

**SITE MANAGEMENT PLAN  
Industrial Welding Site-Operable Unit 3  
(Packard Road Site)**

**Niagara Falls, New York**

*Prepared for:*



**Olin Corporation  
Environmental Remediation Group  
Charleston, Tennessee**

*Prepared by:*



**MACTEC Engineering and Consulting, P.C.**

*In Association With*

**MACTEC Engineering and Consulting, Inc.**

**Kennesaw, Georgia**

**February 15, 2008**

**Revised August 19, 2008**

**MACTEC Project No. 6100-07-0005**



*engineering and constructing a better tomorrow*

August 27, 2008

Mr. Mike Bellotti  
Olin Corporation  
3855 North Ocoee Street  
Suite 200  
Cleveland, TN 37312

Subject:       **Letter of Transmittal  
Revisions to Documents  
Industrial Welding Site - Operable Unit 3 (Packard Road Site)  
MACTEC Project: 6100-07-0005**

Dear Mr. Bellotti:

MACTEC Engineering and Consulting, P.C., in association with MACTEC Engineering and Consulting, Inc., (MACTEC) is pleased to provide you with electronic files of the Remedial Construction Certification Report and the Site Management Plan for Operable Unit 3 (OU3) for the Industrial Welding Site (Packard Road Site), revised on August 19, 2008. The revised reports include pages which were prepared in response to comments provided by NYSDEC in a letter to Olin dated July 30, 2008.

In accordance with a phone discussion between Rick Marotte of MACTEC and Jeffrey Konsella of NYSDEC on August 5, 2008, selected pages of the reports were revised in response to all but comment 2 on page 2 of the above referenced letter. This comment requests that Olin provide a certification statement (consisting of 3 paragraphs) that includes reference to an executed and recorded Environmental Easement. This form has not been completed. As agreed to by Mr. Konsella, the certification statement will be submitted to NYSDEC after the Environmental Easement has been executed by Olin and recorded and accepted by the State of New York. Mr. Konsella will be providing Olin with the necessary paperwork for this easement.

Revisions were made to Section 8.0 of the Remedial Construction Certification Report, Section 5.0 of the Site Management Plan, and the report cover pages as itemized below.

Revisions to Remedial Construction Certification Report:

- Cover pages (2)
- Section 8.0, page 8-2

Revisions to Site Management Plan:

- Cover page
- Section 5.0, pages 3 and 4


*Aug. 27, 2008*


The above listed pages supersede the previously issued pages of the reports dated February 15, 2008. We are enclosing three CDs, each containing: revised Remedial Construction Certification Report; revised Site Management Plan; and separate scanned copies of the revised pages (in two files) with the changes annotated. One CD is for your files and two CDs are for transmittal to NYSDEC.

MACTEC appreciates the opportunity to be of service to Olin Corporation. If you have any questions or comments about this project please do not hesitate to call us at (770) 421-3400.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, P.C.**

  
Glenn N. Coffman, P.E.  
Vice President

  
Frederick K. Marotte  
Project Manager  
MACTEC Engineering and Consulting, Inc.

Enclosures: Three CDs containing revised reports and scanned revised pages as itemized in this letter



*engineering and constructing a better tomorrow*

February 18, 2008

Mr. Mike Bellotti  
Olin Corporation  
3855 North Ocoee Street  
Suite 200  
Cleveland, TN 37312

Subject: LETTER OF TRANSMITTAL  
Site Management Plan  
Industrial Welding Site - Operable Unit 3 (Packard Road Site)  
MACTEC Project: 6100-07-0005


Dear Mr. Bellotti:

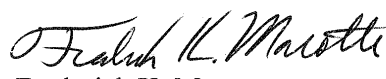
MACTEC Engineering and Consulting, P.C., in association with MACTEC Engineering and Consulting, Inc., (MACTEC) is pleased to provide you with the Site Management Plan for the Industrial Welding Site - Operable Unit 3 (Packard Road Site).

