be implemented during any continued field investigations to characterize the presence of PCB at the Middle School Site.

Using the above protocol, the following ten samples collected during the 2004/2005 field investigations would be analyzed for dioxins and furans.

Sample ID	Interval (feet below grade)	PCB Concentration (mg/kg)
LBG-TB-162	6 to 7	1.22
LBG-TB-147	6 to 7	1.28
LBG-TB-76	12 to 14	1.81
LBG-TB-75	12 to 14	2.19
LBG-TB-193	10 to 11	3.78
LBG-TB-197	10 to 11	4.6
LBG-TB-209	11 to 13	5.23
LBG-TB-198	6 to 7	7.88
LBG-TB-111	8 to 9	30.2
LBG-TB-196	8 to 9	61.8

Your immediate response would be greatly appreciated. If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Michael Manolakas, LEP
Associate

Reviewed by:

Jeffrey B. Lennox, CPG, LEP
Principal

MM:cmm
Enclosures

cc: T. Chaplik J. Barret (3)
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“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law.”

South Central Connecticut Regional Water Authority
Thomas V. Chaplik
Vice President

Leggette, Brashears & Graham, Inc.
Jeffrey B. Lennox
Principal