STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

December 1, 2004

Mayor Carl Amento
Hamden Government Center
2750 Dixwell Avenue
Hamden, CT 06518

Curt M. Richards
Vice President
Olin Corporation
P.O. Box 248
Charleston, TN 37310

David Silverstone
Chief Executive Officer
Regional Water Authority
90 Sargent Drive
New Haven, CT 06511-5966

RE: Sampling and Analysis Requirements for Dioxins and Furans
Newhall Street Neighborhood, Hamden
Consent Order No. SRD-128

Dear Mssrs. Amento, Richards, and Silverstone:

The Remediation Section of the Department of Environmental Protection (the Department) has received additional guidance and recommendations from the Department of Public Health regarding analysis of soil and fill samples collected at the Newhall site for polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran compounds (dioxins and furans). Based on the Department of Public Health's recommendations, the Department is requiring each of the Respondents performing investigation at the site to complete sampling and analysis for dioxins and furans as described below.

1. Analytical Method.

Based on the Department of Public Health's recommendation, the Department requires that that EPA Method 8290 must be used for all dioxin and furan analyses. This requirement supercedes the approvals previously granted in each Respondent's investigation work plan for the use of other laboratory or screening methods. Attached for your use is a list of

laboratories certified by the Department of Public Health to perform dioxin and furan analysis using this method. The laboratory must include calculation of the toxic equivalent quotient (TEQ) for each sample using the toxic equivalency factors (TEFs) published by the World Health Organization.

While the Department is aware that previously collected samples may have exceeded the 30-day holding time specified in EPA Method 8290, the method notes that the holding time is a recommendation only. Because these compounds are very stable in a variety of matrices, the holding time may be as long as 1 year. Regardless, samples that exceed the 30-day holding time should be considered to be minimum concentrations and noted as such.

2. Analysis when polynuclear aromatic hydrocarbons are detected.

Using benzo(a)pyrene as an indicator, five (5) waste samples must be analyzed for dioxins and furans using EPA Method 8290 for each of the following concentration ranges: 0.5 milligrams per kilogram (mg/kg), 1 mg/kg, and 10 mg/kg of benzo(a)pyrene. If any fill samples are reported to contain concentrations of benzo(a)pyrene exceeding 10 mg/kg, additional fill samples, not to exceed five (5) in number, must also be submitted for dioxin and furan analysis after consulting with the Department on sample selection. Fill samples must not be surface soil samples and should contain ash or other evidence of combustion, if possible.

3. Analysis when chlorinated pesticides are detected.

To clarify a previous issue raised by consultants for the Respondents, the requirement to analyze soil or fill samples containing chlorinated pesticides for dioxins and furans is hereby waived.

4. Analysis when polychlorinated biphenyls (PCBs) or chlorinated solvents are detected.

The Department's previous requirement of all Respondents to analyze any soil or waste samples containing PCBs or chlorinated solvents for dioxins and furans remains. However, the analytical method used must be EPA Method 8290. Questions or proposals regarding the selection of a subset of samples containing PCBs or chlorinated solvents for dioxin and furan analysis may be presented to the Department for review and approval.

If you have any questions pertaining to this matter, please contact Shannon W. Pociu of my staff at (860) 424-3546.

Sincerely,

Elsie Patton

Elsie Patton
Acting Director
Planning and Standards Division
Bureau of Waste Management

EP:SWP

Attachment

cc: William F. Kay, Jr., Haley & Aldrich, Inc.
Chris Harriman, Haley & Aldrich, Inc.
Ann M. Catino, Esq., Halloran & Sage LLP
Raymond Horn, Olin Corporation
Ken Cichon, Malcolm Pirnie, Inc.
Harold Moritz, Malcolm Pirnie, Inc.
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Thomas Chaplik, Regional Water Authority
Jeff Lennox, Leggette, Brashears & Graham, Inc.
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Elizabeth Hayes, Newhall Coalition, Inc.
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ENVIRONMENTAL LAB CERTIFICATION: ANALYTES AND LABS

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Report Name: ANALYTES AND LABS Report published from: CERTIFICATION REPORTS screen #3

Report criteria: lab code = *
test code = ps120

Test Code	Test Name	Lab Code	Lab Name (STATE)	Phone
PS120	Polychlorinated Dioxin Isomers	ID1104P	Alta Analytical Laboratory, Inc. (CA)	916-933-1640
PS120	Polychlorinated Dioxin Isomers	ID1108P	STL Sacramento (CA)	916-373-5600
PS120	Polychlorinated Dioxin Isomers	ID1158P	Pace Analytical Services, Inc. (MN)	612-607-1700
PS120	Polychlorinated Dioxin Isomers	ID1198P	Eno River Labs, LLC (NC)	919-281-4040
PS120	Polychlorinated Dioxin Isomers	ID1214P	Lionville Laboratory Incorporated (PA)	610-280-3000
PS120	Polychlorinated Dioxin Isomers	ID1289P	Paradigm Analytical Laboratories, Inc. (NC)	910-350-1903
PS120	Polychlorinated Dioxin Isomers	ID1295P	Columbia Analytical Services, Inc./ Houston (TX)	713-266-1599

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