MACTEC appreciates the opportunity to be of service to Olin Corporation. If you have any questions or comments about this project please do not hesitate to call us at (770) 421-3400.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, P.C.**

  
Glenn N. Coffman, P.E.  
Vice President

  
Frederick K. Marotte  
Project Manager  
MACTEC Engineering and Consulting, Inc.

Enclosures: Site Management Plan

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## **SITE MANAGEMENT PLAN**

### **INDUSTRIAL WELDING SITE – OPERABLE UNIT 3 (Packard Road Site) Niagara Falls, New York**

#### **1.0 INTRODUCTION**

Remedial action was performed at the Packard Road Site (Site), Operable Unit 3 (OU 3) of the Industrial Welding Inactive Hazardous Waste Site (IWS) located in Niagara Falls, New York. The field work was performed between May 21 and August 10, 2007. The remedial action represents implementation of the Final Remedial Design Report, dated March 9, 2007, approved by NYSDEC on March 21, 2007. The Site is contiguous to the IWS OU 1 that was previously remediated to fulfill a portion of the requirements set forth in an Order on Consent executed March 3, 1997 between NYSDEC and Olin Corporation (Olin).

Remediation activities for OU 3 included the installation of erosion, sediment and stormwater control during remediation; removal of debris and preparation of the site; stormwater drainage system construction; low-permeability asphalt cover system construction; repair and seal coating of the existing adjacent asphalt cover (a portion of IWS OU 1); installation of a perimeter chain link security fencing; and construction of a site entrance.

This Site Management Plan is a stand-alone document that presents the following information:

- 1) An environmental easement to limit use and development to commercial and industrial uses which do not impact the integrity of the cover system and drainage features;
- 2) A description of all institutional and engineering controls;
- 3) References to an addendum to the existing Operations and Maintenance Manual, which includes revisions made specifically resulting from the OU 3 activities; and
- 4) Acknowledgement that an annual inspection will be conducted to be assured that the institutional and engineering controls are in place and effective.

## **2.0 ENVIRONMENTAL EASEMENT**

An environmental easement, prepared by Olin Corporation for the IWS OU 3, is included as Attachment A. This easement will provide the necessary assurance that future site use and development will be limited to industrial uses consistent with maintaining the integrity of the cover and drainage system.

## **3.0 ENGINEERING AND INSTITUTIONAL CONTROLS**

Engineering and institutional controls have been incorporated into the remedial design for OU 3 and this Site Management Plan. Implementation of the Engineering Controls has taken place, and they will be maintained to perform in an effective manner. Implementation of Institutional Controls will be an ongoing process as described below.

### **3.1 Engineering Controls**

- Installation of a low-permeability asphalt cover system over the entire OU 3 area
- Installation of a 6-foot high chain link security fence along the property line in all areas not previously fenced

### **3.2 Institutional Controls**

- Restriction of groundwater usage

Groundwater under the property will not be used as a source of potable water, without necessary water quality treatment as determined by the New York State Department of Health (NYS DOH).

- Restriction of any penetration of the asphalt cover other than for purposes consistent with the long-term management of the site as approved by NYSDEC

Any proposed soil excavations on the property or disturbance of the asphalt cover requires prior notification and prior approval of NYSDEC in accordance with all applicable laws and regulations. If approval is granted, the excavated soil will be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

- Restriction of any usage of the asphalt pavement (asphalt cover) for purposes other than for site inspections, OU 1 groundwater monitoring, and maintenance activities

Under normal site operations, access to the asphalt cover will be limited to foot traffic. As is minimally necessary, only light-duty vehicles with rubber tires will be allowed on the cover for scheduled inspections, maintenance, and sampling events. Ongoing site maintenance may require occasional access by larger equipment. If large equipment is required, additional measures will be developed as necessary to protect the integrity of the asphalt cover. Cover access will be planned so as to preclude the need for snow removal. Vehicles will not be allowed to access the asphalt cover during hot weather periods when the cover surface may be susceptible to distortion due to softening. Vehicles that are leaking fuel, oil, or other solvent material will not be allowed to access the asphalt cover. The asphalt cover will not be used as a parking lot or work platform for visitors and contractors.

