



3855 North Ocoee Street, Suite 200  
Cleveland, TN 37312

SENT BY FEDERAL EXPRESS

March 3, 2014

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

Re: Final Inspection Report  
Newhall Street Neighborhood  
113 Bryden Terrace, Block C  
Hamden, Connecticut 06517

Dear Mr. Bowe:

Enclosed please find the Final Inspection Report (FIR) prepared for the property located at 113 Bryden Terrace in Hamden, Connecticut. The Remedy Selection Plan requires that restored items and landscaping for properties participating in the Newhall Street Neighborhood Soil Remediation Program be inspected semi-annually for a period of two years after restoration of the property is complete. This FIR includes photographs of the restored property taken during the semi-annual inspections and provides documentation that the four semi-annual inspections were completed as required.

Olin has completed its obligations on this property pursuant to Consent Order No. SRD-128, the Remedy Selection Plan, and the Final Design/Generic RAP. In accordance with these documents, Olin hereby submits this Final Inspection Report to the Connecticut Department of Energy and Environmental Protection. As noted below, a copy of the enclosed report has also been provided to the property owner.

Sincerely,  
OLIN CORPORATION

A handwritten signature in black ink, appearing to read "David M. Share".

David M. Share  
Director, Environmental Remediation

cc: Frank Petrillo c/o Alicia Norris – 113 Bryden Terrace, Hamden, Connecticut 06517  
Curt Richards – Olin  
Carrie Hunt – Olin  
Nelson Walter – AMEC  
Ray Frigon – DEEP  
Dale Kroop – Hamden Economic Development Corporation

**FINAL INSPECTION REPORT  
113 BRYDEN TERRACE**

**NON-PUBLIC PROPERTIES  
NEWHALL STREET NEIGHBORHOOD  
HAMDEN, CONNECTICUT**

*Prepared for:*



**Olin Corporation  
3855 North Ocoee Street, Suite 200  
Cleveland, TN 37312**

*Prepared by:*



**AMEC Environment & Infrastructure, Inc.  
1090 Elm Street, Suite 201  
Rocky Hill, Connecticut 06067**

**March 3, 2014**

**AMEC Project Number: 6107140004.202**

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113 BRYDEN TERRACE**

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A handwritten signature in black ink that reads "Nelson Walter".

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Nelson Walter, P.E.  
Project Manager

A handwritten signature in black ink that reads "J. Rod Pendleton".

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Rod Pendleton, P.G  
Principal Scientist

## 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 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



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Chief Executive Officer (or duly authorized representative)  
Olin Corporation

Nelson Walter, Project Manager



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AMEC Environment & Infrastructure, Inc.

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## ATTACHMENTS

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A Photographs

## ACRONYMS AND ABBREVIATION

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AMEC	AMEC Environment & Infrastructure, Inc.
DEEP	Connecticut Department of Energy and Environmental Protection
FIR	Final Inspection Report
NPP	Non-Public Properties
Olin	Olin Corporation
RAP	Remedial Action Plan
RAR	Remedial Action Report
RSP	Remedy Selection Plan

## 1.0 INTRODUCTION

This Final Inspection Report (FIR) was prepared by AMEC Environment & Infrastructure, Inc. (AMEC) on behalf of Olin Corporation (Olin) for the property located at 113 Bryden Terrace in Hamden, Connecticut. The Remedy Selection Plan requires that properties participating in the Newhall Street Neighborhood Soil Remediation Program be inspected semi-annually for a period of two years after excavation and restoration of the property is complete. According to the Remedy Selection Plan, Olin was required to replant, repair or replace any restored feature for which restoration was not successful during the two-year time frame (i.e. not successful due to reasons other than the standard level of care expected to be provided by the property owner, such as watering new lawn areas). This FIR includes photographs of the restored property taken during the semi-annual inspections and provides documentation that the four semi-annual inspections were completed as required. Based on observations made during the four post-construction inspections, items that were not successfully restored and/or plantings that did not survive the two year “warranty” period were replaced.

