

**Response to DEP Comments on Olin Corporation's Draft Final Design,
Generic Remedial Action Plan - Non-Public Properties, Newhall Street Neighborhood,
Hamden, Connecticut (the site)**

**Prepared by MACTEC Engineering and Consulting, Inc.
on behalf of Olin Corporation
Dated August 19, 2008**

1. *p. 1-3, Section 1.2 Objectives, paragraph 3.* "Each Property-Specific RAP will contain information regarding terms of access, pre-construction activities, anticipated remedial construction activities, terms of property restoration." The Property-Specific RAP should also contain an excerpt of the Generic RAP regarding temporary relocation, even if the cleanup and restoration of a property is not anticipated to require temporary relocation.

Response: Relocation requirements have been added to the list of information required for each Property-Specific RAP.

2. *p. 3-2, Section 3.1.4 Relocation.* "A Relocation Plan will be developed during preparation of the Property Specific Remedial Action Plans ... and will be generally consistent with DOT 49 CFR Part 24 and EPA 'Superfund Response Actions: Temporary Relocations Implementation Guidance' guidance documents." The Commissioner has stated that the relocation process must follow the Uniform Relocation Act. What are the differences, if any, between the Superfund Response Actions: Temporary Relocations Implementation Guidance and the Uniform Relocation Act.

Response: The CT Uniform Relocation Assistance Act (URAA) applies to permanent relocation rather than temporary relocation, but requires 1) relocation payments, 2) advisory assistance, and 3) assurance of available housing. It requires that replacement housing be 1) decent, safe, and sanitary, 2) reasonably (or not less) accessible to public services and employment opportunities, and 3) within the financial means of the displaced persons.

The EPA's Superfund Response Actions: Temporary Relocations Implementation Guidance is simply a temporary relocation implementation guidance document, and specifically applies to situations where residents must be relocated due to environmental remediation activities. The EPA guidance does not apply to this project but is applicable to projects undertaken by a Federal agency or with Federal financial assistance.

The project will follow the requirements of the URAA and use the EPA document to provide implementation guidance, since the URAA does not specifically address temporary relocation.

Text has been revised as follows: "Temporary relocation of residents at individual properties will be based on the ability to: provide safe access; provide a safe environment; and maintain utility services. A Relocation Plan will be developed during preparation of the Property Specific Remedial Action Plans. The Relocation Plan will meet the requirements of the Connecticut Uniform Relocation Assistance Act."

3. p. 3-4, Section 3.2.2 Excavation of Fill Material, Excavation Next to Permanent Structures and Streets, paragraph 2. “Where fill material above 4 feet is left in place, a durable warning marker/barrier (orange geotextile) will be installed.” The durability of the marker or barrier material must be linked to the concentrations of pollutants that need to be left in place. The durability range of markers to barriers should range from snow fence material to spray-on concrete, or similar. Please identify the types of materials that are proposed to be applied as markers and barriers to waste fill within 4 feet of ground surface.

Response: Text has been revised as follows: “Where fill material above 4 feet is left in place with lead concentrations that exceed 400 mg/kg lead (and the 95% UCL lead concentration exceeds 400 mg/kg, or if an individual sample concentration exceeds 800 mg/kg lead), a durable warning marker/barrier will be installed. Warning marker/barriers with varying degrees of durability and resistance to disturbance will be used, as appropriate, based on verification testing results. The durable warning marker/barrier will likely range from orange snow/construction fencing or orange geotextile, to spray-on concrete (shotcrete) or a similar type barrier. A flowchart describing this decision process is included as Figure 3-1 on the following page. A detail illustrating excavations next to damaged building foundations or slab-on-grade structures is provided on the construction drawings.”

4. p. 3-6, Section 3.2.2 Excavation of Fill Material, Significant Trees and Landscape Items, paragraph 2. “...reasonable efforts will be used to ensure the survival of the tree, but if it dies due to remedial activity, it will not be replaced in kind, but with available nursery stock.” If a retained tree should die within two years of the remedial activity, an offer to replace the tree with available nursery stock must be made to the property owner.

Response: Text has not been revised to extend the offer to replace trees for two years. One year has been used as a one year time period is an industry standard. More discussion with DEP is needed on this topic prior to making a change to a longer time period. Text now reads as follows: “It is likely that many property owners would like to have significant or ornamental trees left on their property. If significant trees are required to be removed as part of the excavation activities, they will not be replaced in kind (size, canopy), but will be replaced with available nursery stock. Depending on the results of confirmatory sampling (see Section 3.2.3), some significant or ornamental trees within the fill could potentially be left in place. The procedure for excavating around trees where the desire is to leave the tree in place will be determined by lead concentrations and a qualified arborist or urban forester. Prior to conducting excavation activities, a qualified arborist will be consulted as to the viability of leaving the tree in place. The current health, vigor, age, and species of the tree are characteristics that need to be considered as to the ability of the tree to survive any environmental changes that may occur as a result of the excavation activities. Any decisions to retain trees or other site features within the fill limits will include assessment of analytical results for lead taken within the proximity of the tree or feature. The decision process to retain a tree is included as Figure 3-2 on the following page. If the conclusion to retain a tree is made, reasonable efforts will be used to ensure the survival of the tree, but if the tree dies within one year following the remedial activity, it will not be replaced in kind, but with available nursery stock.”

5. p. 3-7, Section 3.2.4 Additional Excavation due to Confirmatory Sampling, paragraph 3. “where excavation is not recommended due to the condition of a foundation, a written proposal... will be submitted requesting approval to leave the wedge of soil in place” In order for the DEP and Department of Public Health to evaluate a request to leave a wedge of waste fill in place, the request must include proposed construction details for the warning or barrier material.

Response: Text has been revised as follows: “For excavations adjacent to permanent structures with foundations that have structural integrity issues, an engineering off-set (as shown on the drawings) may be required and a wedge of soil will remain. If the lead concentrations exceed 400 mg/kg lead (and the 95% UCL lead concentration exceeds 400 mg/kg, or if an individual sample concentration exceeds 800 mg/kg lead), in the remaining soil wedge, a durable warning marker/barrier will be installed. Warning marker/barriers with varying degrees of durability and resistance to disturbance will be used, as appropriate, based on verification testing results. The durable warning marker/barrier will likely range from orange snow/construction fencing or orange geotextile to spray-on concrete (shotcrete) or a similar type barrier. A flowchart describing this decision process is included as Figure 3-1.”

6. *p. 3-11, Table - Permitting Requirements. Page 3-9 of the report generally states that waste fill that does not meet the specifications for disposal at the Tire Pond site may be amended to fix, solidify, or stabilize metals. It is understood that the selection of a fixation technology will be proposed after a treatability study. Olin must identify if the proposed amendment to waste fill will require the issuance of a permit?*

Response: The following note has been added at the end of Table: “Treatment of fill material that meets hazardous waste characteristics may be required. The treatment technology will be selected after a treatability study. The remedial contractor may be required to obtain a permit from CTDEP to conduct this treatment and if so, permit requirements will be identified in the treatability study report.”