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March 22, 2011

Mr. Patrick Bowe Remediation Division Bureau of Water Protection and Land Reuse State of Connecticut Department of Environmental Protection 79 Elm Street Hartford, CT 06106

Re:

Property-Specific Remedial Action Report

Newhall Street Neighborhood

40 Prospect Lane

Hamden, Connecticut 06517

Dear Mr. Bowe:

Enclosed is the Property-Specific Remedial Action Report (RAR) prepared for the property located at 40 Prospect Lane in Hamden, Connecticut. The Property-Specific RAR summarizes the remediation and restoration activities conducted at the property as required by Consent Order No. SRD-128. Remediation and restoration for this property is complete and has been implemented in compliance with the Remedy Selection Plan and the Generic RAP approved by the Connecticut Department of Environmental Protection (CTDEP).

Section 2.0 of the RAR documents property-specific construction activities, as well as any adjustments to the Property-Specific Remedial Action Plan (RAP) that were required due to the extent of fill encountered or other field conditions. Please note that any field adjustments made were pursuant to the approved Generic RAP and/or with CTDEP oversight and approval. Olin hereby submits this Property-Specific RAR for CTDEP approval.

Please contact me at (423) 336-4540 if you have any questions regarding this matter.

Sincerely,

OLIN CORPORATION

David M. Share

Director, Environmental Remediation

cc: Ms. Dorothea Stewart-Cooper – 40 Prospect Lane, Hamden, Connecticut 06517

Curt Richards – Olin Carrie Hunt – Olin

Nelson Walter - MACTEC

Robert Bell - CTDEP

Ray Frigon - CTDEP

Richard Pearce - Newhall Street Neighborhood Community Liaison

PROPERTY-SPECIFIC REMEDIAL ACTION REPORT 40 PROSPECT LANE

NON-PUBLIC PROPERTIES NEWHALL STREET NEIGHBORHOOD HAMDEN, CONNECTICUT

Prepared for:

Olin Corporation Cleveland, Tennessee

Prepared by:



MACTEC Engineering and Consulting, Inc. 1090 Elm Street, Suite 201 Rocky Hill, Connecticut 06067

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MACTEC Project No.: 6107110004-55

MACTEC Electronic Signature

Nelson Walter, P.E. Project Manager

MACTEC Electronic Signature

Rod Pendleton, P.G. Principal Scientist

J. Robert Perdleton

DOCUMENT CERTIFICATION

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.

David M. Share, Director, Environmental Remediation

Chief Executive Officer (or duly authorized representative)

Olin Corporation

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Nelson Walter, Project Manager

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MACTEC Engineering and Consulting, Inc.

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	bgs	below ground surface						
	CTDEP	Connecticut Department of Environmental Protection						
	MACTEC	MACTEC Engineering and Consulting, Inc.						
	NPP	non-public properties						
	Olin	Olin Corporation						
	RAP	Remedial Action Plan						
	RAR	Remedial Action Report						
	RSP	Remedy Selection Plan						
	XRF	X-ray fluorescence						

1.0 INTRODUCTION

This Property-Specific Remedial Action Report (RAR) was prepared by MACTEC Engineering and Consulting, Inc. (MACTEC) on behalf of Olin Corporation (Olin) for the property located at 40 Prospect Lane in Hamden, Connecticut. This Property-Specific RAR was prepared based on information obtained during remediation activities conducted at the property during the 2010 construction season. This document provides information about the remediation activities completed for the property, which are required by Consent Order SRD-128 entered into by Olin, the Town of Hamden, the Regional Water Authority, the State Board of Education, and the State of Connecticut Department of Environmental Protection (CTDEP). The Consent Order requires Olin to excavate and remove fill material up to 4 feet below ground surface (bgs) from approximately 230 residential properties within the Consent Order boundary.

Section 1 of this report provides a summary of site history and a general description of the remedy process for the Newhall Street Neighborhood. Section 2 of this report describes the construction activities conducted at 40 Prospect Lane.

1.1 REGULATORY STATUS

In April 2003, the CTDEP issued a Consent Order to Olin, the Town of Hamden, South Central Connecticut Regional Water Authority, and the State Board of Education (CTDEP, 2003). The Consent Order requires Olin to investigate and remediate the Non-Public Properties (NPP) within the Consent Order boundary of the Newhall Street Neighborhood.

1.2 DESCRIPTION OF REMEDY PROCESS

In October 2007, a Final Remedy Selection Plan (RSP) was approved and issued by the Commissioner of the CTDEP (CTDEP, 2007). The remedy for the NPP within the Consent Order boundary is summarized below:

- Excavation of fill within the top 4 feet;
- Disposition of excavated material at authorized off-site facilities;
- Backfilling of excavated areas with clean soil; and
- Restoration of existing features including landscaping, patios, fencing, driveways, etc. that are disturbed during construction activities.

The Final Design - Generic Remedial Action Plan (RAP) (MACTEC, 2008), was approved by the CTDEP and serves as the basis for remedial action activities within the NPP. The Final Design - Generic RAP details remedial construction activities including excavation of fill to a depth of up to four feet, backfilling excavations, disposition of fill and debris, and restoration of disturbed areas. Detailed plans and specifications regarding the remediation are contained in the Generic RAP and other project plans which have been approved by the CTDEP. The Final Design - Generic RAP and other plans are available at the Town of Hamden Miller Public Library located at 290 Dixwell Avenue, and on the CTDEP website at: http://www.newhallinfo.org.

The Final Design-General RAP requires that prior to implementing the approved remedial solution, a Property-Specific RAP be prepared for each property owner and submitted to the CTDEP for approval. The purpose of the Property-Specific RAP is to provide the homeowner with information regarding the planned construction activities, temporary relocation requirements (if necessary), access provisions, an estimated time table to complete the planned work, and a description of plans to restore the property to existing conditions.