This report was prepared to document that Olin’s obligations on this property relative to Consent Order No. SRD-128, the Remedy Selection Plan, and the Final Design/Generic RAP have been fulfilled and that no further inspections of this property will be performed.

### 1.1 Regulatory Status

In April 2003, the Connecticut Department of Energy and Environmental Protection (DEEP) entered into Consent Order No. SRD-128 with Olin, the Town of Hamden, South Central Connecticut Regional Water Authority, and the State Board of Education (DEEP, 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. Olin has fulfilled all obligations relative to this property pursuant to the Consent Order.

### 1.2 Description of Remedy Process

In October 2007, a Final Remedy Selection Plan (RSP) was approved and issued by the Commissioner of the DEEP (DEEP, 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) (AMEC, 2008), was approved by the DEEP 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, disposal 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 DEEP. 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 DEEP website at: <http://www.newhallinfo.org>.

During the 2011 construction season, Olin completed the excavation, backfill, and restoration of the subject property in accordance with the Final Design - Generic RAP and the Property-Specific RAP.

### **1.3 Description of Restoration Process**

To the extent practicable and feasible, existing features disturbed during excavation activities were restored to conditions comparable to those which existed prior to remediation. The Generic RAP provides details and specifications for general features such as pavement, sidewalks, utilities and lawns.

For properties where it was known that waste fill was present, prior to excavation a detailed inventory of the property was completed and a Property Specific RAP was prepared. The restoration plans were finalized during development of the Property-Specific RAP and were noted on the property figure provided as an attachment to the Access and Restoration Agreement prior to being signed by the property owner. For properties where it was not known that waste fill existed, a Property Specific RAP was not able to be prepared in advance of excavation activities. In these cases, existing site features were documented in the field and were noted on the property figure provided as part of the Access and Restoration Agreement prior to being signed by the property owner.

Following restoration of each property, a post-construction inspection was completed. During this initial inspection, property conditions were documented and observations were made to confirm that restoration plans documented as part of the Property-Specific RAP and/or Access and Restoration Agreement were followed. Information collected during these post-constructions inspects as well as property-specific construction details were summarized in a Property- Specific Remedial Action Report (RAR). Property-Specific RARs were completed for each property within the Consent Order boundary where excavation activities were completed. These reports were submitted to the property owners and were subsequently approved by the DEEP.

## 2.0 PROPERTY SPECIFIC INSPECTION INFORMATION

Semi-annual inspections of the subject property were completed in the Spring and Fall of 2012 and the Spring and Fall of 2013. Efforts were made to perform the inspections during the natural growing season of the restored plants and trees, so that plants and trees in a natural dormant stage were not misidentified as dead or unhealthy.

During each inspection, field personnel used the figure provided in the Property-Specific RAR depicting post-construction conditions as a guide to inspect property features that were replaced following excavation activities. Field personnel took notes and photographs of the condition of restoration features such as grass, plantings, fences, patios, decks and sidewalks. After each inspection, a list of unsatisfactory features, if any, was created, and the specific items were replaced or repaired.

Following the final inspection in the Fall of 2013, the condition of all restored features is in accordance with the project specifications and no further inspections are scheduled. Photos from each of the four semi-annual inspections are presented in Attachment A.



### **3.0 REFERENCES**

- DEEP, 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 Energy and Environmental Protection, April 16, 2003.
- DEEP, 2007. Remedy Selection Plan, Newhall Street, Neighborhood Remediation Project. State of Connecticut Department of Energy and Environmental Protection, October 2007.
- AMEC, 2008. Final Design - Generic Remedial Action Plan, Non-Public Properties, Newhall Street Neighborhood, Hamden, Connecticut. AMEC Environment & Infrastructure, Inc., August 19, 2008.

Olin Corporation  
Newhall Street Neighborhood Site, Hamden, Connecticut  
Final Inspection Report – 113 Bryden Terrace

## **ATTACHMENT A PHOTOGRAPHS**



**View looking northeast during the Spring 2012 inspection.**



**View looking north during the Fall 2012 inspection.**



**View looking south during the Spring 2013 inspection.**



**View looking north during the Fall 2013 inspection.**