#### **4.0 ADDENDUM TO OPERATIONS AND MAINTENANCE (O&M) MANUAL**

Since remediation of OU 3 utilized an asphalt cover design similar to a portion of OU 1, O&M activities required for OU 3 are similar to O&M activities for the OU 1 asphalt cover. An addendum to the O&M Manual has been prepared for OU 3 and incorporated into the existing O&M Manual. A copy of the addendum is included as Attachment B.

#### **5.0 ANNUAL SITE INSPECTION AND CERTIFICATION**

An annual site inspection of IWS OU 3 will be incorporated into the inspection activities that occur for OU 1, thus making the annual inspection a site-wide event. Maintenance will be performed as required. On an annual basis, a professional engineer or qualified environmental professional will provide certifications to the NYSDEC (Department) in writing that the institutional and engineering controls employed at the Site are:

- unchanged from the previous certification (or describes changes which were approved by the Department);
- in place and effective;



- performing as designed; and
- that nothing has occurred that would impair the ability of the controls to protect the public health and environment; or constitute a violation or failure to comply with any element of the Site Management Plan for such controls.

**END OF SITE MANAGEMENT PLAN**

**ATTACHMENT A**  
**ENVIRONMENTAL EASEMENT**

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36  
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this \_\_\_\_ day of \_\_\_\_\_, 2008, between Olin Corporation, a Virginia corporation with its principal offices at 190 Carondelet Plaza, Suite 1530, Clayton, Missouri 63105-3443 (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("brownfield sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of environmental easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to properly perform and be effective, or which requires groundwater use or soil management restrictions; and

**WHEREAS**, the Legislature of the State of New York has declared that environmental easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a brownfield site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and;

WHEREAS, Grantor, is the owner of real property located in the City of Niagara Falls, Niagara County, New York known and designated on the tax map of Niagara County as parcel number SBL 159.12.1.7, section 159, block 12-1, lot 7, comprised of approximately 3.8 acres, and hereinafter more fully described in Schedule A attached hereto and made a part hereof ( the "Controlled Property"); and;

**WHEREAS**, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the covenants and mutual promises contained herein and the terms and conditions of Order on Consent Index Number B9-0016-90-09, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant. to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The following controls apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:

A. The Controlled Property may be used for

commercial  
industrial

use as long as the following long-term engineering controls are employed:

**(i) any proposed soil excavations on the property or disturbance of the asphalt cover requires prior notification and prior approval of NYSDEC in accordance with the Site Management Plan approved by NYSDEC for this Controlled Property and the excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.**

**(ii) groundwater under the property may not be used as a source of potable water, without necessary water quality treatment as determined by NYSDOH.**

The Grantor hereby acknowledges receipt of a copy of the NYSDEC-approved Site Management Plan, dated \_\_\_\_\_ ("SMP"). The SMP describes obligations that Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system on the Controlled Property, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The Department may change the SMP for the Controlled Property from time to time on the basis of requests or information submitted by Grantor, and modifications in applicable statutes regulations, guidance or site conditions. The Department reserves a unilateral right to modify the SMP. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer:  
Region 9  
NYS DEC  
270 Michigan Avenue  
Buffalo, New York 14203-7226

or:

Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, New York 12233

B. The Controlled Property may not be used for a higher level of use such as unrestricted/residential and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent

instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.**

D. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

E. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

1. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

2. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

5. Enforcement.

A. This environmental easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this environmental easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person intentionally violates this environmental easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 27, Title 14, or the Satisfactory Completion of Project provided under ECL Article 56, Title 5 with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a

reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental easement.