2.0 PROPERTY-SPECIFIC CONSTRUCTION ACTIVITIES

During the 2010 construction season, Olin completed the excavation of fill material to a depth of 4 feet bgs, backfill, and restoration of the property in accordance with the Final Design - Generic RAP and the Property-Specific RAP. Figure 2-1 shows the areas where excavation occurred on the property and the locations of excavation confirmation samples. Excavation confirmation samples were collected in accordance with Section 3.2.3 – Confirmatory Sampling of the Final Design - Generic RAP, including adherence to the sampling frequency requirements. X-ray fluorescence (XRF) excavation confirmation sampling results are presented in Table 2-1. As indicated in Table 2-1, all confirmation sampling results indicate total lead concentrations less than the criteria of 400 mg/kg approved by CTDEP in the Final Design - Generic RAP.

The following is a description of changes from the Property-Specific RAP that were necessitated because of field conditions:

- Additional fill material was located on the property outside of the originally expected areas presented in the Property-Specific RAP and the Final Design Generic RAP.
- In some locations, fill material was encountered at a depth greater than 4 feet bgs. This fill material was left in place, covered by an orange geotextile fabric, and backfilled with clean soil in accordance with the Final Design Generic RAP. Figure 2-1 shows the approximate area of geotextile fabric identifying the presence of fill at a depth greater than 4 feet bgs. This area extends from the center of the front yard toward the sidewalk that runs between the house and Prospect Lane.

Photographs of construction activities and the restored property are presented in Attachment A.

3.0 REFERENCES

- CTDEP, 2003. Order No. SRD-128, State Of Connecticut vs. Town Of Hamden, South Central Connecticut Regional Water Authority, State Board Of Education, and Olin Corporation. State of Connecticut Department of Environmental Protection, April 16, 2003.
- CTDEP, 2007. Remedy Selection Plan, Newhall Street, Neighborhood Remediation Project. State of Connecticut Department of Environmental Protection, October 2007
- MACTEC, 2008. Final Design Generic Remedial Action Plan, Non-Public Properties, Newhall Street Neighborhood, Hamden, Connecticut. MACTEC Engineering and Consulting, Inc., August 19, 2008.
- MACTEC, 2009. Property-Specific Remedial Action Plan, 40 Prospect Lane, Non-Public Properties, Newhall Street Neighborhood, Hamden, Connecticut. MACTEC Engineering and Consulting, Inc., February 2, 2009.

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FIGURES



TABLES

TABLE 2-1 EXCAVATION CONFIRMATION XRF SAMPLING RESULTS

40 PROSPECT LANE - NEWHALL STREET NEIGHBORHOOD HAMDEN, CONNECTICUT

Location ID	Location Type	Field Sample ID	Sample Date	Top Depth (ft,bgs)	Bottom Depth (ft,bgs)	Parameter	Result	Final Qualifier	Unit of Measure
S0040PL02	PES	S0040PL-SON0201EX	08-Sep-10	1	1	Lead	75		MG/KG
S0040PL03	PES	S0040PL-SON0301EX	08-Sep-10	1	1	Lead	50	U	MG/KG
S0040PL04	PEB	S0040PL-SON0402EX	08-Sep-10	2	2	Lead	50	U	MG/KG
S0040PL05	PEB	S0040PL-SON0504EX	08-Sep-10	4	4	Lead	50	U	MG/KG
S0040PL06	PEB	S0040PL-SON0602EX	08-Sep-10	2	2	Lead	50	U	MG/KG
S0040PL07	PES	S0040PL-SON0701EX	08-Sep-10	1	1	Lead	86		MG/KG
S0040PL08	PES	S0040PL-SON0801EX	08-Sep-10	1	1	Lead	50	U	MG/KG
S0040PL09	PES	S0040PL-SON0901EX	08-Sep-10	1	1	Lead	50	U	MG/KG
S0040PL10	PEB	S0040PL-SON1002EX	08-Sep-10	2	2	Lead	73		MG/KG
S0040PL11	PEB	S0040PL-SON1102EX	09-Sep-10	2	2	Lead	50	U	MG/KG
S0040PL12	PES	S0040PL-SON1201EX	09-Sep-10	1	1	Lead	50	U	MG/KG
S0040PL13	PES	S0040PL-SON1301EX	09-Sep-10	1	1	Lead	67		MG/KG
S0040PL14	PES	S0040PL-SON1402EX	09-Sep-10	2	2	Lead	50	U	MG/KG
S0040PL15	PES	S0040PL-SON1502EX	09-Sep-10	2	2	Lead	50	U	MG/KG
S0040PL16	PES	S0040PL-SON1601EX	15-Sep-10	1	1	Lead	142		MG/KG
S0040PL17	PES	S0040PL-SON1701EX	15-Sep-10	1	1	Lead	290		MG/KG
S0040PL18	PES	S0040PL-SON1803EX	15-Sep-10	3	3	Lead	73		MG/KG

Notes: bgs - below ground surface

ft - feet

KG - kilograms

MG - milligrams

PEB - sample from bottom of excavation

PES - sample from perimeter of excavation

U - not detected at a concentration above the reporting limit

XRF - x-ray fluorescence

ATTACHMENT A

PHOTOGRAPHS



View looking northeast at excavation in back yard.



View looking southeast at excavation in side yard.



View looking northeast at backfilled back yard.



View looking northeast at fully restored back yard.



View looking north at excavation in front yard following placement of marker barrier.



Looking northwest from across Prospect Lane at full restored property.