6. Notice. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the its County tax map number or the Liber and Page or computerized system tracking/identification number and address correspondence to:

Division of Environmental Enforcement  
Office of General Counsel  
New York State Department of Environmental Conservation  
625 Broadway  
Albany New York 12233-5500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. This environmental easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This environmental easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

**IN WITNESS WHEREOF**, Grantor has caused this instrument to be signed in its name.

**OLIN CORPORATION**

By: \_\_\_\_\_

Curtis M. Richards

Title: Corporate Vice-President, Environmental, Health & Safety

Date: \_\_\_\_\_

**THIS ENVIRONMENTAL EASEMENT IS HEREBY  
ACCEPTED BY THE PEOPLE OF THE STATE OF NEW  
YORK**, Acting By and Through the Department of Environmental  
Conservation

By: \_\_\_\_\_  
Denise M. Sheehan, Commissioner

**Grantor's Acknowledgment**

STATE OF TENNESSEE       )  
  ) ss:  
COUNTY OF BRADLEY \_\_\_\_\_)

On the \_\_\_\_\_ day of January, in the year 2008, before me, the undersigned, personally appeared Curtis M. Richards, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public - State of Tennessee

My commission expires: \_\_\_\_\_

**Grantee's Acknowledgment**

STATE OF NEW YORK       )  
  ) ss:  
COUNTY OF \_\_\_\_\_)

On the \_\_\_\_\_ day of \_\_\_\_\_, in the year 2007, before me, the undersigned, personally appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity as Commissioner of the State of New York Department of Environmental Conservation, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
Notary Public - State of New York



**SCHEDULE****Description of Property**

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Niagara Falls, County of Niagara and State of New York, being part of Lot 4 of the Stedman Farm and parts of Plots Numbered 4, 5 & 6 according to a map by Julius Frehsee filed in the Niagara County Clerk's Office in microfilm map book 1 at page 10, more particularly bounded and described as follows:

Beginning at the point of intersection of the southwesterly extension of the northwesterly line of a 14-foot strip of land conveyed to the City of Niagara Falls in Liber 540 of deeds at page 470, said 14-foot strip being adjacent to and on the westerly side of Packard Road (being 66 feet wide), said point being 132 feet north of the north line of Buffalo Avenue (being 66 feet wide), measured at right angles therefrom, said point being also the southeasterly corner of lands conveyed to Industrial Welding Corporation in Liber 1425 of deeds at page 117;

Running thence northeasterly along said southwesterly extension of, and along the northwesterly line of said 14-foot strip of land a distance of 209.89 feet to a monument with a cross cut;

Continuing thence northeasterly along said northwesterly line of 14-foot strip of land at an interior angle of 168°-48'-40" a distance of 228.03 feet to the southeasterly corner of lands conveyed to Portage Post No. 1465, American Legion by Liber 1672 of deeds at page 7;

Running thence westerly along southerly line of said Portage Post No. 1465, American Legion lands a distance of 612.42 feet to a point on the westerly line of lands conveyed to Industrial Welding Corporation in Liber 1468 at page 1121, said point being the southwesterly corner of said Portage Post No. 1465, American Legion lands;

Running thence southeasterly along said westerly line of lands conveyed to Industrial Welding Corporation in Liber 1468 at page 1121 a distance of 296.60 feet to a point in the northerly line of lands formerly owned by the International Railway Company;

Running thence easterly along said northerly line of lands formerly owned by the International Railway Company a distance of 95.14 feet to the southwesterly corner of lands conveyed to The Mathieson Alkali Works, Inc. in Liber 857 of deeds at page 118, said point being 523.07 feet distant easterly from the easterly line of 27<sup>th</sup> Street (being 60 feet wide) as measured along said northerly line of lands formerly owned by the International Railway Company, said point also being 0.2 feet north of a monument with cross cut;

Running thence southerly along the westerly line of said lands conveyed to Industrial Welding Corporation in Liber 1425 of deeds at page 117 a distance of 60.27 feet to a point on the northerly line of lands formerly owned by Erie Railroad, said point being the southwest corner of aforesaid Industrial Welding Corporation lands;

Running thence easterly along said northerly line of lands formerly owned by Erie Railroad and along southerly line of said lands conveyed to Industrial Welding Corporation in Liber 1425 of deeds at page 117 a distance of 224.41 feet to the point of beginning;

Containing 3.8 acres of land, more or less.

Subject to an easement to Niagara Mohawk Power Corporation in Liber 1460 of deeds at page 847.

Premises may also be subject to apparent easement shown on map showing easement through properties of Olin-Mathieson Chemical Corp., John L. Thaler and Industrial Welding Corp. drawn & approved by (Niagara Falls) City Engineer dated 12/22/1965 drawing no. 190-e (file as dwg. no. 7062) with an existing water main & existing 12" sewer shown there-on.

Subject to any other easements, rights of way or restrictions of record.

**ATTACHMENT B**

**ADDENDUM 1 TO IWS OPERATIONS AND MAINTENANCE MANUAL**

**ADDENDUM 1 TO  
OPERATIONS AND MAINTENANCE MANUAL  
Industrial Welding Site  
Niagara Falls, New York**

*Prepared for:*  
**Olin Corporation  
Environmental Remediation Group  
Charleston, Tennessee**

*Prepared by:*  
**MACTEC Engineering and Consulting, P.C.**

*In Association With*  
**MACTEC Engineering and Consulting, Inc.**

**Kennesaw, Georgia**

**February 15, 2008  
MACTEC Project No. 6100-07-0005**

## **INTRODUCTION**

*The following paragraph supplements Section 1.0 of the O&M Manual dated September 15, 2000*

This document is an addendum to the “Operations and Maintenance (O&M) Manual, Industrial Welding Site”, prepared for Olin Corporation by Law Engineering and Environmental Services, P.C., dated September 15, 2000. The O&M Manual was relevant to Industrial Welding Site, Operable Unit 1 (IWS OU 1). This addendum serves as an update to the O&M Manual and presents the requirements for operation and maintenance of the remedial construction performed at the Packard Road Site, Operable Unit 3 (OU 3) of the Industrial Welding Inactive Hazardous Waste Site. It has been prepared to fulfill the requirements of the NYSDEC in their March 21, 2007 approval letter for the “Final Remedial Design Report, Industrial Welding Site – Operable Unit 3 (Packard Road Site),” dated March 9, 2007. The O&M activities for the Packard Road Site will be performed in conjunction with the activities performed for IWS OU 1. The results of O&M activities for both operable units will be recorded and reported together as a single Industrial Welding Site.

## **PROJECT LOCATION**

*The following paragraph supplements Section 1.1 of the O&M Manual dated September 15, 2000.*

The Packard Road Site is bounded by parking lots adjacent to Buffalo Avenue to the south, and Veterans Drive (Packard Road) and Gill Creek to the east in the City of Niagara Falls, New York. The Packard Road Site is immediately south of the IWS OU 1 which was remediated in 1999. The Packard Road Site comprises approximately 3.7 acres within the limits of the new asphalt cover. The Site Plan, provided as Figure 1.2, shows the project location and depicts the locations of key site O&M components for the Packard Road Site.

## **OPERATIONS AND MAINTENANCE ACTIVITIES**

*The following paragraph supplements Section 1.2 of the O&M Manual dated September 15, 2000.*

Components of the Packard Road Site remedial construction and O&M activities addressed by this Addendum 1 to the O&M Manual are:

- Perimeter security fencing

- Asphalt concrete cover system
- Stormwater drainage system
- Storm drain sampling and analysis

### **PERIMETER SECURITY FENCING**

*The following paragraph supplements Section 2.0 of the O&M Manual dated September 15, 2000.*

Chain link fencing and a locked gate control access to the Packard Road Site and adjacent IWS. The locked gate is located at the site entrance along Veterans Drive where indicated on Figure 1.2. Routine maintenance and inspection of the fencing will be performed in accordance with the applicable procedures presented in Section 2.0.

### **ASPHALT CONCRETE COVER SYSTEM**

*The following paragraphs supplement Section 4.0 of the O&M Manual dated September 15, 2000.*

The constructed asphalt concrete cover on the Packard Road Site consists of a 6-inch minimum thickness aggregate base course, overlain by a 2 ½ - inch thick asphalt binder course and a 1-inch thick asphalt concrete surface course.

Routine maintenance and inspection of the asphalt cover will be performed in accordance with the applicable procedures presented in Section 4.0, with the following modifications:

- The existing IWS asphalt cover was repaired and seal coated as part of the remedial construction in 2007. Depending on results of future inspections, seal coating may not be required for several years (see below).
- The new asphalt cover constructed in 2007 should be seal coated in 2008. The seal coat should last for approximately 3 years.

Olin will evaluate the need and schedule for maintenance and perform the work accordingly.

## **STORMWATER DRAINAGE SYSTEM**

*The following paragraphs supplement Section 4.0 of the O&M Manual dated September 15, 2000.*

The Packard Road Site stormwater (surface water) drainage system is comprised of five precast concrete drop inlets with drainage grates, one precast concrete junction manhole (MH 2), a headwall and approximately 975 linear feet of 24-inch and 18-inch reinforced concrete pipes (RCP). A 24-inch RCP was installed under Veterans Drive to transport stormwater from the manhole to the headwall outlet at Gill Creek. Riprap (rock outlet protection) was installed at the headwall outlet on the bank of Gill Creek.

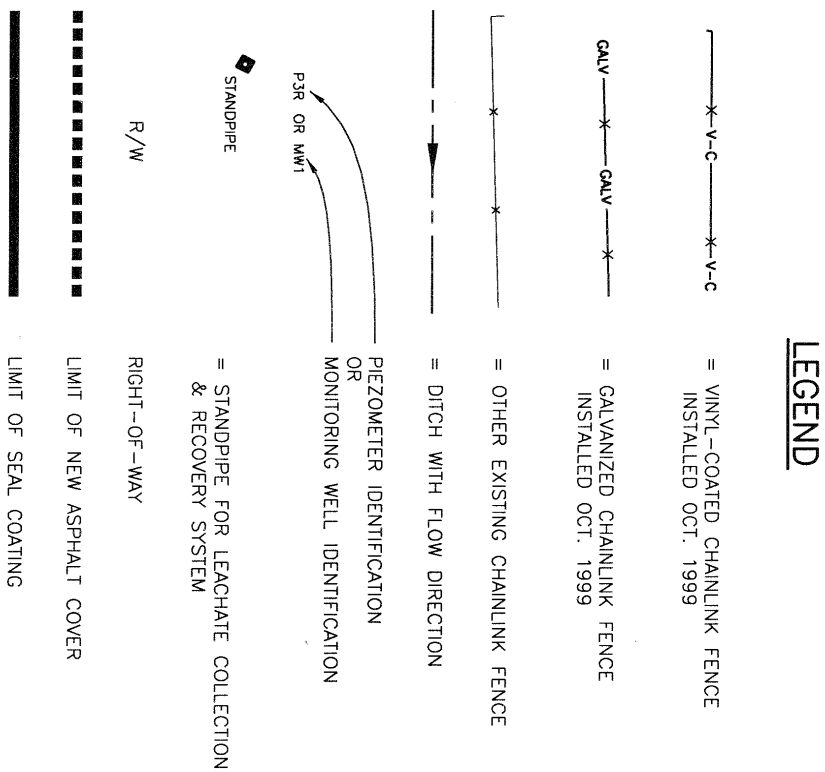
Routine maintenance and inspection of the surface water drainage system will be performed in accordance with the applicable procedures presented in Section 3.0.

## **STORM DRAIN SAMPLING AND ANALYSIS**

*The following paragraphs supplement Section 6.3 of the O&M Manual dated September 15, 2000.*

A grab sample of water in the storm drainage system for the Packard Road Site will be collected semi-annually from a sample point located along the alignment of the 24-inch RCP approximately 50 feet southeast of MH 2 near the eastern fence line. The sample point consists of a 6-inch diameter PVC sampling riser that penetrates the top of the 24-inch RCP, allowing a point of access for the introduction of sampling equipment. Figure 1.2 shows the location of the storm drain sampling point.

Storm drain sampling and analytical testing will be in accordance with the procedures discussed Section 6.3.



NOTE: SOURCE OF SITE PLAN BASE MAP: RECORD DRAWINGS OF IWS WORK, SEPT. 2000.

SCALE IN FEET



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IWS OUS (PACKARD ROAD SITE)  
NIAGARA FALLS, NEW YORK

# OVERALL SITE PLAN

JOB NO. 6300-06-0001

FIGURE 1.2

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Stephen G. Lind 12/11/07